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Measurement of Costs and Benefits of Accession to the European Union for Selected Countries in Central and Eastern Europe

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Preface

This paper is the edited version of the final report of the Phare-ACE project P96-6033-R, **'Measurement of costs and benefits of accession to the European Union for selected CEECs'**.

The project started in May 1997 and was finished in July 1999. Members of the research team were **Vít Bárta** (then as free lance researcher, Czech Republic**), Elsbieta Kawecka-Wyrzykowska** (Foreign Trade Research Institute, Warsaw), **Boris Majcen** (Institute for Economic Research, Ljubljana), **Mario Strapec** (Centre for Economic Research and Graduate Education, Prague), **Jørgen Mortensen** (Centre for European Policy Studies, Brussels), **Tamás Szemlér** (Institute for World Economics, Budapest) and **Sándor Richter** (The Vienna Institute for International Economic Studies, Vienna), project co-ordinator.

The following research papers were elaborated in the framework of the project:

Boris Majcen: *Measurement of Costs and Benefits of Accession to the EU for selected CEECs: Country Report Slovenia*, WIIW Research Reports, No. 256, Vienna, May 1999

Tamás Szemlér: *Country Report: Hungary* (mimeo)

Sándor Meisel and Tamás Szemlér: *Key Issues for the Cost-Benefit Analysis of EU Accession in Hungary* (mimeo)

Margit Rácz: *On Possible Risks and Certain Other Problems Related to Hungary's Accession to the EMU* (mimeo)

Elsbieta Kawecka-Wyrzykowska: *Country Report: Poland* (mimeo)

Vít Bárta: *Country Report for the Czech Republic* (mimeo)

Vít Bárta: *Outline of Time Patterns of Costs and Benefits of EU Accession: Qualitative Assessment* (mimeo)

Sándor Richter: *Costs, Benefits and Temporary Exemptions* (mimeo)

Mario Strapec: *Models Used and To Be Used in Cost-Benefit Evaluations of the European Union's Eastern Enlargement* (mimeo)

Sándor Richter: *Summary of the Country Reports: Czech Republic, Hungary, Poland and Slovenia* (mimeo)

Jørgen Mortensen and Sándor Richter: *Measurement of Costs and Benefits of Accession to the European Union for Selected Countries in Central and Eastern Europe: Final Report*, WIIW Research Reports, No. 263, Vienna, January 2000

Due to the length of the papers written in the framework of the project, the original plan to publish them in the WIIW Research Reports series had to be modified. Apart from the *Country Report Slovenia*, published in May 1999, only the present paper – the edited version of the project's final report – is published in the series concerned. A selection of the other papers will soon be posted on the WIIW's internet website on the European Union's eastern enlargement (http://wiiwsv.wsr.ac.at/Countdown/).

S. Richter
Project co-ordinator

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Abstract

This paper is the final report of a research project whose aim was to analyse the methodology of calculating the costs and benefits for the Czech Republic, Hungary, Poland and Slovenia of the envisaged accession to the European Union. The research focused particularly on the impact of the emerging EMU and on the application of the CAP, Structural Funds and the customs union. The paper reviews, compares and evaluates the techniques/models used and the results arrived at in the individual countries in the assessment of the costs and benefits of EU accession. The main lesson from our research project is that no single methodology can be distinguished or developed as 'the' solution to the problem of measuring the costs and benefits of accession to the EU. The degree of uncertainty in all important aspects of the EU's eastern enlargement is high and the constraints in the application of model-based methodologies are such that robust assessments of accession-related costs and benefits are extremely difficult to produce. Nevertheless, due to the political and economic need for a proper perception of the implications of membership, research on costs and benefits must be implemented, even if under suboptimal conditions and with rather limited validity of results.

Keywords: economic integration, European Union, Central and Eastern Europe, eastern enlargement, costs/benefits analysis, Common Agricultural Policy (CAP), Structural Funds, regional policy, foreign trade, customs union, EMU, Europe Treaty, Czech Republic, Hungary, Poland, Slovenia,

JEL classification: C19, C68, E52, F02, F13, F15, F17, F36, F41, O11, O13, Q17, Q18, R12

Executive summary

The eastern enlargement of the European Union is one of the greatest challenges in the history of European integration. The governments of the applicant countries have all been eager to join as soon as possible. Although benefits are expected to be huge once these countries enjoy completely free access to the European market and become beneficiaries of the European redistribution schemes, the costs associated with accession are also likely to be significant. Negligence of potential costs and loss of instruments which could be employed to alleviate these may prove very expensive. For this reason our project had the target to analyse the research done in the field of costs and benefits in the four applicant countries; to evaluate the results achieved in those projects, identifying the weak and strong points, investigating the tools developed elsewhere and recommending methodology for further research.

The first stage of the project involved the collection and evaluation of past and current research methodologies and results on the subject. For this purpose four country-specific research papers were written by the project team members in the Czech Republic, Hungary, Poland and Slovenia, following a uniform structure and methodology. The second stage consisted of, first, the comparison and evaluation of the findings of the four country reports, second, a contribution comparing the models and methodological problems mentioned in the country reports, evaluating them in comparison with solutions applied in the international literature, and third, a synthesis paper placing the research results into a theoretical framework and, relying on the summarized results of the project, proposing methodological recommendations for future research.

One of the most important tasks at the beginning of the work was to pinpoint a few critical areas so as to focus our research efforts. Four special areas were selected:

(A) Macro-economic approach

– *Impact of the emerging EMU on the four acceding countries concerned*

(B) Sectoral approach

– *Agriculture*

– *Transfers, regional policy issues*

– *Free movement of goods, customs union*

*The **cross-country comparison** of the projects reviewed in the individual country reports shows that research teams and individual authors investigating the costs and benefits of accession to the EU have tried to answer practically the same questions in each of the four*

countries concerned. Traditions and conceptual differences resulted, however, in varying methodological approaches. In Slovenia there was a strong inclination to apply a quantitative approach to all related problems with reference to the theoretical foundation of the analysis concerning the costs and benefits of accession. Newly initiated projects were often based on the methodology and results of earlier projects, with innovative solutions to problems and integrating newly available data and information either on the national economy or on the conditions of accession. In Poland the quantitative approach to the topic has not been so widespread as in the case of Slovenia. Several papers on the costs and benefits of Poland's accession to the EU applied a qualitative–descriptive approach rather than modelling. In Hungary modelling was rather exceptional; apart from agriculture, the methodology used did not go beyond simple arithmetic. In the Czech Republic the available research results were too meagre to come to general conclusions about the country-specific methodological approach.

*The **techniques/models** to evaluate the costs and benefits of accession to the EU in the investigated research projects have typically been as follows:*

- *CGE (Computable General Equilibrium) model, an alternative is the partial equilibrium analysis*
- *Macro models – mostly static analysis based on previous experiences (such as the Iberian countries' accession)*
- *Sectoral approach (mostly static)*
- *Gravity model (focused on the trade effect)*
- *Optimal Currency Area framework*

*The main issues determining the **procedure of modelling** the impact of accession to the EU were as follows:*

- *Changes, e.g. in real income, are observable in the long run only. What the 'long run' really means for a specific model remained an open question.*
- *Factor movements, though of eminent importance, are rarely incorporated in model simulations due to serious modelling difficulties.*
- *The problem how to distinguish between the transition vs. accession effects remained unsolved.*
- *Proper treating of the time horizon was a major methodological problem for those projects where models were used. Most attempts at measurement of costs and benefits were confined to capturing the static effects. To find a procedure how to assess the period of accepted derogation with all potential implicit and explicit effects was mostly beyond the scope of researchers' interest.*

Concerning the results of the projects analysed in the country reports, they can be summarized as follows.

***Accession to the EMU** is a remote target of the four EU applicant countries concerned. Based on the theory of the optimal currency area, computation results suggest that the four countries, but especially Slovenia, may soon get in the position to benefit from being a member of the EMU. However, a wide consensus was found in all countries concerned that the still uncompleted transition process necessitates further maintenance of monetary sovereignty, especial in the field of exchange rate policy. Only continuous monitoring of the macro stability and the main factors determining it will enable the governments to find the optimal timing when imported stability via EMU membership is more beneficial than the preserved manoeuvring room in the main areas of economic policy.*

*In the field of **agriculture** the research projects investigated in the country reports – despite the application of sophisticated methodologies (partial equilibrium models, computable general equilibrium models and optimization models) – failed to deliver final answers to the most important questions, though yielding valuable results in many details. In most of the projects investigated, the final balance of measurable costs and benefits tended to zero, in the sense that, depending on the specific variables of the scenario applied, the balance is either negative or positive. Based solely on the research results of the projects reviewed, no well-founded decision on the economic usefulness of accession can be made. Uncertainty prevails at the level of individual products, too. No clear guidance for farmers can be provided as concerns recommended specialization so as to start accommodating in time. This uncertainty should have a clear message for the negotiators of both the applicant countries and the EU. A conscious search for modalities facilitating a manageable adjustment process and an innovative spirit for country-specific support programmes seem to be a precondition for successful EU accession of the countries concerned in the field of agriculture.*

*Costs/benefits analyses on **transfers from the EU** were first of all focused on calculating gross and net flows, but a considerable amount of work was done on assessing the absorptive capacity of the countries concerned, keeping in mind that available net transfers are still not equal to net gains. Generally non-quantifiable aspects such as the absorptive capacity of the future new members – the ability to fulfil the co-financing requirement through reforms in public finance, setting up the required institutional background, successful operation of the new administrative regional bodies, etc. – will have a decisive impact on the final balance of transfers concerning costs and benefits. Problems of absorption may keep net gains low or, in the worst case, may keep the latter from emerging at all. But even an excellent preparedness in terms of absorptive capacity would not result in substantial net gains in the first years of membership, as the 'phasing-in' proposed in the Agenda 2000 sets the upper limit of gross transfers fairly low in this initial*

period. It is an unfortunate coincidence that exactly in the first years of membership net gains through transfers will be relatively lower than later, as the most costly part of the accommodation due to the take-over of the acquis communautaire will have to take place also in those years.

