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Review paper

THE EFFECTS OF EU ENLARGEMENT IN EMPIRICAL MODELS

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Abstract. *The literature devoted to the EU often points out its hybrid side, which is in the process of constant transformation. The process is comprehensive, in the economic, political, military and safety domain. This complex task is not timed, because it is considered a process and not a one-time act. The original idea that social changes have evolutive development and need time to become quality changes is not abandoned. Although today's EU environment is drastically changed compared to the late fifties of the last century, the main reasons for a country to join the EU have remained virtually the same. All of these reasons basically refer to the same aspirations of potential candidate countries for membership: economic, political, safety, cultural and others. Possession of an appropriate macroeconomic model and relatively useful statistical data is a conditio sine qua non of a successful analysis of the benefit and the cost of joining the EU.*

Key Words: *accession process, EU, accession effects, Cecchini report, empirical models of accession.*

INTRODUCTION

The last wave of enlargement, when in 2004, 2007, and 2013, 13 new countries, mostly underdeveloped compared to the old member states, were received in the EU brought about institutional, political, and economic consequences which the enlarged EU had to face. The accession of these countries to the EU took place between the two extremes. One extreme of the accession itself brings gains and long-term progress. At the other extreme of the country joining the EU, there can be only harm, and not benefit. Both approaches are based on an estimate, which is not based on facts, analysis or historical experiences of economic integration. Today, there is a well-developed analytical apparatus that can determine with enough precision the benefits and costs that a country which wants to have access to certain economic integration can expect. However, there are opinions that the models are often a mere „smoke screen" that allows

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you to prove what you want. Thereby, the used analytic economic policy and overall policy warns that measures should be taken to increase the positive and reduce the negative effects of accession integration. It is very difficult to quantify the overall effects of accession, but most studies argue that, in the long term, the new member states have huge benefits. With the expansion of 2004 and 2007, the forecasts emphasized the profit of 10 billion Euros, 300,000 new jobs and increased gross domestic product by 0.2 %. The effects of costs are one-time and part such that they will act at all times after the entry of new members into the Union. The emergence of some of the costs is considered economically favorable (for example, reduction of subsidies or closure of non-competitive firms), but in the socio-political sense these are undoubtedly short-term cost. Some authors believe that the bodies of the Union and the governments of potential new members continue to hide the cost and only glorify benefits. In this way, the actual impression that a new member will only have after entering is that of benefit, which of course is impossible. The practice of highlighting the benefits and suppressing the costs is very reminiscent of the „propaganda for happiness", which are used by the governments of communist countries.

Due to the fact that the Union has stimulated scientific papers in favor of extension and discouraged critical works, does not mean much to the conclusion that most of the literature considers extension to the EU and new member states good. Regardless of these views, it is obvious that the new members have to pay a price for entry into the Union. This price, however, is not the same for all; moreover, it can be drastically different from country to country. As far as trade is concerned, spectacular changes were not expected other than those that occurred after the removal of tariffs and other barriers in the nineties of the XX century. The main effects of enlargement on agriculture could be summed up in the expected significant growth in productivity of the agro-industrial complex in the candidate countries, whereby a large number of workers tended to drop in agricultural production. On the other hand, the effects on agriculture in the member states were very small due to the small share of this sector in the structure of GDP and employment.

1. The Motives of a Country to Join the EU

One of the main reasons for joining the European integration is, of course, economic. Economic cooperation presupposes the elimination of discrimination on the one hand and the establishment of harmonized or common policies on the other. Obviously, the benefits are comprised of access to a larger single market, which has enabled a number of benefits: improving competitiveness, productivity, promotion of scientific and technological cooperation, greater mobility of factors of production, the use of economies of scale, economic and monetary stability, and the use of EU Structural Funds. In practical terms, there is improvement of not only internal properties of the given economy, but also their relative position in the „world"market.

Closely related to economic are political reasons. It is known that the establishment of a common political heritage underlined the objective of closer connectivity. After the fall of communism in Eastern Europe has weakened the political motivation of the EU in terms of contrast and polarization system to Eastern European block. It is still, according to some authors, reflected in the preservation of high standards of social amenities and cultural specificities of the EU (Michelmann, 2004).

For these reasons, the methods of „inputs” and „outputs” should define the ways in which a country can access the EU as a sort of exclusive club, and the ways in which it could possibly leave this club. Under conditions of „cold war” and the deep division of Europe, there were not practical reasons to clearly define the „input „and” output”. Namely, instead of the exit there is effective protection of the right of veto. But in a situation where a deep and fundamental change in the whole of Europe was performed, and global institutions, associations and organizations (UN, WTO, IMF, World Bank, NATO, etc.) began redefining its role, it is essential to have a clearly defined „input” and „output” option. In such conditions of global change, the input option has become interesting for the remaining members of EFTA, as well as for all the countries in Central and South-Eastern Europe. Interestingly, the exit option has not been used, except in one case, when Greenland left i.e. its special status was regulated. Given that most of the EFTA countries have joined the EU (except Switzerland, Norway, Iceland and Liechtenstein), the Western Balkans countries appear to be the most important group of candidate countries for full membership in the EU.

Due to the proximity, economic importance and policy driven by deeper integration, the EU has taken on the role of creators of political and economic relations between these countries in order to accelerate the process of their (re)integration into the world economy. The accession process was also started in 2000 with the signing of the Stabilization and Association Agreement, under whose influence were also developed and function economic institutions, policies and performance of the Western Balkans. Some authors refer to these countries, which have started the process of systemic socio-economic transformation or transition, as „the new European democracies”. It should be noted that the Association does not necessarily lead to EU membership. According to H. P. Ipsen (Ipsen, 1992) joining is a long-term relationship of a state that stands outside the Union with the EU, which remains intact in terms of their organs and internal structure. So, part or limited membership cannot be achieved by joining. What is most commonly achieved by joining is a fuller participation of associated countries in the objectives of the Union, so that the relationship goes beyond the framework of conventional international trade agreements. This practically means that the EU and associated states become equal partners, whose cooperation is institutionalized at a higher level of mutual relations. Regarding the establishment and content of relations joining, there are special rules. They are associated to the sets in the „middle” position between full membership and the usual contractual partnerships. However, it is possible to properly define three conditions for joining the EU, which are related to the geographic, political and economic dimensions. The existence of these conditions can be partly inferred from the Treaty of Rome, partly on the basis of content agreements with certain countries that the EU has made so far.

Unlike joining, where there are virtually no geographical restrictions, full membership is „reserved” for European countries. Even though it was a clear criterion, it seems it is not realized to full extent. Greenland, for example, is thousands of miles away from Europe and closer to the United States. Malta may geographically belong to Europe and Africa, but culturally, historically and politically it is a part of Europe. At least there is clarity in Eastern Europe, where some believe Poland, Slovakia, Hungary are the borders of Europe, while others believe it is the Urals. A special case is that of Israel, whose population comes mainly from Europe, whose economic and political system is consistent with West-European, although the country is geographically located in Asia.

Economic conditions include, above all, a market economy with a dominant private property as a form of property rights, the economy open to the world, a certain degree of competitiveness, and even a certain level of social welfare. In the initial stages of the expansion of the EU, a number of authors (correctly) pointed out an assumption related to the EU enlargement policy. In fact, it is often the prevalent opinion that only the high and middle-income countries are eligible candidates for full membership. It is inconceivable that a poor country emerges as a serious candidate. Although at first glance this approach can be estimated as wrong, it is not for at least two reasons. The first relates to the conditions of accession and the other is tied directly to the level of economic development of the candidate. For the explanation of the first reason, it should be noted that during this period the terms that candidate countries must meet in order to become full members have not yet been precisely defined. In terms of ad hoc acceptance and conclusion of Europe Agreements (early nineties) and it was not possible to draw any concrete and more accurate conclusions. Unlike the Treaty of Accession, „Europe Treaties" or „Europe Agreements" went much further in terms of objectives and content covered. They depart from the wishes of the contracting parties to full membership in the EU, establish gradually assume the obligations of EU treaties by the associated countries (in the provisions on the free market, and mutual assistance) and provide technical and financial support of the EU reform process taking place in the accession countries. Their name, „Europe Agreements", was chosen for these reasons.

Enlargement policy always followed a policy of deepening economic integration. It seems that the fall of the Berlin Wall „came" earlier than the deepening „favored". European agreements served to successfully bridge the gap between the EU wishes to receive all Eastern European countries under its wing and its actual ability to do so, given the demanding phase transformation integration in the monetary, economic, and political union. Also, unlike in the countries admitted to full membership, in economically underdeveloped countries the possibility of joining the EU in principle was always open (in accordance with the Treaty establishing the EEC and the EU). In such cases, any deviation from accepted principles of equitable distribution of rights and obligations is possible, in order to meet the needs of protection of young industries of the developing countries.