The calculation of costs and benefits has been especially difficult in the field of ***free movement of goods and the customs union*** *due to the interwoven impacts of the liberalization of foreign trade in the wake of the transition and the completion of free trade with the EU (for industrial products). Research results warn of a possible increase in trade deficits in the early years of membership and point to the importance of an appropriate macro-economic environment to avoid unsustainable external disequilibria.*

In view of the high degree of uncertainty in all important aspects of the EU's eastern enlargement and the constraints experienced in the application of model-based methodologies to arrive at a half-way robust assessment of accession-related costs and benefits, the main lesson from our research project is that ***no single methodology*** *can be distinguished or developed as 'the' solution to the problem of measuring the costs and benefits of accession to the EU. Neither can one single optimal solution be recommended to the governments or the research community in the selected four or any other EU applicant eastern countries. Nevertheless, due to the need for a proper perception of costs and benefits, and for the sake of an appropriate policy response, research on costs and benefits must be implemented, even if under suboptimal conditions and with rather limited validity of results. The costs arising in case of no research in this field and the consequent complete ignorance of the possible impacts would certainly be greater than the potential losses caused by a policy relying on results of costs/benefits analyses using an* ***imperfect methodology****.*

Jørgen Mortensen and *Sándor Richter*

Measurement of Costs and Benefits of Accession to the European Union for Selected Countries in Central and Eastern Europe

Introduction

After three-quarters of a century marked by wars and division, starting with the assassination of Archduke Francis Ferdinand in Sarajevo and ending with the fall of the Berlin Wall, the 21st Century has every appearance of emerging as a period of renaissance. It seems to be emerging as a period of restoration: restoring former links, rediscovering long-lost patterns of trade and payments and presaging a first wave of eastern enlargement of the European Union at the outset of a new century. In a long-term historical perspective, opening up broad-based economic relations with the countries of Central and Eastern Europe (CEECs) and the ex-Soviet Union (ex-USSR) after 1989 involves re-establishing former economic and political ties. However, throughout most of the 20th century these economies have grown apart. In the framework of a rigid centralized command structure, the CEECs and ex-USSR developed a high degree of autonomy and a pronounced industrial specialization while the EU member states, over a series of enlargements, moved towards a fully-fledged internal market and, more recently, towards monetary union and a single currency.

For all countries concerned, the eastern enlargement of the Union will thus involve: a comprehensive reshuffling of patterns of trade and payments; relocation of certain industrial activities; the decommissioning of obsolete industrial capacity (notably in some of the over-industrialized CEECs); and a comprehensive exchange of technology, knowledge and know-how.

Measuring the costs and benefits of this process, therefore, implies studying many different aspects of economic development and industrial restructuring. Furthermore, the process of integration (association and ultimately accession) between the EU and the CEECs does not constitute a 'controlled experiment'. In fact, as far as the CEECs are concerned, it is superimposed upon the general process of transition from a command economy and, for the Union member states, upon the creation of the single market and the movement towards European Monetary Union (EMU). Nevertheless, despite the complexity of the venture, measuring the effects of economic integration between the EU and the CEECs as well as full membership of the latter is clearly a necessary feature of the ongoing political and economic process. This process involves mutually screening systems and policies, seeking out sensitive elements in industrial structure, exploring the implications that applying and implementing the acquis communautaire bear for the CEECs and, last but not least, assessing the need for transitory arrangements.

On the part of the Union, the Commission has undertaken a comprehensive assessment of the candidate countries' capacity to apply, implement and enforce the acquis communautaire. Furthermore, many individual EU member states and a large number of public or academic institutions have undertaken studies of these effects and a vigorous and profound debate persists. As will be shown below, the effects of enlargement on the CEECs have also been the subject of a number of studies and reports in the CEECs themselves.

At the present juncture, were it to be undertaken, a comprehensive review of the literature on European integration, with particular emphasis on quantitative research methodologies, would rouse considerable interest. This PHARE/ACE project, however, has had the more limited objective of reviewing and assessing the methodology applied in a number of studies on the costs and benefits of enlargement conducted in four candidate countries (the Czech Republic, Hungary, Poland and Slovenia).

The present final report on the findings of this project is structured in five main chapters. Chapter I recalls the general theoretical framework guiding research on economic integration, starting from the theory of trade and going on to examine the concepts behind the evaluation of the liberalization of movements of goods, services, capital, labour, knowledge and technology. The additional implications of EU integration are then outlined in Chapter II. Chapter III examines the application of the general conceptual framework presented in Chapters I and II to the specific question of eastern enlargement of the EU. The aim of this chapter is mainly to establish a 'short list' of issues that, from a theoretical standpoint, can be considered pertinent to the special case of economic integration between the EU and those candidate countries with low per capita income levels and, in some cases at least, relatively backward and heavily biased industrial structures that are currently undergoing a rapid adjustment process sparked off by the opening up of trade with the EU. Chapter IV goes on to present the main objectives of this project and those of the studies examined, together with an analysis of the methodologies applied and the results obtained in those studies and reports. Chapter IV thus constitutes the main body of this report. The conclusions and recommendations of the group involved in this PHARE/ACE project are presented in Chapter V.

I. Evaluation of the effects of economic integration in general

I.1 The general effects of opening up trade in goods

It was Ricardo who first demonstrated in his 'Principles of Political Economy' that foreign trade could be beneficial to all countries concerned on the simple premise that overall (average) productivity in each country could be augmented as a result of specializing in the production of goods for which the country displayed the highest relative competitive

advantage. Heckscher and Ohlin developed this model further into a general trade theory.[1] Applied to foreign trade theory, Pareto's model of optimality also provides us with a qualitative approach to analysing the consequences of permitting trade and factor substitution between hitherto closed economies.

However, as stressed by Balassa[2], Jacob Viner made the first important contribution to the modern economic integration theory in 1950, with his formal investigation of the impact of a customs union on trade flows. Viner, in particular, introduced the distinction between 'trade creation' and 'trade diversion', thereby paving the way towards an appreciably more sophisticated approach to the analysis of costs and benefits of trade than had been proposed by the earlier authors. According to Viner, the more competitive (the less complementary) the production structure of the countries entering into a customs union, the greater the chance of a customs union increasing welfare. However, the welfare effects of a customs union will also depend upon transportation costs, in the sense that the lower the transportation costs between the member countries, the greater the gains from their economic integration.

The relatively optimistic view by Viner has since been tempered by Johnson (1965)[3] who argued that the unilateral elimination of tariffs could secure larger welfare gains than the establishment of a common tariff vis-à-vis the rest of the world. Furthermore, in a multi-country analysis, the gains and losses may not be evenly distributed throughout the customs union, thus raising the additional problem of elaborating mechanisms for the reallocation of income so as to ensure that all participating countries obtain at least a share in the overall increase in welfare.[4]

This basic, comparatively static theory of product market integration may then be refined by waiving some of the underlying restrictive assumptions (perfect competition, constant returns to scale, constant factor endowment, etc.)

One important argument in favour of economic integration, increasing economic efficiency, clearly assumes that at the outset a number of firms are not operating under fully competitive conditions. Opening up trade may, therefore, lead to efficiency gains by eliminating technically inefficient firms or lines of production.

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1 Ohlin, B. (1933), *Interregional and international trade,* Cambridge, Harvard University Press, 1966.

2 See in particular the article on economic integration by Balassa in the *Palgrave Dictionary of Economics* (1997) on which the following comments are largely based.

3 H.G. Johnson (1965): *An economic theory of protectionism, tariff bargaining and the formation of customs union*, Journal of Political Economy 73.

4 This aspect of economic integration within the European Union was the main subject of studies undertaken by Commission experts in the context of the 1992 Programme, see *The impact of the internal market by industrial sector: the challenge for the Member States* , European Economy, Special Issue, 1989

A classical assumption in production function theory is that no efficiency gains are to be secured by increasing the scale of production (no economies of scale). However, as stressed in particular in the debate on the 1992 Programme (see footnote 5) and also implied in the micro-economic theory of the firm, opening up markets may, in fact, entail considerable returns to scale. In Europe many industrial branches boast a far larger number of producers than in similar branches in the United States, thus suggesting that market segmentation due to the technical barriers may have prevented many European firms from attaining an efficient scale of production. Overcoming technical barriers may, therefore, allow the most efficient firms to obtain economies of scale by eliminating or acquiring other firms in the same branch. Given the likely reduction in costs and prices associated with such a development, consumers would then be the ultimate beneficiaries of those efficiency gains on account of the resultant rise in real incomes. [5]

The distribution of welfare gains and losses in a customs union may also be affected by changes in the terms of trade. The latter may, in fact, offset the effects of trade diversion by improving real incomes and thus provide arguments in favour of establishing a customs union, even in the absence of non-economic objectives and beneficial externalities. Improvements in the terms of trade resulting from a customs union could also work in favour of this arrangement as compared with unilateral tariff reductions which would be more likely to lead to a deterioration in the terms of trade. [6]

All other things being equal, the larger the customs union, the greater its gains and hence the loss to non-member countries – by virtue of changes in the terms of trade. In fact, the larger the customs union, the higher the elasticity of its reciprocal demand for foreign products and the lower the elasticity of reciprocal demand on the part of non-member states for the union's products.

In the quantitative analysis of foreign trade, recent research has drawn on the gravity model. As applied to trade, this model aims at correlating the level, direction and structure of foreign trade with such variables as, notably, per capita income and distance between main trading centres. The main purpose of this discipline is not primarily to analyse cost, benefits and welfare effects, but to study (and predict) the changes in the geographical and commodity structures of trade once frontiers are opened. Another thrust of analysis has aimed at analysing and predicting the development and structure of the CEECs' foreign

[5] For a comprehensive, documented and pedagogical overview of the different aspects of trade integration, see Pelkmans, J. (1997) *European Integration: Methods and Economic Analysis*, Netherlands Open University, Longman.