According to most authors, the essence of the European Agreements is the same. It edited the economic, political and financial relations between the contracting parties. These relationships have been set up to European agreements from other association agreement which differ in purpose. The goal was obviously associated with membership in the EU countries. This practically means that the purpose of the agreement was to prepare the European associated countries to join the EU, and to allow them to gradually assume the obligations deriving from the establishment of the single market. However, it should again be emphasized that the European agreements do not automatically lead to membership. After the expiry of the transitional period of ten years, they extend no further time limit. Entering of the accession countries to the EU implies, therefore, a positive assessment of the Union that they managed to complete, in the transition period, the economic, legal and political preparations for full membership. In any case, this requires separate negotiations for whose commencement no deadline is scheduled.

The basic elements of the content of the European Agreement are:

- Trade liberalization without entering the customs union. However, the principle of free trade is not included in the so-called sensitive products, which normally account for about 50% of exports of associated countries,

- In the case of agricultural products of associated countries, the agreement made a somewhat easier access to the EU market,
- Associated countries are obliged to harmonize their legislation with the EU,
- There is an obligation of the EU Accession countries to provide technical and financial assistance to implement reforms,
- Freedom payments should be achieved within five years, and the free movement of capital in the double extended period of time,
- Industrial Cooperation aims to encourage the modernization and restructuring of the industry in the associated countries. Especially since these countries were required to create a climate conducive to private investment.

In contrast to the Agreement on cooperation that just require countries to make modifications to certain institutions (and in some cases not even that), the negotiations on the membership explicitly seek possession of „desirable traits" to a particular degree. This is done for two reasons. First, to ensure the compatibility of economic, political and legal systems of the countries acceding to those in the EU. Second, the acceding countries may not function properly after joining the EU. The single market, for example, requires a high degree of competitiveness of firms and sectors of the economy, and if it were not the case with the state of the new EU, there would be difficulties, both in the new associated country and the EU as a whole. Earlier EEC and now the EU have always insisted that, for them it was not just words on connecting economic, but also political character. Political terms should encompass functioning democracy, separation of powers, a multiparty political system, the rule of law, respect for human and minority rights and the like.

In addition to meeting some of the general conditions specified on both sides there must be a willingness to join the EU. It is important to note that the mentioned conditions for the admission and access to the EU are necessary, but not sufficient. In addition to meeting the formal requirements by potential candidates for membership or accession, the EU bodies, notably the Council and the Commission, estimate other content-items and their possible suitability for membership.

Due to the continuous expansion, what is practically gained is the impression that the EU can only go in that direction, but not to be reduced. If the EU is a community that promises its members and provides a profit (no matter what it may contain), then under certain conditions, it must have (predicted) the exit option as well. It is unlikely that the individual states could make use of an exit option for pure exhibitionism or because of some small differences, because they would be playing with their great interests. „Put out" would actually be an effective opportunity for those countries that believe that some common decisions violated their vital interests. It seems that the „exit option" was also a kind of safeguard clause for minorities by the majority - and to measure the ultimate protection.

The nature of the game in terms of „inputs" and „outputs" of the EU depends on the behavior of specific players. Obviously, the Austrian entry into the EU represented a strong argument in favor of a future receipt of several other countries, with which Austria has strong economic, political and historical ties (such as Slovenia, the Czech Republic and Slovakia). Also, the entry of the Scandinavian countries (Finland, Denmark, and Sweden especially) was a strong pressure for the EU enlargement to the Baltic countries (Latvia, Estonia and Lithuania). We should not forget that these are small countries that are geographically located on the border of Russia, as every economic and political arrangement gives strategic importance. On the other hand, the possible withdrawal of Germany from the EU would bring into question not only the initiated expansion of the

EU to the East, but also the survival of the EU as a whole. On the basis of the above examples, it can be concluded that, although the formal rules of the game (in the sense that it is equally applicable for each country), the presence or absence of certain states, or key players, could represent an important suggestion, both in terms of further development of the game, and in terms of external EU preferences.

In contrast to the seventies of the last century, when the EU in terms of degree of integration and the number of member states was much more modest, today (and tomorrow) a lot of difficult tasks and obstacles can be put in front of the numerous EU newcomers. The conditions and procedure for signing the Association Agreement, starting with the European agreement, to the special Stabilization and Association for Balkan countries, have so far been repeatedly changed. It is known that the last twelve new member states underwent an extremely expensive and almost „traumatic" period of adjustment, especially in the economic sphere, that their membership requirements were seriously considered. A major problem in the process of joining the EU is the circumstance that the fulfillment of each of the set of criteria has economic, social and political costs that the countries, at least at that moment, are not able to accept.