[6] Gains in the terms of trade for the Union would, of course, be compensated by the losses in the terms of trade for the rest of the world.

trade by analogy with the development and commodity structure of trade between the EU member states.[7]

Today, however, a growing proportion of international transactions takes on a form that is not easy to fit into the conventional theoretical framework for analysing foreign trade: that of intangible goods. Intangible goods have many things in common with material goods. They are entities over which ownership can be established, for example, through patents or intellectual property rights. They are entities of positive value to their owners. They are exchangeable and tradable. They can be stocked. Examples of immaterial goods are: the text of a new book produced by its author, a new musical composition, a new film produced by a film studio or a new recording of a musical performance, the formula for a new chemical or pharmaceutical product, drawings for a new building, vehicle, aircraft or other equipment, the blueprint for a new method of production, a new design for a fabric or clothes or a new computer programme.[8]

The contribution of intangible goods and intellectual capital to economic growth and international transactions is still subject to a number of misconceptions and misunderstandings. Its level and evolution is only poorly and incompletely revealed in existing statistics. However, a number of studies show that in the most advanced economies, intellectual capital (including an estimated value of human capital) now amounts to more than half of total fixed and immaterial capital. The freedom of movement of intangible goods has also moved into the purview of the World Trade Organization during the most recent round of trade negotiations.

Our conceptual framework for analysing the production and consumption of intangibles is, however, underdeveloped. As already indicated, our knowledge of the economic weight of intangible goods, as indicated, is disparate and incomplete. In balance of payments statistics, payments for many (most?) intangible goods are classified as factor income, although the sale of such a good frequently involves the transfer of support material such as a blueprint, a design, a software item or a film. Analysing the impact of liberalizing the movement of these goods is thus a particularly difficult task.

However, since intangible goods have many aspects in common with material goods, many of the classical propositions in foreign trade theory would also seem to apply to intangibles. In fact, in certain (notably advanced) economies, it appears that the production of intangible goods may be highly efficient, while other countries may be characterized by

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[7] See, for example, Baldwin, R. E. (1994) *PanEuropean Trade Arrangements Beyond the Year 2000*, Graduate Institute of International Studies, Geneva, January 1994 and Paul Brenton, P. and Di Mauro, F. (1998) *Trade Between CEECs and the EU,* The World Economy, Vol 21, No. 3, May 1998 (Blackwell Publishers, Oxford).

[8] For a discussion of the concept of intangible goods see, in particular, Hill, T.P. (1997)*Tangibles, Intangibles and Services*, paper contributed to the CSLS Conference on Service Sector Productivity and the Productivity Paradox, Ottawa, April 1997 (mimeo).

lower labour costs and relatively high productivity in the production of material goods. Opening up trade between these groups of countries might thus well enable the former group of countries to export an increasing volume of intangible goods and import material products in exchange.

I.2 Free provision of services

In theoretical analysis, the free movement of intangible goods is frequently considered under the same heading as the free provision of services. However, given its very nature, a service involves a relationship between a producer and a consumer. In contrast to a good, a service is not something that has an existence of its own. In particular, it is not an entity which can exist independently of its producer or consumer. Therefore, it cannot be stocked nor can it be subject to ownership and property rights.

In contrast to goods, it is thus not possible to 'trade' services independently of their production and consumption. It is not possible, for example, to produce services in one country and then export them to another country. Services can be, and are in fact, exported but only by resident producers providing the service directly to non-resident consumers. This imposes an enormous constraint on the level and nature of the international provision of services and, in turn, on the impact of liberalizing the provision of services in the process of economic integration.[9]

Nevertheless, a number of services, viz. financial services, many transport services and certain medical services, are such that they can be provided to non-residents. Liberalizing the provision of services within a customs union is likely to exert a significant impact on the economies involved.

Estimates of the effects of the EC's 1992 programme[10] prepared for the Commission by a group of experts showed in fact that the productivity and welfare gains resulting from the elimination of barriers to the free provision of services constituted an appreciable proportion of the overall gains from this programme. This was due to the fact that the provision of (notably) financial and transport services during the first decades of the EC's existence was in general confined within national borders and/or restricted to national service providers. The subsequent elimination of those barriers to the provision of services was considered to lead to restructuring of those services that was more pronounced than in the case of restructuring manufacturing as a whole which was already operating within the framework of an albeit incomplete customs union.

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[9] For a more thorough discussion, see Hill (1997).

[10] Covering the period 1986-1992, the programme involved the elimination of a number of residual non-tariff (technical) barriers to the movements of goods, labour and capital and the provision of services within the European Community.

The emergence of Internet, electronic shopping, secure payments via chip card and instantaneous global transactions is, however, also changing the patterns of and conditions for the cross-border provision of many financial services. With the advent of electronic banking, an increasing number of clients no longer need to effect their transactions over the bank counter. An increasing number of stock exchange transactions are implemented electronically outside the customary circuits. An ever increasing amount of documentation and information is obtained by accessing databases. Insurance contracts can be obtained via Internet. The list goes on.

The 'deconstruction' of the provision of, notably, financial services across borders is, however, hampered by the perceived need for prudent surveillance and control, demanding capital adequacy of financial institutions and market operators alike and other regulatory functions. At present these functions are largely fulfilled by national public or quasi-public institutions operating within national borders or, in rare cases, within broader trading zones. Within the European Union, the free provision of services is ensured by the combined principle of home country control and mutual recognition of norms and standards. The smooth functioning of such a system is, however, contingent upon a high degree of mutual trust between the participating states; it can hardly be expected to become operational in the broader global market.

I.3 Migration of labour

As underlined in a review on international migration of labour in The New Palgrave[11] the literature on international migration is notable for its absence of theoretical models designed to analyse the causes and consequences of migration across borders. The theoretical work undertaken to date focuses mainly on migration in aggregate terms, frequently based on the neo-classical assumptions of full employment, flexible wages and full factor mobility. According to this approach, as long as real returns on labour are unequal, international migrations will persist in the absence of physical and legal constraints being imposed by government. Since these conditions are rarely or never fulfilled, an alternative thrust of research has focused more on modelling the decision-making process relating to both internal and international migration at the level of the individual person.

In this approach, it is assumed that the decision to migrate depends upon the expected relative income differential between the place of origin and the foreign destination. The

[11] *International Migration*, The New Palgrave, A Dictionary of Economics, Macmillan 1987. The article was written by Todaro, M.P. and Marusko, L.

expected income differential, in turn, depends upon actual income differentials, the cost of migration and the probability of obtaining employment at the destination.[12]

Viewed from a long-term perspective, migration patterns have exerted a profound influence on economic development. Ever since the 16th century and more notably during a large part of the 19th century, migration altered the course of history. In the 20th century it brought about large changes in the patterns of settlement and the demographic structure of many countries in Western Europe.

Conceptually speaking, labour migration may be considered an alternative to trade, in the sense that the movement of labour towards countries and/or regions with a high relative wage rate may be expected to reduce the incentive to trade. This was probably the main motive for the migration of manual labour from Southern Italy to the main industrial centres in Northern Italy and to Northern Europe during the late 19th and large parts of the 20th century.

However, for the greater part of the 20th century with labour markets and living conditions becoming increasingly transparent, the incentive to move would appear to have increased considerably among non-manual labour. To an increasing extent, migration is thus to be observed among white-collar workers or at the level of managers, highly skilled engineers and/or academics.

Since the immediate effects of migration are mainly private in nature, calculating the general economic (social) costs and benefits of migration is a more complex task than the calculating the costs and benefits of trade in goods. Migration from agriculture to the urban industries over the past two centuries was a main factor in increasing productivity in the developed economies. Migration from regions with a high level of structural employment to regions with a high demand for manpower is likely to: (a) increase overall welfare by increasing the overall level of employment; (b) dampen inflation; and (c) enhance productivity. On the other hand, the migration of highly skilled manpower to the main urban centres (brain drain) may well aggravate regional income differentials and lead to a rise in structural unemployment in rural areas.

While it has been assumed that opening up trade between nations in general enhances welfare (albeit with some caveats), the effects of opening up migration (whether legal or illegal) may, therefore, not necessarily be so positive for weaker regions. Assessment of the costs and benefits of migration will, therefore, normally require very detailed analysis of such factors as the conditions prevailing at the outset, the administrative and cultural obstacles to the movement of labour and the nature of potential flows.

[12] The economic analysis of migration clearly cannot and should not include migration attributable to political factors or civil war.

I.4 Free movement of capital

Free movement of goods and persons and free provision of services presuppose freedom of cross-frontier payments for such transactions. These payments are thus normally recorded as counterparts to the trade flows in the current account. Furthermore, in many cases, imports and exports are financed through trade credits and other capital transactions directly linked to trade. Although the transactions involve enormous amounts of capital, they are generally of a subsidiary nature and are hence not the subject of capital market research.

In an 'ideal' world, the effects of liberalizing capital movements between two countries will be determined by such indicators as the macro-economic conditions prevailing in the economies concerned at the outset, the substitutability of assets, the degree of segmentation of capital markets and the resulting mobility of capital.

Assume two countries (A and B) where the initial rate of interest is considerably higher in A than in B. If capital movements become possible between the two economies, a resident in country A may find it an attractive proposition to shift a part of his/her portfolio and secure assets in country B. As a consequence, a new equilibrium will emerge with the real rate of interest in country A being somewhat higher and that in country B somewhat lower than at the outset. The current external account of country A will thus show a surplus and the current external account of country B a deficit corresponding to the annual increase in country B bonds held by country A. This reallocation of savings could offer welfare benefits to both economies if, for example, as a result of a rapid expansion of the labour force or higher productivity growth, the potential growth rate in country B is higher than that in country A. Opening up capital movements could thus enable country B to finance the rate of investment required to ensure the rate of expansion of capital stock warranted.

Integration, however, also frequently modifies the conditions for foreign direct investment to a significant degree. Firms may aim at setting up distribution networks and realigning local production towards foreign markets or to the home market of the parent company as re-exports. Furthermore, firms in third countries may seek to acquire access to the larger market or offset the trade diversion effects due to integration within a customs union and other reasons. The experience gained from the accession of Spain and Portugal is a notable example of how EU membership may actually entail a significant increase in foreign direct investment and thus provide a significant boost to income and activity for a certain period, at least, following a country's accession to a customs union.

Even in the absence of formal restrictions on capital movements, cross-frontier substitutability of assets may, however, be hampered in various ways. Management of financial assets is not cost-free; foreign direct investment or bond holdings may present higher risks than domestic holdings; transactions costs may be higher. Moreover, in the

real world, portfolio structures can be changed only after a certain time-period has elapsed and the changes in capital intensity implied in the conceptual model will take a long time to materialize. Even after eliminating trade barriers and liberalizing capital movements, differences in terms of returns on assets may, therefore, persist for long time and their reduction will be a gradual process.

II. Evaluation of additional economic effects of EC integration

Since the inception of the European Community (EC) numerous studies have used a broad variety of methods to address different aspects of EC integration. In the 1960s and 1970s these studies mainly examined the effects stemming from the customs union: in particular, the issues of trade creation and trade diversion. In the late 1980s the focus of research shifted to the broader area of internal market completion (the 1992 Programme) covering not only trade in goods but also the free provision of services, integration of capital markets and free movement of labour. In the 1990s the focus has been mainly on the effects of fully-fledged economic and monetary union (EMU), the policy implications that the Maastricht criteria bear for the level of budget deficits and public debt, the associated stability pact and the introduction of the euro.[13]

In addition to applying to the EC integration the general scheme of integration analysis outlined above, the analysis of EC integration also needs to address a number of integration effects specific to EU membership. These encompass, *inter alia* the effects of harmonizing standards and eliminating technical barriers within the internal market, the effects of the Common Agricultural Policy (CAP) and other common policies, the impact of the EU budget, notably the structural funds, as well as the redistributive effects of the collection of own resources.[14]

II.1 General considerations

The elimination of barriers to the movement of goods, services, labour and capital has been a key objective of the Community since its inception.[15] The objective was re-affirmed with the adoption of the Single Market Programme and the Single Act – and yet again in Maastricht. However, the elimination of barriers has been accompanied throughout the

[13] For a good overview of the literature on EC integration available up to 1992 see Ohly C. (1993) *What Have We Learned About the Economic Effects of EC Integration?*, Economic Papers Number 103, September 1993, European Commission, DG II. This study includes a comprehensive bibliography on literature on the economic effects of economic integration.

[14] Own resources are the revenue items which, due to their nature, accrue directly to the EU's budget. This is notably the case for the tariffs on imports from third countries, certain duties on steel and coal products and taxes on the income of EU staff members.

[15] The following paragraphs contain extensive extracts from the introduction to Mortensen J. (ed.) (1994) *Improving Economic and Social Cohesion in the European Community*, Macmillan.

route towards European Union by efforts to strengthen solidarity between member states. These efforts are based on the assumption that in addition to policies to enhance efficiency and guarantee monetary and financial stability, a balanced Community policy framework must include policies aimed at improving equity through fiscal transfers from the richer to the poorer regions and member states. This was stressed in the MacDougall Report in the mid-1970s, the Padoa-Schioppa Report in 1987 and the Delors Report on EMU in 1989.

None the less, from a theoretical point of view the very question of how economic integration resulting from the elimination of barriers may influence economic and social disparities within a trading area like the Community is unresolved. As emphasized above, the literature on the economics of integration is abundant, yet somewhat inconclusive as to the size and, above all, the distribution of welfare gains from trade.

II.2 The elimination of barriers within the internal market

Academic studies in general have concluded that trade liberalization will bear positive effects for both parties. As indicated above, these effects are assumed, in particular, to come about as a result of the scope for productivity gains through specialization and economies of scale. European Commission studies have also concluded that the elimination of barriers and monetary unification inside the EC would lead to overall welfare gains for the member states as a whole. In the (Cecchini) report on the 'costs of non-Europe' it was suggested that removal of the remaining non-tariff barriers to trade in goods and services within the Community could lead to significant efficiency gains and price reductions. Similarly according to the 'one market, one money' studies, the move to full economic and monetary union, through the elimination of currency risks and exchange costs, would yield efficiency gains and cost reductions for consumers and non-financial firms.

In a comprehensive study of the impact of the internal market by industrial sector ('Social Europe"), the Commission has, however, also shown that in all likelihood the gains and losses from the Single Market programme will be unevenly distributed throughout the Community. For most industrialized countries, economic integration is already well advanced and production methods are similar. The same types of goods, albeit different brands and qualities, are traded between them. The nature and quality of infrastructure, training levels and access to funding are relatively comparable.

Hence, even in some weak sectors in these member states, there are firms, which can export successfully and gain access to larger markets. The more industrialized member states are thus well equipped to benefit from larger markets by expanding their output of goods and services which are already rapidly expanding at home.

The less industrialized member states have secured strong positions in labour-intensive sectors and a higher degree of specialization in certain products. They are less involved in intra-sectoral trade and their products are often concentrated in categories where demand is only growing slowly, if at all. For these countries, eliminating technical barriers may permit them to increase their exports of those products in which they are already well established. In order to realize these benefits, however, they must retain their competitiveness and avoid relative increases in their labour costs. On the other hand, whether the process of integration will also bring about an expansion of their production of R&D-intensive goods and services will depend on the overall framework and the location strategy that firms adopt with respect their productive activities. Here the less industrialized countries are in direct competition with the "centre", where the supply of qualified labour and white-collar manpower is both abundant and sufficiently balanced to cover all required categories.

II.3 The Common Agricultural Policy (CAP)

In theory, trade in agricultural goods should have been covered by the general rules prevailing within the customs union. However, from the very inception of the EC it was clear that, in order to obtain an orderly replacement of the existing national border protection, domestic intervention and income support schemes, the establishment of a common market for agricultural goods would need to be accompanied by the establishment of a common agricultural policy.

At the outset, the common agricultural policy relied mainly on a system of guaranteed producer prices coupled with import levies to shield the EU agricultural producers from competition from third countries. This policy regularly resulted in production outpacing demand and surpluses ('mountains' or 'lakes') of certain products accrued. In an endeavour to eliminate surplus production the Union has gradually introduced certain reforms: notably the imposition of quotas for certain products, the reduction of guaranteed prices to world market levels and, more recently, the introduction of deficiency payments to producers in certain low-productivity regions.

As stressed by Bernard Seidel[16], evaluating the net advantage to a region or country as a result of agricultural guarantee payments is a difficult undertaking. These guarantee payments are designed to maintain farmers' incomes at an adequate level. This is done not by providing direct income support but by supporting (guaranteeing) the prices paid to farmers. All other things being equal, the income advantage accruing to a farmer is

[16] Seidel, B. (1994) *The regional impact of Community policies* in Jørgen Mortensen (ed.) *Improving Economic and Social Cohesion in the European Community*, Macmillan.

equivalent to the difference between Community and world market prices multiplied by the total volume sold at home or abroad.[17]

In terms of safeguarding incomes under the market-regulation system, the regional origin of the Community products on which guarantee funds are spent is, formally speaking, immaterial. However, since the structure of products displays major variations from one region to another, the incidence of the different support schemes also shows large variations from one region to another.

According to Seidel's estimates, the CAP guarantee payments for sugar, cereals, milk, oilseeds and beef (accounting for a total of 70% of the expenditure under this heading) in general favoured the richer regions of the Community. Only where payments for tobacco, olive oil, mutton and goat-meat and – to a lesser extent – wine, fruit and vegetables were concerned (accounting for less than 20% of the expenditures under this heading) were the poorer regions of the Community favoured to any extent.

In 1992 the Union undertook to implement a significant reform of the CAP in order to reduce budgetary costs and avert an emerging trade conflict with the United States and other third countries in the context of the ongoing trade negotiations (the Uruguay Round). The cereal intervention price was reduced by about a third, thus leading to an implical reduction in prices for oil seeds and protein crops. This, in turn, resulted in increasing incentives to use EU grain as feedstock – to the detriment of imports of soya beans and tapioca.

As stressed by Pelkmans[18], by significantly reducing cereal prices, the 1992 reform involved an elimination of the very unequal redistribution of benefits between large- and small-scale farmers. However, other major products such as sugar, wine and olives as well as some fruits remained completely unaffected. Furthermore, the price reductions for beef and dairy products were probably insufficient to prevent surpluses emerging.

All in all, however, the 1992 reform undoubtedly brought about a significant reduction in the regional inequality of the CAP support schemes. However, as stressed in the Commission's 1996 Cohesion Report[19], the gaps persisted, even if they had been reduced somewhat.

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17 Seidel (1994) p. 224-225.

18 Pelkmans (1997) page 180.

19 European Commission, *First Cohesion Report,* Chapter 4. 1, 1996.

II.4 Costs and benefits of applying other parts of the acquis communautaire

In the course of its existence, the European Union has witnessed considerable improvement, classification and expansion of the body of legislation defining and determining the functioning of its institutions, the aims and instruments of its common policies and the framework in which the internal market operates. Many of the areas which, during the first two or three decades, were exclusively within the competence of Member States have since moved progressively into the realm of common policies

When Denmark, Ireland and the United Kingdom joined the Community in 1973, the need to take national legislative measures in order to secure compatibility with EC legislation was relatively limited. The same held true when Greece joined in 1981 and yet again when Spain and Portugal joined in 1986. Moreover, when Austria, Sweden and Finland joined the Union in 1996, they had already adopted a large part of the single market legislation, by virtue of their membership of the European Economic Area. Even in the latter case, therefore, the need for new legislative measures was relatively limited.

With EU legislation having gone through both a deepening and widening process, the acquis communautaire as the body of legislation and regulatory measures that a new Member State needs to adopt, implement and enforce upon accession, will impose an inordinate burden on national administration and legislators.

A candidate country from Central and Eastern Europe or the Mediterranean will have to embark upon a gargantuan task of approximating primary and secondary legislation, enforcing new policies, and enhancing the capacity of courts of justice to deal with legal conflicts concerning many aspects of EU law and competition policy. In certain areas, such as environment protection, consumer protection, veterinary control and plant health, enforcing legislation will require that laboratories be set up, investment be made in testing equipment, inspectors and laboratory personnel be trained, etc. In most cases, the candidate country will not necessarily be in position to provide such equipment or know how from domestic sources and will, therefore, be obliged to obtain them from abroad.