2. Help Econometrics in Measuring the Effects of Accession

The first theoretically and empirically based approach to evaluate the economic effects of integration, dating back to the 60s of the last century, is a sort of ex - post evaluation. The basis of these attempts has been the so-called partial equilibrium models. One of the more successful is the Balassa coefficient (1975) which included the effects of market growth (increase of productivity, reduction of operating costs, increase of competitiveness, economies of scale), and evaluated the effects on GDP growth and investment. Also, it is important to mention Smith and Venables' research (1988) regarding the assessment of the effects of the single market. The authors focused on the ten industries, given the scenario assessment of future effects of integration (the ex - ante evaluation). However, what most authors observed are severe restrictions on access to partial equilibrium. For these reasons, this method gave way to models of general equilibrium (Computable General Equilibrium - CGE) or macro models. Numerical values in CGE models are based on credible assumptions and macro-alone rely on econometrically-estimated equations. Now it was possible to examine the interdependence of the various sectors and assess the overall effects and redistributive effects on the economy as a whole. In 1992 Gasiorek, for example, developed the work of Smith and Venables (1988) and turned it into the general equilibrium model calculating the long-term effects of European integration. In later works, the author has expanded the circle of countries studied to include Spain and Portugal, in addition to the earlier „European Six", Great Britain, Greece, Ireland and Denmark.

With respect to the macroeconomic effects, well-known is the Cecchini report (1988) compiled for the European institutions, assessing the micro and macro effects of the formation of a single market in 1992.

2.1 Cecchini report

The focus of the Milan summit (in 1985) has been the creation of a single market that would contribute to the liberalization of world trade, offering new opportunities for trading partners of the Community. Increased competition on the Community market, which prevents the removal of internal barriers, would have an impact on companies from countries outside the Community. The decisions were made concrete in the form of the Single European Act (SEA), and the Program for the completion of the internal market in the EU became known as the Program in 1992. Adopting the White Paper on the Single Market planned the removal of physical, technical and fiscal barriers in order to achieve the EC single market. The SEA came into force in July, 1987 when the amendments to the Treaty of Rome were introduced, and were related to the reduction of the number of questions that were asked for unanimous decision-making. As a consequence, it was not possible to dispose certain proposals for years because one or two Member States objected to them.

The Program was initiated in 1992 because of the belief that it would lead to significant economic benefits for the countries and peoples of the Community. In an attempt to quantify these benefits, the Commission apointed Paolo Cecchini to chair the Committee of Experts. His report, published in 1988, was based on research and Industrials 11,000 econometric model provided a more realistic prediction of functioning of the single market. In fact, the introduction of the single market is expected to remove barriers to reduce production costs, and on that basis, lead to a fall in prices, which would only accelerate wider competition. Lowering the price to stimulate demand, and thus, indirectly, offer or production. Its increase is expected to result in further cost reductions due to increased scale of production. The Cecchini report predicted that profit from the removal of trade barriers would be 0.2-0.3% of the GDP of the Community, that the profit arising from the removal of barriers to production (firms entering foreign markets) would be 2.0-2.4% of GDP and that the effects of the increase resulting from economies of scale would amount to 2.1-3.7% of GDP, which meant that the total expected profit amounted to 4.3-6.4%.

Table 1 shows the expected results of operation of the single market on some of the main macroeconomic indicators in the EU. It is obvious that the largest gains were expected from the liberalization of financial services and the effects on the supply side. Most of these effects came as responses from the business sector to more competition, ranging from the use of more efficient techniques to economies of scale.

Table 1. Examined medium-term macroeconomic consequences of market integration in the EU

Nature of implications	Process					
	Removal tariff formalities	Public procurement procedure	The liberalization of financial services	The effects on the supply side	The average value	The range
Change in GDP (%)	0.4	0.5	1.5	2.1	4.5	3.2 – 5.7
Change in consumer prices	-1.0	-1.4	-1.4	-2.3	-6.1	-4.5 – -7.7
Change in employment (000)	200	350	400	850	1,800	1,300–2,300
The change in the budget balance (% of GDP)	0.2	0.3	1.1	0.6	2.2	1.5 – 3.0
The change in the balance of payments (% of GDP)	0.2	0.1	0.3	0.4	1.0	0.7 – 1.3

Cecchini, P. (1988), The European Challenge: 1992, Bruxelles: European Commission.

It is evident, too, that the macroeconomic effects of EU integration were pretty good, starting with the GDP growth of 4.5%, decrease in the price level of about 6%, and the creation of an additional 2 million new jobs. Of course, the market integration needs to be completed, requiring several years to make these numbers become a reality. The Cecchini report suggested that greater profit can be realized based on the balance in the budget and balance of payments of the member countries. Improving the balance of the budgets of the member states to only 0.7% of Community GDP, would increase GDP by about 7%, with about 5 million new jobs, without increasing inflation. It was considered that positive economic developments in the EU had a positive impact on global economic trends, as they acted in the direction of encouraging competition, lower inflation, stimulating demand and supply.

The analysis of the data in Table 1 provides answers to a limited number of questions. The report provides insight only into the benefits that followed the unification of markets without indulging in the cost analysis, on the other hand. For this reason, it was necessary to supplement the cost-benefit analysis of forecasted costs of the single market. However, follow-up costs were very difficult, both because of the comparability of the same, and the changes in the competence of the Community. The percentage of expenditure in relation to the total income of the EU has, of course, grown with the increasing competence of the Community/Union. In 1970 it amounted to 0.74% of the total income of the EU member states, in 1980 it was 0.80%, in 1990 it was 0.96%, and in 1995 it reached 24.1%. Out of the total EU expenditure, the expenditure on agriculture accounted for nearly half (49.3%), the Structural Funds 30.5%, the administration of the Union 4.8%, the external activities of the Union 6.3%, research 3.6%, internal politics 2.1%, Development Fund 2.9% and ECCS 0.5%. The EU expenditure normally represents about 2.5% of total government spending of the EU member states. Comparing the prices of public goods by the Community/Union offers and expenditures shows that the integration brings profit. It was also higher due to the fact that the expenditure on agriculture and structural adjustment virtually seized the cost of the Community/Union, as they returned the economies of the member states.

Reliance on the mechanism of economies of scale often leads to a merger in larger firms (mergers and acquisitions), and the high competitiveness must be maintained through imports and foreign direct investment. It is one of the reasons why seeking to enter the EU market is relatively easy. If it were not so, then the industry and other activities would rapidly internalize and exhaust the effects of economies of scale and develop the so-called X - Inefficiency. X - Inefficiency refers to a situation in which the total costs of the company are not reduced, although production is not a result of the maximum relative to the deployed resources. Thus, if a common market is not open, competition and efficiency would decline, and that would cause the anticipated benefits never to occur. It just says what the importance of a liberal approach to solving economic and political problems was.

Although the EEC and later the EU itself contained both liberal and regulatory elements in the development of its institutions, for decades, it seemed that the regulatory approaches have the advantage. Integration has mainly been followed in attempts to accomplish through legislation a greater degree of harmonization of conditions and the homogenization of the economy, which was wrong. Harmonization took place through harmonization of laws and other regulations, through imposing similar or the same standards, and even through attempts to standardize prices. It was a tragic mistake, and luckily made just in case of the standardization of agricultural products. Over time, the more liberal approach has taken precedence. The reasons for the change are likely to be numerous, and they are both internal and external. Researchers and decision-making bodies in the EU noted that it was not easy to reach a consensus, even on such seemingly trivial matters, such as what is ice cream, and what is yogurt. For these reasons, the EU institutions, increasingly began to rely on connections based on differences, i.e. the competitive regulation. This practically means that the EU body is increasingly limited in defining the rules of the game, and that is therefore left to the actors to decide on how to utilize this space. Generally speaking, today, liberal policies are not routing their liberal rivals, but they have taken the initiative and signatures. Persistence in this regard was not only important for the concept, but also for the success or failure of the entire EU. A clear indication that the EU continues to present a strong regulatory power was the strong pressure for homogenization of labor legislation.

There was a lot of debate about the Cecchini report later. Skeptics have pointed out that the removal of a large number of small barriers to trade, when the effects of the economy are already used, has a negligible impact on the volume of trade, so that the overall positive effects were smaller than the report predicted. Critics of other species have complained that the report did not take into account the dynamic effects (which is true, because it referred to one-time effects) and therefore underestimated the overall positive effects by three to four times. This assessment is excessive, as it were, and some are skeptical about the assessment of the overall effects of integration. At that time, non-tariff barriers amounted to about 17% of the total cost, it is suggested that there may be significant effects on the basis of economies of scale. In addition, a lot of service sectors such as finance, communications and information before the creation of the single market were very well protected from competitors. Hence, the fall in price will very likely have significant effects on the supply side. However, it is interesting that none of these critics disputed the fact that positive effects exist. After all, the debate about the effects of the EU has continued after its formation.