Consequently, for a new Member State, the adoption, implementation and enforcement of the acquis will entail considerable economic and financial costs that will have to be borne over a relatively short period. For low-income countries, the costs may be so large in proportion to national income as to be prohibitive or they will call for extensive periods of transition.

II.5 Impact of the EC budget and the Structural Funds

In this context it should be stressed that compared to other integrated economies, the Community is a highly divergent economic area. In fact, despite the relatively high degree of economic integration already achieved, divergence with respect to income and unemployment within the Community is higher than in the United States. The regional disparities in the EC with respect to GDP per capita are almost twice as high as in the USA[20] and, with respect to unemployment, more than twice as high. More important still, labour mobility in the Community is much lower than in the United States: not only between, but even within member states. In fact, in the early 1980s labour mobility was broadly two to three times higher in the United States than in Western Germany or the United Kingdom[21]. The Community's labour force is much less willing or able to move from one region to another in response to changing employment opportunities and income differentials. Pockets of unemployment are therefore likely to persist longer and be more deeply entrenched in the Community than in an area with a more mobile labour force.

With the accession of Greece in 1981 and of Spain and Portugal in 1986, the Community took on a new economic and geographical dimension. With these enlargements, the overall degree of economic and social disparity rose considerably. Entry into the Community nevertheless appears to have offered new possibilities for expansion in Spain and Portugal. Since 1986 those two countries have, indeed, succeeded since 1986 in raising their GDP per head relative to the Community average. Meanwhile Greece, Ceuta and Melilla, Northern Ireland and parts of the Italian Mezzogiomo have fallen still further behind. On average, therefore, the regional disparities within the Community were not greater reduced during the latter half of the 1980s. Moreover, the incorporation into the Community of the former German Democratic Republic entailed a significant increase in the overall degree of disparity within the EC.

The financial transfers provided via the Community's budget to 'Objective 1 regions' (the regions with a GDP per capita less than 75% of the EC average) provide a significant direct boost to activity in those regions. Portugal, Greece, large parts of Spain and Italy and the new German *Länder*, thus, receive transfers amounting, on an annual basis, to 3-5% of GDP. In most cases these funds serve to co-finance investment in infrastructure, industrial development programme, etc. In many cases these projects are to some extent implemented by external contractors and may require imports of machinery, equipment and certain raw materials. The net short-term effect on the local economy will thus be less, and in certain regions much less, than the gross injection from the Structural Funds.

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[20] The difference between the EU and the United States with respect to regional income differentials is to some extent attributable to the fact that regional statistics in the EU include outlying positions such as Luxembourg. After adjustment for such anomalies the difference is less striking but still significant.

[21] See contribution by Boltho, A. (1994) in Mortensen, J. (ed.) *Improving Economic and Social Cohesion in the Community*, Macmillan 1994.

Nevertheless, estimates prepared in the early 1990s by a group of experts for the European Commission show that these funds lend highly significant support to income and employment in the regions concerned.

These estimates were also corroborated by a systematic analysis of the incidence of the regional effects of EC policies undertaken on behalf of the European Parliament in 1991. Thus, in 1989 and 1990 an average of some 80% of investment support grants by the Regional Fund went to the 20% of the Community's population living in the poorest regions.[22]

The main declared objective of the Structural Funds is, however, not to provide short-term support to activities and income but to promote self-sustained growth allowing those regions to catch up gradually with the more advanced regions. Whether this will in fact be achieved depends upon effects on the productive capacity, i.e. the capacity to retain highly-skilled manpower, develop new activities, exploit existing comparative advantages more efficiently than in the past, relative labour cost and similar factors.

Estimating these long-term structural policy effects will require insight into the existing obstacles to growth, knowledge of specific supply conditions in the region and, not least, the formulation of a scenario for the future development of the region in the absence of financial support from the Structural Funds (a 'baseline scenario'). The formulation of such a scenario is conceptually a difficult task and the availability of statistical data will normally be so limited as to render quantification of a baseline scenario practically impossible.

Nevertheless, according to various estimates, the Structural Funds do indeed contribute significantly to promoting economic activity in the areas concerned. Furthermore, they have a high potential efficiency which, if exploited, can improve the regions' relative growth performance in the long term. For want of micro-economic data, it is impossible to tell whether the Funds' potential is fully exploited or not. That notwithstanding, at least the reform of the Funds (undertaken in 1988/89) has helped significantly to improve the efficiency of their planning, management and financing procedures.

Although the grants and transfers effected via the Community budget are essential elements in the efforts to improve economic and social cohesion, a significant part of national investment is financed through borrowing. Here the European Investment Bank (EIB) has a key role to play both as a source of funds and as a catalyst for other resources, as well as a link to financial markets in general.

[22] Seidel (1994)

The EIB has, in fact, accumulated a stock of experience, which is useful for the assessment of new projects and may thereby serve as a guide both to regional authorities seeking funds and to financial institutions participating in financial engineering in the regions concerned. The EIB, thus, to a significant extent, if only for the projects benefiting from EIB lending, contributes to the ex-ante evaluation of development plans.

II.6 Economic and Monetary Union

As stated in the Werner Report (1970) and in the Report of the Delors Committee (1989), there are three necessary conditions for a monetary union:

– The assurance of total and irreversible convertibility of currencies;

– The complete liberalization of capital transactions and full integration of banking and other financial markets; and

– The elimination of margins of fluctuation and the irrevocable locking of exchange rate parities.

Within the EU, the first of these conditions has already been fulfilled for a long time. As far as the second condition is concerned, considerable progress has been made in banking and insurance. Certain other capital market transactions, such as pension fund investment, remain subject to restrictions in certain Member States. As far as the third condition is concerned, a decisive step was taken with the introduction of the Euro and the fixing of exchange rates between eleven EU Member States.

The literature on the consequences that joining a monetary union bears for an economy is abundant, but rather inconclusive. The key arguments in this discussion focus on the scope for modifying the real effective exchange rate through nominal changes in the exchange rate.

The monetarist view is that the real effective exchange rate will be determined essentially by differences in the underlying levels of productivity in the economies in question. The view is thus held that currency devaluation or appreciation will mainly influence the level of prices and wages, but not the competitive position of the economy concerned.

Other schools of thought hold that changes in real effective exchange rate due to nominal exchange rate changes may last long enough to influence competitiveness, and thus supply and demand, in the economies concerned.

An argument frequently raised in this debate deals with the particular issue of the scope for adjusting the economy to lasting (asymmetric) supply shocks. Examples of asymmetric

shocks are: the discovery of oil or mineral deposits or lasting loss of export markets due to the emergence of new producers in the world market.

Independent of the 'ideological' position concerning the scope for changing the real effective exchange rate through nominal exchange rate changes, there is hardly any disagreement that in a monetary union, adjustment to lasting supply shocks will require a high degree of flexibility in domestic wage and price formation.

Furthermore, in the absence of the exchange rate option, more significant increases in domestic production costs relative to those of other participants in the monetary union will lead to a loss of competitiveness – at least in the short term. This may possibly lead to unemployment and balance of payment deficits. The need for labour market flexibility and efficient adjustment of wages and prices can, therefore, be assumed to be larger within a monetary union than in economies pursuing a regime of exchange rate flexibility.

III. Costs and benefits of EU membership for the CEECs

III.1 Main features of the CEEC economies

The ten candidate countries in Central and Eastern Europe by no means constitute a homogeneous group of economies. At one end of the scale, Bulgaria in 1997 had a GDP per capita of only 1100 ECU, corresponding to 6% of the average of the 15 present Member States. Expressed in Purchasing Power Parity (PPP) terms the Bulgarian per capita GDP, at 4400 units, was substantially higher in proportion to the EU average (some 23%) but nevertheless only about a third of the GDP per capita of Greece, the EU Member State with the lowest income level. In Latvia, Lithuania and Romania the income level is marginally higher than in Bulgaria, yet those countries on the whole share the same characteristics: low income and a high proportion of the population still in agriculture.

Among the CEECs, the country with the highest per capita income is clearly Slovenia. In 1997, it had a GDP per capita close to that of Greece and Portugal, at least in PPP terms, 13000 ECU as against 13100 for Greece. With a per capita GDP in PPP terms of 12000, the Czech Republic, however, does not lag far behind Slovenia, while Estonia, Hungary, Poland and the Slovak Republic constitute a medium group with income levels (PPP terms) in the range of 7000-9000 ECU. In 1997 the combined GDP of the 10 candidate countries in nominal terms amounted to slightly less than 300 billion ECU; a level approximately equivalent to the GDP of the Netherlands. All these economies have now been involved in a hectic transition process for at least a decade. They have already gone a long way to introducing a genuine market economy and taking up a position for themselves in the international market place.

Furthermore, most of these countries are already experiencing a rapid growth in output and productivity. They would, no doubt, even without EU membership, succeed in gradually increasing their per capita GDP in proportion to the EU average over the next decade or two. Furthermore, this process of income convergence is favoured and promoted by the effects on the level and structure of trade with the EU in the framework of the association agreements (the Europe Agreements).

III.2 Analysing the effects of EU membership for the CEECs: conceptual issues

As indicated above, analysis of costs and benefits for CEECs of EU membership must ideally take account of both the general effects of economic integration and the more specific effects of participating in EU policies, benefiting from support from the EU and applying the acquis communautaire.

In accordance with the approach outlined above, undertaking a complete assessment of the costs and benefits of EU membership would involve addressing the following issues:

- effects of joining a customs union
- effects of free movement of intangible goods
- effects of free provision of services
- migration of labour
- free movement of capital
- effects of joining the monetary union
- elimination of non-tariff barriers, harmonization of standards and application of the *acquis communautaire*
- effects of applying the prudential rules and regulations of the EU Internal Market
- impact of the EU budget and, notably the Structural Funds
- impact of the CAP and other common policies
- impact on the industrial and regional structure of the economy

Undertaking a full assessment of these issues is a major, indeed impossible, task in any country; it calls for considerable input of human resources and a broad-based research capacity with substantial financial support from public authorities. In the process of joining the EU or the European Economic Area certain countries such as Sweden, Austria and Norway did in fact carry out such comprehensive research projects in the past.