In October 1996, the Commission prepared a progress report, which showed that during the first three and a half years, GDP grew between 1.1% and 1.5%, the investment was 2.7% higher and that created 900,000 new jobs. Inflation is also significantly reduced, but there were a few„black holes", mainly because some member states did not adequately implement the Single Market Act (this was particularly the case with regard to public supply). The inability to agree on a common system of VAT collection meant that manufacturers still have to face the enormous paperwork, and that there was no progress in the harmonization of taxes certainly seemed restrictive on trade flows. In March 1997, Mario Monti, the former EU Commissioner for the Internal Market, demanded vigorous action to create a single market until the scheduled start of Monetary Union on 1 January 1999. Although the goals were not fully achieved, there was a significant progress in the field of taxation, intellectual property and prevention of piracy and counterfeiting, as well as in the field of financial services by adopting a general framework of legislative measures. At the summit in Lisbon in 2000 and Stockholm in 2001 when they were supposed to solve issues of financial barriers, create conditions for a more efficient labor market and, finally transform the EU into the most competitive region in the world, these problems were only partially remedied. Generally speaking, the single market, today, essentially, has a few gaps which a resolution is expected to mend in the near future.

The Cecchini Report with the mentioned disadvantages is a good starting point for the design model to measure the effects of EU accession. Arguments in favor of such an assertion lie in the gradual research model. The assessment of the effects of accession should start by reviewing business activities, analysis of trade barriers and sectoral studies. The second step would be carried out through the analysis of the model of supply and demand, with a focus on the collection of direct and indirect effects - multiplier. The third, but not least is the analysis of the effects of economies of scale, after which would follow the study's overall competitiveness of the economy. The basic criticism of the Cecchini report (a static assessment of the economic effects and too optimistic estimates of the positive effects of integration) is largely corrected by the emergence of new models for the evaluation of the integration process.

3. Models of Cost-Benefit Analyses after the Cecchini Report

In order to remedy the lack of the basic Cecchini report (a too static assessment of the economic effects of integration), in 1989, Baldwin transformed the Cecchini report into a dynamic model with short-term and long-term effects of integration. The analysis showed that the medium-and long-term gains from the integration were almost twice higher than in the Cecchini report, where the effects were evaluated between 2.5% and 6.5% growth in GDP assuming the Single European Act in 1992. Haaland and Norman (1992), on the other hand, presented a simultaneous study in which the core of the research were the economic effects of alternative scenarios, starting from regional enlargement of the European Union and EFTA countries without this increase. The conclusion was that there are positive effects for all participating countries of the enlargement process, and for the members of the EC and EFTA. In another paper, Haaland and Norman (1995) calculated the effects of the reallocation of resources (inflows and outflows of capital), with the conclusion that the EFTA countries would benefit from the goods and services sector, and encounter a loss in the capital movements sector.

Using a general equilibrium model, Keuschningg and Kohler did extensive research from 1994 to 1996 when they calculated the effects of the integration on the budget (for Austria, Sweden, Finland and Norway). The profit for the new member states in terms of GDP ranged from 0.5 to 1.4% of GDP. In their next survey (1999), the same authors investigated in more detail the effects of integration on Austria, starting with the theory of various scenarios of economic policy and the results of quantitative simulations. In addition to specifying the theoretical and empirical research in the field of cost-benefit analysis, they developed a simultaneous macro econometric model. It involved modeling certain parameters - aggregate supply and aggregate demand, labor market, the household sector, investment, government and foreign trade. The main conclusion was that EU accession would have a positive global impact on GDP growth (about 1%), welfare, foreign trade, competitiveness, available capital, employment and the fall in prices, but also some negative effects on certain sectors.

The first studies that are directly related to the assessment of the effects of EU enlargement in Central and Eastern Europe, are often associated with the names of Hamilton,Winters, Baldwin, Breuss and Schebeck. Using the so-called Gravity model, Hamilton and Winters (1992) were able to calculate in various works the long-term potential of trade between geographically close countries. The basic idea of the model was that the volume of foreign trade between the two countries is directly correlated to their size and distance. In practical terms, it is important to intensify cooperation with the countries geographically close to the EU countries (such as Austria, Germany, and Italy) and, to a large extent, increase the volume of foreign trade, even by four times. Brown (1997) using a kind of general equilibrium models (Michigan Model of World Production and Trade) calculated the effects of EU enlargement for three new member countries: Poland, the Czech Republic and Hungary. According to Brown, the gain for the new member states ranged from 3.8% to 7.3% of GDP, while for the EU itself the extended benefit from these countries was entirely symbolic - from 0.1% to 0.2%.