However, the vast majority of research projects on the effects of integration have only addressed specific aspects of the process: they have either excluded other aspects from

the scope of the analysis or, alternatively, introduced simplifying assumptions concerning issues not directly addressed in the study.

Independent of the analytical focus, all empirical studies are faced with the fundamental methodological problem of isolating the effects of integration from the effects of developments which would have taken place in any event when shifting from a command to a market economy. Ideally, i.e. from an epistemological point of view, an assessment of the integration effects would thus need to proceed from a baseline scenario expressing the (expected) future evolution of the economy concerned in the absence of the full or partial effects of integration.

As underlined by Breuss,[23] modelling an 'anti-monde' scenario against which to assess the impact of alternative adjustment processes is in itself a highly complex exercise. The construction of a baseline scenario is contingent on the articulation of explicit views on the future path of a number of parameters, variables and policy instruments. Or, as a minimum, it requires that a number of assumptions be adopted on the future development of the economies in question.

An 'ideal' model of the effects of integration would cover not only CEEC aggregates, the EU aggregate of the EU and that of other world regions, but also the impact on the individual EU newcomers and EU Member States. In the ultimate analysis, this would allow for an assessment of the costs and benefits for each member in the 'enlargement game'. A tool widely used to calculate such estimates is the so-called General Equilibrium Model. These models include allocation effects (redistribution between sectors). On the other hand, they are normally constructed on the assumption of full employment and thus do not allow for analysis of short- or long-term macro-economic disequilibria (unemployment and/or inflation, balance of payments deficit, etc.).

In practice, setting up baseline scenarios and compiling estimates of the effects of various integration measures becomes an iterative process. A compromise will need to be struck between the desire to take account of as many factors as possible (including, in particular, their interaction) and the actual availability of data, modelling and computational capacity.

Looking down the list of issues to be addressed, the effects of joining the customs union could perhaps be expected to be relatively limited in the case of the CEECs considered. In fact, these countries are already in the process of adjusting their foreign trade to the conditions of free trade in manufactured products provided for in the Association

[23] Breuss, F. (1998/b) *CGE Model Estimations of Costs and Benefits of EU Enlargement: A Survey*, Paper presented at the IIASA Workshop on *The Time Pattern of Costs and Benefits of EU Accession*, Laxenburg, 3-5 December 1998. Mimeo, WIFO Vienna. See also Ohly, C. (1993) *What Have We Learned About the Economic Effects of EC Integration*, Economic Papers, N° 103, European Commission, DG II, September 1993.

Agreements. Indeed, most of the CEEC trade with the Members of the EU, the EFTA and the CEFTA, accounting for some 60-65% of those countries' total trade, is already conducted on a duty-free basis. Well before actually becoming members of the Union, they will in fact have gone through a substantial reshuffling of the geographical and commodity structure of their trade with a huge increase in trade with the Union. This process can be expected to continue the next few years – and independent of the deadlines set for accession. Consequently, the effects of joining the customs union may be marginal compared to the overall restructuring of exports and imports already under way.

The effects of participating in the free movement of intangible goods within the internal market may likewise be relatively insignificant. Even today, the import and export of intangible goods, such as transfer of technology and the sale of patents, brands, chemical formulas, and bio-technological know-how are undertaken relatively freely (without customs tariffs). It is, therefore, unlikely that accession to the EU in itself will entail substantial changes in this trade. The very fact of entering the Union may, nevertheless, ensure better protection of intellectual property rights and stimulate the transfer of technology inherent in direct investment.

In contrast to the free movement of tangible and intangible goods, liberalization of the provision of services may have an appreciable impact on the economy of the CEECs. As pointed out above, even among the current EU member states, this part of the 1992 programme was estimated to exert a significant influence on the market for such services as financial services, business services and transportation, in various member states. For the CEECs accession to the Union will yield a potential for a fundamental restructuring of several service sectors, thus making for substantial productivity increases and elimination of inefficient capacity. However, since the service sectors of the CEECs are already involved in a process of transition to a market economy, it may not be easy to isolate the effects of EU membership from the effects of modernization overall (the 'anti-monde' problem referred to above).

In the context of implementing the Treaty provisions for free movement of labour, the effects of opening up labour markets in the current EU member states to immigration from the CEECs could potentially be considerable for both parties. Given the huge wage differential between the current EU member states and the CEECs, the incentive for CEEC residents to seek jobs in the more developed EU economies would be strong. However, even among the current EU Member States movement of labour is hindered by a number of obstacles, such as language and culture, limited portability of pension rights and social security provisions. Considerable doubts therefore persist as to the degree to which the potential for migration from the CEECs to the current EU member states will actually be taken up.

In any event, migration of labour could be dampened by the migration of capital, mainly in the form of direct investment, towards regions with low labour costs and relatively qualified manpower. In terms of efficiency and regional social balance within an enlarged Union, strong arguments prevail in favour of moving capital to regions on the periphery with abundant and cheap manpower resources rather than moving labour to the congested highly industrialized conurbations in the current Union Member States. Capital imports of this kind have already allowed Ireland and, to a certain extent, Portugal to 'catch up' swiftly. During the initial years of transition, certain CEECs, notably Hungary, benefited from considerable foreign direct investment from abroad. Moreover, there would seem to be potential for a substantial rise in such capital inflows into all CEECs, once the accession date has been set and publicly announced.

Furthermore, the mobility of capital may be considerably enhanced, if liberalizing capital movements is combined with stabilizing nominal exchange rates and pursuing a stable monetary policy as implied in membership in the Monetary Union. One significant benefit from joining EMU could well be a considerable drop in real interest rates compared to the level prevailing in the absence of membership. On the other hand, for those countries where the underlying tendency is for costs and prices to rise more than abroad, adverse effects might accrue from losing autonomy in monetary policy and, hence, the option of devaluing their currencies in order to restore competitiveness. Many of the CEECs have, however, already managed to reduce inflation significantly by adopting internal stability-oriented policies. They might, therefore, derive considerable benefits from joining the EMU.

The CEECs are already on the way to adopting the acquis communautaire relating to single market legislation and mutual recognition of norms and standards; this is being undertaken within in the framework of the Europe Agreements and with considerable financial assistance from the PHARE programme. Since the quasi-full implementation of the acquis is a key condition for accession, the candidate countries are expected to implement this comprehensive body of primary and secondary legislation from the day of accession or, in some areas, arrange transitory arrangements. The costs of complying with existing EU legislation, norms and standards vary considerably from one area to another. For example, adopting EU company law is mainly a question of ensuring appropriate consistency between a number of legal texts and it bears relatively few direct financial implications. On the other hand, adopting EU legislation in the field of environmental protection, animal health and consumer protection entails, for example, setting up administrative and legal procedures needed to enforce legislation and creating the institutions and laboratories to conduct the physical control of norms and standards. In addition, complying with norms and standards at the enterprise level will call for comprehensive and costly changes in production processes, retooling and investing in new applications. As already emphasized in the preceding chapter, the financial implications of all this may be considerable, amounting in the case of the low-income CEECs to several

per cent of their annual GDP: a cost that will have to be sustained over an extended period.[24]

To some extent, the macro-economic and financial costs of adopting the acquis will be offset by the financial assistance to be granted via the EU Structural Funds. Even with the ceiling set for subsidies under these Funds, most CEECs can expect to receive grants amounting to some 4-5% of GDP over an extended period. In many cases these grants will serve to fund various infrastructure and/or environmental projects, thus allowing the country to embark upon a rapid implementation of the acquis, and so reduce the duration of the transitory arrangements.

Implementation in the CEECs of the Common Agricultural Policy will entail a considerable increase in the consumer prices of many agri-food products as well as a certain amount of additional EU expenditure on market support mechanisms. According to Agenda 2000[25], in 1997 agricultural prices in many CEEC countries and markets were considerably lower than those in the EU. The differences amounted to some 10-30% for cereals, oilseeds and protein crops and 40-50% for sugar beet, 30-40% for milk and dairy products and 35-45% for beef. These price gaps are expected to close considerably over the next few years. Furthermore, the situation differs from one CEEC to another. In Poland, prices for some agricultural products are already close to EU levels. However, in some countries and for certain products, accession would result in rather substantial increases in consumer prices for food and other agricultural products.

Substantial price increases for food can be expected to exert a negative influence on demand; they might also possibly induce increased reliance on self-sufficiency for many food products. Whether a surplus of supply over demand will ultimately emerge in these markets will depend upon the capacity of agriculture and the agri-food industry to modernize their methods of production and invest heavily in productivity improvements. This process can be expected to take years, if not decades, calling for sweeping changes in production structure and distribution. As already indicated, the implementing EU legislation pertaining to consumer protection and environment may in some cases call for costly changes in production techniques, such as reducing the use of hormones and eliminating certain categories of vaccination.

Finally, accession to the EU is likely to lead to an aggravation of certain structural problems and regional imbalances in the acceding countries. Within the Union today, regional

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[24] According to a recent estimate, the total cost of applying the EU standards and norms would, for Hungary, be in the range of 50-120 per cent of one year's GDP (to be extended, of course, over a long period of time). Dezséri, K. (1999) *Az Európai Unióhoz való csatlakozás várható költségei (Expected costs of the EU accession for Hungary)* Külgazdaság 1/1999 (Budapest) p. 56 .- 72.

[25] European Commission Agenda 2000, Volume I, section II.1, 1997.

income disparities between member states have on the whole been reduced over the most recent decades. However, this decrease in disparities between countries has been accompanied by a certain increase in regional imbalances within the countries. This contrasting development would appear to be attributable to a tendency for the benefits gained from opening up frontiers within the internal market to accrue in the most competitive regions and industries. For their part, the peripheral and less developed regions and branches tend to suffer from increasing competition from abroad; they may thus fall behind as compared to the relatively high-performance regions and branches. In the CEECs, regional imbalances are already rather large in some cases; they may be aggravated still further during the integration process. The social costs of this aggravation of regional imbalances could be substantial in certain countries and might call for the introduction of compensatory mechanisms.