The co-author work by Francois, Portres and Baldwin (1997) developed the first detailed scenario of the effects of enlargement of the EU, both for Member States and candidate countries. Interestingly, they used a simultaneous macroeconomic general equilibrium model which did not take into account the cost of adapting the new members and the adoption of the *acquis*. A very reserved attitude towards these cost categories was, according to the authors, a consequence of the inability of their real quantification. Also, in the development of two parallel scenarios - conservative (pessimistic) and the less conservative (moderate) - were used both the assumptions to reduce the cost of foreign trade on the basis of integration (from 5% to 15%) and reduction of the risk premium (from 0% to 15%). The study included a total of ten candidate countries for full membership (with the exception of Malta, Cyprus and Turkey), and the following types of effects: the effects of trade liberalization, the effects of reducing the risk premium and budget effects. The gains for the new members were estimated to be 1.5% to 1.8% of GDP, while for the „old" member states about 0.2% of GDP.

In the framework of this model especially analyzed were the effects of the participation of five countries called Visegrad group (Poland, the Czech Republic, Slovakia, Hungary and Slovenia) in the EU funds after switching to full membership. On the basis of the current data, it was estimated that the average GDP growth in these countries would be 5%, the gain from the Cohesion Fund should be around 26 billion euro, from the Structural Funds around 12.8 billion euro, from CAP 5-30 billion euro. Total net gains for the new member states, with the deduction of about 23 bn euro under the mandatory annual allocation of 1% of GDP in Member States to the EU budget, according to these estimates would amount to about 50 billion euro! It is obvious that these data are overly optimistic, perhaps even unrealistic. For these reasons, the true picture of net profit based on the integration can be obtained only by adjusting the (exclusive) costs of adaptation and implementation of the *acquis*.

A series of empirical studies were carried out by Schebeck and Breuss (1999) who used a similar simultaneous macroeconomic model. The focus of their interest was to quantify the effects of EU enlargement for the period to 2010 primarily for the Austrian economy, but also for the candidates. The main conclusions of their study are:

- The costs of EU enlargement would move about 80 billion Euros, of which 12 billion for the CAP, 40 billion for structural policies (which are also used for the candidates), 6 billion for administrative costs and another 22 billion Euros for the other five candidate countries (groups of Helsinki). This amount is about 4% of GDP in the first five candidate countries and about 0.2% of the GDP of the European Union;
- GDP growth in Austria to 2010 was 1.3% higher than in the case of no extension after 2004. It was expected that 27,000 new jobs would open, price would fall by 1%, the reduction of the budget deficit to 0.4% and increase in current account surplus of 1.6% of GDP;

- Analyzed and direct trade effects, the impact on FDI, as well as the overall macroeconomic parameters (GDP, current account balance, budget, unemployment, consumption).

One of the most comprehensive studies of the economic effects of the EU enlargement up to June, 2001 is entitled The Economic Impact of Enlargement. It was presented to mark the ten-year development of the 10 countries in transition (the candidates for full membership at that time), with special emphasis on the macroeconomic effects, effects on labor migration and effects on agriculture.

The mentioned model in this research was used later by some researchers to assess the clustering effects of EU enlargement as well. The goal to be achieved was to define a possible way - a form of behavior of costs and benefits over a period of enlargement and immediately afterwards so that these effects follow a qualitative way. It was observed that when the effects of a candidate are almost always positive, they are accelerated in the aftermath of the full membership, and there is a slower rate in the period before accession and after reaching EU standards. In the second group of countries (EU), the benefits were greater than the cost of the pre-accession phase, and after reaching the EU standards (when costs are significantly declined), while expenses grew very shortly after the enlargement. So, for all candidates who see their future as full members of the EU, it is essential to have the knowledge of the effects that membership brings to a country. In order to facilitate their identification, a general classification was made to direct - that can be directly calculated and imply a precise quantitative determination, and indirect - that are primarily related to sectoral effects, the effects of resource allocation and redistributive effects of income and wealth. Therefore, the main direct effects would be:

1. The effect of trade creation, which involves changes in domestic demand due to the elimination of tariffs and non-tariff barriers and lowering import prices (Trade costs reduction) in the country that is approaching integration, which intensify trade between the member countries of integration;
2. The Trade diversion effect means slowing foreign trade flows to countries outside the European integration, or changing direction of foreign trade to countries within the integration at the expense of countries outside the European integration;
3. The effect on the balance of payments which is directly dependent on the previous two effects, because they mostly affect the improvement or deterioration of the balance of payments;
4. The budget effect (Government Revenue effect) implies a change in budget revenues due to the reduction or elimination of customs duties and other barriers, leading to lower revenue per unit value of imports, but to higher total revenues from growth in the volume of trade, expansion and revenue base. This effect is often also called the transfer because it includes all funds (Structural and Cohesion) and resources (based on CAP and pre-accession assistance) that go to the candidate countries from the EU budget. The aforementioned transfers significantly affect the growth of investment, employment, income, and finally, GDP of the new member states;
5. The effect of the growth of the welfare and living standards of consumers (Welfare effect) is achievable due to lower import prices and limit monopoly pricing strategy and market segmentation.

On the other hand, the indirect effects of integration are:

1. Sectoral effects, which include the impact on production, employment and trade volumes by sectors;
2. Effects on resource allocation and redistribution of income;
3. Effects of the terms of trade are determined by changing the purchasing power of the country's exports, which is approaching integration, due to changes in export and import prices of products;
4. Effects on improving the international competitive position of a country becoming a full member of the European Union are defined on the basis of more privileged to cheaper factors of production and, therefore, more competitive (with lower costs and prices) production;
5. Effects of commercial rents, which arise due to differences between higher domestic and lower import prices;
6. Negative effects caused by adjustment costs, on the basis of:
   - Shaping the institution in accordance with EU requirements,
   - Application of rules deriving from the acquis, the most important being those in the field of standardization, agriculture, transport, energy, environment,
   - Falling production and rising unemployment (in the first years of membership), and the creation of so-called negative effect due to the manufacturing of opening up to foreign competion, and
   - Adequate social programs for workers who lose their jobs.
7. Indirect political benefits in the form of:
   - Use geo-strategic advantages due to EU membership,
   - Support of stability, democracy and the rule of law,
   - The increase in international security, and
   - Growth of FDI and GDP due to the reduction of political risk (The Risk Premium Effect).

CONCLUSION

Enlargement is one of the most powerful tools of EU policy. The attractiveness of the EU has helped to transform the countries of Central and Eastern Europe into modern, well-functioning democracies. It has inspired far-reaching reforms in the candidate countries and potential candidates. All European citizens benefit from having neighbors that are stable democracies and prosperous market economies. Enlargement is a process that is carefully managed and that helps the transformation of the countries involved, extending peace, stability, prosperity, democracy, human rights and the rule of law across Europe. Euro optimists are happy to point out the above mentioned facts when they want to show the benefits of joining the EU. And benefits alone. The costs are somewhat hidden behind the view that the country's accession to the EU has virtually no alternative. For this reason, almost all the countries that joined the EU as a major foreign policy priority emphasized membership in the EU. Models to provide the most realistic picture of the benefits and costs of membership in the EU are reluctantly used for the purpose of economic analysis.

If we were to give a general assessment of the effects of integration and success of their quantification, it could be said that the possession of appropriate macroeconomic model and relatively usable statistics *conditio sine qua non* of successful analysis. The EU15 is, for example, all the time, preparation and application of expansion strongly dominated by the view that it is used in light of cost and is useful for the expansion of the EU15. Authors who have to prove it generally use very complex models, which may not be reliable (because the reality is unpredictable and complex). That is possibly a useful extension for EU15, but it does not mean that it is harmful for 10 or 13 new countries. The models are, according to some authors, often a mere „smoke screen" that allows you to prove what you want. The actual effects of the expansion can be anticipated, but their accurate quantification is hardly possible. It is not surprising, because in the process such complicated calculations are too complex to be accurately performed. In order to develop high quality studies of comparative analysis of the costs and benefits of accession, of great benefit may be the experience of the newcomer countries in terms of costs incurred and estimated earnings. Only in this way would it be possible to apply the appropriate mathematical and econometric technologies that successfully presented the real economic assessment of the effects of European integration.

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EFEKTI PROŠIRENJA EU U EMPIRIJSKIM MODELIMA

Literatura posvećena EU često ističe njenu hibridnu stranu koja se nalazi u procesu stalne transformacije. Proces je sveobuhvatan, u ekonomskom, političkom i vojno-bezbedonosnom domenu. Ovaj kompleksan zadatak nije vremenski ograničen jer je shvaćen kao proces, a ne jednokratni čin. Nije napuštena prvobitna ideja da se društvene promene evolutivno razvijaju i da traže vreme za prelazak u kvalitet. Iako je današnje okruženje EU veoma promenjeno u odnosu na ono iz kasnih pedesetih godina prošlog veka, osnovni razlozi da bi neka zemlja pristupila Uniji su ostali praktično isti. Svi oni u svojoj osnovi imaju iste težnje potencijalnih zemalja kandidata za članstvo: političke, ekonomske, kulturne, bezbedonosne i dr. Posedovanje odgovarajućeg makroekonomskog modela i relativno upotrebljivih statističkih podataka predstavlja conditio sine qua non uspešne analize odnosa koristi i troškova pristupanja EU.

Ključne reči: *proces pristupanja, EU, efekti pristupanja, Čekini izveštaj, empirijski modeli pristupanja.*