IV. The most important findings of the Country Reports

IV.1 General overview

IV.1.1 On the project

In an historical perspective, participation in the European integration process is most likely to be beneficial for the applicant countries. However, it is also clear that accession and accommodation of change in the first couple of years thereafter will pose a major challenge to the new members, in some ways comparable only to the applicant countries earlier shift from a command to a market economy. No doubt, benefits will be enormous once these countries enjoy completely free access to the European market and become beneficiaries of the European redistribution schemes. However, the costs associated with accession are just as enormous. Accession calls for a comprehensive adjustment process to norms and standards accepted in countries displaying much higher levels of economic development than the applicants. Temporary exemptions and carefully calibrated transitory regulations may diminish the pains of adjustment significantly. Achieving this, however, will call for exact knowledge of critical issues and a careful mapping of the nature and scope of potential costs in each segment of the applicant countries' economy. Ignoring potential costs and failure to use instruments which could alleviate these problems may well prove very expensive as revision of the once negotiated conditions of accession is not foreseen.

The aim of this Phare-ACE project has been to identify scientifically based, internationally accepted and easily applicable methods for studying and, where possible, quantifying the costs and benefits of accession for four CEECs (the Czech Republic, Hungary, Poland and

Slovenia).[26] It is hoped that mapping out the methodology of these studies will help both CEEC decision-makers and EU officials to gain a more realistic perception of the macro-economic and structural impact of CEEC accession to the Union. The results of the project may also assist the CEECs in preparing their experts for the accession negotiations. As already mentioned, the correct perception of gains and potential threats or weaknesses are preconditions for successfully negotiating 'the rules of the game' to be applied during the transition period, i.e. the period between formal accession and completion of the final derogation. Results from scientifically established and internationally accepted measurements and analyses may prove helpful in finding a common denominator in some of the important components of the accession talks.

Research results are also intended to contribute towards the CEECs adopting a more balanced information strategy. Apart from evaluating the gains, an 'early warning' system alert to potential detrimental effects could help to avoid disappointment and the emergence of an anti-EU mood swelling up in new member countries following accession.

The project comprised a series of discrete stages. The first stage involved the collection and evaluation of past and current research results on the subject in the countries concerned. In this first stage four country-specific research papers following a uniform structure and methodology[27] were written by partners in the Czech Republic, Hungary, Poland and Slovenia. The second stage focused on comparing the results of the four country reports.[28] Thereafter, a separate paper was devoted to the comparison of mathematical solutions and models applied in the projects surveyed in the country reports.[29] In the final stage, a synthesis paper was written presenting the theoretical background to the problems analysed, a summary of the most important findings of the country reports and the team's recommendations.[30] The project started in May 1997 and was completed in July 1999.

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[26] Members of the research team were Vít Bárta (then as free lance researcher, Czech Republic), Elsbieta Kawecka-Wyrzykowska (Foreign Trade Research Institute, Warsaw), Boris Majcen (Institute for Economic Research, Ljubljana), Mario Strapec (Centre for Economic Research and Graduate Education, Prague), Jørgen Mortensen (Centre for European Policy Studies, Brussels), Tamás Szemlér (Institute for World Economics, Budapest) and Sándor Richter (The Vienna Institute for International Economic Studies, Vienna), project co-ordinator.

[27] Bárta, V. (1999) *Country Report: the Czech Republic* (mimeo); Szemlér, T. (1998) *Country Report: Hungary* (mimeo); Kawecka-Wyrzykowska, E., (1998) *Country Report: Poland* (mimeo); Majcen, B. (1999) *Country Report Slovenia* WIIW Research Report No. 256, May 1999, Vienna.

[28] Richter, S. (1999) *Summary of the Country Reports: the Czech Republic, Hungary, Poland and Slovenia* (mimeo) Vienna, June 1999.

[29] Strapec, M. (1999) *Models used and to be used in cost and benefit evaluations of the eastern enlargement. Technical Report* (Mimeo) Prague, June 1999.

[30] Mortensen, J. , Richter, S. (1999) *Measurement of costs and benefits of accession to the European Union for selected CEECs. Final Report* (Mimeo) Paris – Vienna, June 1999.

IV.1.2 Focus of the research programme

Form the very outset, the research team was aware of the difficulties related to implementing the programme. A full-scale investigation measuring costs and benefits in all relevant segments of the economy of the countries concerned outstrips the capabilities of a small research team. Therefore, one of the most important initial tasks was to pinpoint a limited number of critical areas for the research efforts. A second task of similar importance was to come to an agreement on a unified approach that the authors of the individual country reports were required to apply so as to facilitate the subsequent comparison of their findings across countries. The first two meetings of the research team were devoted mainly to these two issues.

After a discussion of various alternatives the research team agreed to focus the country reports on four selected special areas: (i) macro economic analysis, (ii) agriculture, (iii) regional policy and aid; and (iv) customs union.

(A) Macro-economic approach

– Impact of the emerging EMU on the four accessing countries

(B) Sectoral approach

– Agriculture

– Regional policy issues

– Free movements of goods, customs union

Originally we had intended to compare comprehensive investigations of costs and benefits accruing to the economy as a whole in each of the four countries. For want of adequate literature in some countries and given the need to keep the length of the country reports manageable, the analysis of the comprehensive investigations of costs and benefits of accession accruing to individual countries had to be integrated in the introductory sections of the country reports.

The team wanted to delineate the scope of investigation in another respect. Within each special area (thematic segment) no more than five related research projects were to be used. In the hypothetical event of the projects exceeding this number, the five best projects were to be selected and a brief reference made to the other projects.

In order to facilitate the comparability of the individual country reports, a catalogue of questions was drawn up for the authors to answer in the case of each individual project investigated. If applicable, these questions had to be answered, while the authors were

granted the licence to adopt any other approaches they found useful to describe a project in a given special area.

The questions were:

What research methodology is being applied?

– Technical details of the methodology
– Was the 'accession vs. non-accession' approach applied?
– To what extent was the ‘moving target approach’ applied?
– How was the time horizon of costs and benefits treated?

Are there vested interests in the results of the investigation?

– (Is the investigation politically biased?)

What are the research results?

– How detailed is the final output of the cost/benefit analysis and how is it structured?
– How can the results be evaluated? Which aspects of the investigations have been best elaborated?
– Which aspects are missing or which aspects have been weakly addressed in the investigations?
– What is the range of results of individual partial analyses in the country concerned?
– What are the reasons for the differences, if any?
– Are the individual projects related to each other in some way?
– Are there references in individual projects to similar projects
  a) in the country concerned,
  b) in other applicant eastern countries, or c) in countries which joined the EU earlier?

IV.1.3 Research and real life problems

At the time of elaborating the project research programme (in the autumn of 1996), the beginning of the accession negotiations were not in sight. Actual work on country reports started in spring 1997, well before the Commission published the Agenda 2000 which provided the first tentative schedule for eastern enlargement and the related financial framework. The publication of the Agenda 2000 changed the environment of the research project. The original assumptions were that research would be conducted in an environment where the prospects of accession to the EU were already strong enough to

initiate or intensify research on costs and benefits in the countries concerned, but accession negotiations themselves had not begun. If this assumption had proven true, it would have meant that costs and benefits would not have become stakes in the accession negotiations and the governments in the countries concerned would not have felt uncomfortable, had the research community openly discussed them. With the beginning of accession negotiations, however, an ever-increasing amount of information was declared confidential. Costs and benefits were analysed in government bodies, isolated from the public or public discussions, or members of the research community involved in government initiated/financed research were asked to refrain from discussing their findings in public. However understandable this development may be, it can hardly be deemed conducive to research, as a major part of our sources were no longer readily available. Certainly we do not regret the acceleration of the accession process but there can be no doubt that the scope of investigation has become narrower as a result.

IV.2 Strategic issues

In the project programme finally agreed upon, it was decided not to include a detailed presentation and comparison of comprehensive studies measuring the costs and benefits of accession to the EU for the economy as a whole in the four applicant countries. The reason for this was that in the course of the research team's preparatory meetings it became quite apparent that comprehensive cost and benefit analyses of this kind do not exist in any of the countries concerned. However, so called 'strategy papers' written by a groups of researchers and civil servants were available which warranted analysis.

These strategy papers were designed to provide a comprehensive analysis of the most important issues of accession to the EU of the country concerned. In these papers, attempts were made to address the issue of costs and benefits of accession in a comprehensive manner. In addition to these strategy papers, individual research papers had also been written on the topic. In Hungary, Poland and Slovenia the government had initiated at least one major research project to assess the economic impact of the accession and publish the results in strategy papers. In the Czech Republic no such research had been undertaken by the time the project started, and even in 1999 only preliminary results were reported. An overview of these comprehensive approaches is given below.

IV.2.1 The 'strategy papers' written in the countries concerned

SLOVENIA

Comparing the country reports written in the framework of this project the impression prevails that of the four countries investigated Slovenia has gone farthest towards

elaborating comprehensive strategic documents on the accession to the EU. In Slovenia a series of strategy papers have been published over recent years, partly building on each other. The first paper was published in 1995 entitled 'The Strategy for Economic Development – Approaching Europe: Growth, Competitiveness and Integration' (SEDS).[31] This document argued that, regardless of the uncertainty concerning the date of accession to the EU, immediate steps were to be taken to: (i) prepare analyses in different fields on the consequences of integration; and (ii) continue the adaptation of the legal system and norms to EU standards. This document did not present any direct estimation of the possible effects of Slovenia's entering the EU. In 1996 another strategy paper was published: the 'Strategy of International Economic Relations – from Association to Full-fledged Membership in the European Union' (SIER).[32] The document was the output of research undertaken by close to 50 independent experts financed by the Ministry for Economic Relations and Development. The authors of the SIER also came to the conclusion that integration into the EU was the best of all possible alternatives. The customs union theory and Porter's diamond of competitive advantages were used to undertake a qualitative estimation of possible integration effects.

In the latter paper, the effects of full membership were subdivided into short- (static), medium- and long-term (dynamic) effects. It was expected that in the short term, the costs of adjusting to the common market and EU rules of operation would be higher than the positive effects of increased prosperity: a 'productivity shock' was expected to affect both employment and price relations in agriculture and increase budget expenditures, despite a net inflow from the EU budget. Demonstrable medium- and long-term effects were expected to accrue primarily through higher economic growth, economies of scale, higher investment due to the favourable location, increased competitiveness, lower budget outlays and lower transaction costs. Loss of monetary sovereignty was regarded as one of the largest costs associated with integration into the EU; other costs were caused by the re-direction of trade, closure of selected production programmes and downsizing in selected production and service sectors. Moreover, budget revenue was expected to shrink owing to the abolition or reduction of customs tariffs, while government expenditure (and the tax burden) would increase. However, the costs and benefits of full membership were not evaluated in terms of such non-economic aspects as political, security-related, social, spatial/regional, environmental, cultural and national considerations.

A more recent document in the series of strategy papers is 'The EU Accession Strategy of the Republic of Slovenia'[33] (further 'Strategy'). In the opinion of the author of the country

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[31] Potocnik, J., Senjur, M. and Štiblar F. (editors), (1995): *The Strategy for Economic Development -Approaching Europe - Growth, Competitiveness and Integration*, Institute for Macro-economic Analysis and Development, Ljubljana, p. 152

[32] Bobek, V. et al (editors),(1996) *Strategy of International Economic Relations - From Associated to Full-fledged Membership in the European Union* Ministry of Economic Relations and Development, Ljubljana.

[33] EU Accession Strategy of the Republic of Slovenia: Economic and Social Part, Institute for Macro-economic Analysis and Development, Ljubljana, 1997.

report on Slovenia, this is the most thoroughly prepared comprehensive official document; it is based on the strategic documents mentioned earlier and additional research in specific areas. It addresses the issues raised by the Commission in 'Agenda 2000 – Commission's Opinion on Slovenia's Application for Membership in the European Union.[34] With a policy matrix summarizing objectives/targets, the main policy measures to be adopted and implemented, as well as their sequencing, the strategy was also designed to serve as the basis for negotiating the transitional arrangements needed in certain areas.

A special paper was added as Appendix 2 to the 'Strategy' with the aim of assessing the costs and benefits of Slovene integration. Based on certain premises, viz. duration of the pre-accession period (the year 2002 was taken as the year of accession) and the duration and conditions of the post-accession period of transition, the author of that paper made the crucial assumption that Slovenia would be able to fulfil the tasks included in the harmonization schedule for the adoption and enactment of EU legislation. The assessments made were based on a synthesis of different sources: applications of theoretical conclusions; analogy with countries at a similar level of development when integrating into the EU; relevant empirical calculations made by the European Commission; and empirical calculations pertaining to the Slovene economy made by several authors. The analysis focused on three areas: effects of further liberalization of foreign trade; effects on economic growth; and welfare. The first issue will be dealt with in detail in the respective chapter of this paper. As for the effects on economic growth and effects on welfare, empirical studies based on a CGE model have shown the net effect of Slovenia's full membership in the EU to be positive. Results suggest that in Slovenia the effects of integration into the EU on GDP growth would be highly positive and no less than those calculated for other European countries. The author concluded that the effects of integration would be undoubtedly positive in the long run. EU enlargement will create a wider economic area of almost 500 million consumers. Liberalized movement of production factors and goods and services, common rules of the game and a single currency will all contribute to economies of scale, as well as to the more efficient allocation of and increase in resources. This is assumed to spur economic growth, reduce inflation and improve the competitiveness of the Slovene economy. Slovenia would become increasingly attractive as a trade, transport and financial centre.

These benefits were not thought to be immediate, nor were they evenly distributed. On average, the most positive effects would transpire only in the long term, and only if the enterprises and economic policy prove themselves capable of adjusting properly to the new economic environment. At both the sectoral and regional levels, adjustment pressures were expected to be substantial in the pre-accession period and to continue long after accession. The costs of integration would frequently coincide with the costs of transition to

[34] European Commission, July 1997.

the market economy system as well as the costs of increasing the general level of economic development.

For Slovenia, it is difficult to predict directly the sectoral distribution of costs and benefits accruing from integration. According to the results of simulations using the CGE model made by J. Potocnik[35], based on the 1995 SAM, disaggregated into 25 standard sectors, negative effects of adjustment were expected in the following sectors: manufacture of textiles and textile products, wood and wood products, non-ferrous mineral products, machinery and equipment, agriculture, food and beverages, mining, production of cellulose, paper and cardboard and manufacture of basic metals and metal products.

The net budgetary effect of integration are expected to be highly positive since Slovenia is less developed than the present members of the Union and during the period of the New Financial Perspective 2000-2006, will qualify for transfers from EU Structural Funds and the Cohesion Fund. A further net inflow of funds can also be expected as a result of the application of the Common Agricultural Policy (CAP). Calculations by different authors of net inflows into Slovenia show quite a wide range of estimates, all of them in Slovenia's favour. The authors conclude that the net macro-economic effect of the transition/accession reforms in the medium and long term will be positive. Delay or failure to implement the major important and urgent reforms would cause severe problems.

For all its excellent organizational structure with each and every macro- and micro-economic policy analysed in three chapters in terms of a) the present situation and problems, b) objectives and targets, and c) policy directions and measures, the 'Strategy' for Slovenia stops short of estimating costs and benefits of the reforms announced for each particular policy and the possible effects compared to the status quo.

The target-date set supposes that most of the reforms and institutional regulatory adaptations will have been completed by the end of 2001. A number of factors will militate against this objective; it is quite possible that the country will fall into the trap of ever-increasing delays with all their negative consequences. Moreover, if this problem is set aside, the effects of reform will extend beyond the pre-accession period into the post-accession period of transition.

The author of the country report on Slovenia found that for the most part, the effects of the reforms to be implemented were presented only in macro-economic terms. They were analysed in qualitative terms, yet not broken down according to pre- and post- accession period. No distinction was made between the reforms needed to complete the transition process and those needed to prepare successfully for accession. The additional

[35] Potocnik, J. (1997) *Effects of Slovene Integration into the EU - CGE 1995*, Institute for Macro-economic Analysis an Development, Ljubljana, 1997.

development target scenario was based on the assumption of macro-economic stabilization and successful implementation of structural reforms (it partly quantifies the outcome of the reforms at the end of the pre-accession period), but it did not assess in quantitative terms the possible outcome of delaying the reforms. According to the author of the country report on Slovenia, Appendix 2 of the 'Strategy' was written in order to provide a macro-economic justification for the political decision already adopted and inform the domestic public about the economic consequences of integration. It is not directly linked to the reforms proposed for the pre-accession period as such, but to their long-term consequences; it remains at the aggregate level and pays inadequate attention to possible problems at the sectoral level. On reading the paper, the overall feeling about costs and benefits is very positive.

In the evaluation of the author of the country report on Slovenia, the 'Strategy' was excellently prepared, albeit at very short notice, using several existing documents and studies. The essential estimation of possible costs and benefits (for each macro-economic policy and sectoral structural reform) would have taken much more time and called for additional efforts, yet that information would undoubtedly have been necessary in order to detect looming problems and take the measures required to overcome or at least diminish those problems.

HUNGARY

In Hungary a comprehensive investigation concerning the impact of EU accession was implemented in a dual structure. The task of elaborating the Hungarian negotiation strategy was assigned to the Secretariat of State for European Integration in the Ministry of Foreign Affairs. A large part of this preparatory work was carried out by the public authorities. The other channel of investigation was set up in the framework of the Strategic Task Force for European Integration (STF). The mission of the STF was to establish the scientific background to the Hungarian EU strategy and the task force relied on studies conducted by researchers from various Hungarian research institutes. An appreciable segment of the Hungarian research community took part in the activities of the STF.

Both the Secretariat of State for European Integration and the STF worked under the supervision of the Cabinet for European Integration (chaired by the Prime Minister).

Within the context of the preparatory work co-ordinated by the Ministry of Foreign Affairs, 27 inter-ministerial groups of specialists have been involved. Comprehensive analyses outlining the Hungarian negotiation strategy were completed by February-March 1998, about one month before the official opening of the accession talks but, regrettably at least from the project's point of view, the reports were classified confidential.

The research conducted under the auspices of the STF was based on 19 thematic working groups, each headed by an acknowledged expert in a given field. The STF published a number of reports analysing various aspects of the accession process and provided a comprehensive evaluation of the past, present and prospective relations between the EU and Hungary. The experience gained during earlier enlargements was analysed. The conclusions served to elaborate the Hungarian negotiation strategy and put forward recommendations for the priorities to be set and areas for derogation.

Although one attempt was made to establish an analytical framework for a comprehensive cost benefit analysis of Hungary's accession to the EU, no quantitative analysis was, in fact, prepared on this topic.[36] It would seem that researchers working with econometric models in Hungary have shown no interest in analysing the effects of EU accession, while the economists working on EU accession do not use models. The final report of the STF activities had not been published at the time of drafting. It is therefore unclear whether it contains quantitative estimates of the costs and benefits of accession.

POLAND

In Poland a strategy paper entitled 'National Strategy for Integration' was published in 1997. The document was elaborated by the Office of the Committee for European Integration pursuant to the resolution of the Polish Republic of March 14, 1996.[37]

The Strategy Paper was mainly addressed to the administrative bodies within Government, responsible for integration into the EU, to the Parliament, to the President and other institutions, as well as to the general public. It defined the overall political, economic, institutional, legal and educational framework relating to Poland's preparations for EU membership. It also contained the most urgent recommendations on those issues. The strategy was widely discussed in parliament, in various business circles, in the press and in academic circles. The author of the country report on Poland concluded that the strategy had contributed to a better general understanding of the complex nature of Poland's membership in the European Union.

The strategy contains a long list of political, economic and social benefits related to Poland's accession to the EU. It goes on to warn that costs are also involved: besides the budgetary aspects, other economic and social aspects have to be taken into consideration. While providing a detailed description of costs, the document stresses that adjustment

[36] Balázs, P. (1998) *Szempontok a magyar EU csatlakozás elöny hátrány mérlegének kidolgozásához (On the elaboration of the cost benefit balance of Hungary's accession to the EU)* Közgazdasági Szemle 9/1998 p.835-850.

[37] *National Strategy for Integration.* Office of the Committee for European Integration, 1997.

costs currently associated with accession to the EU, are in fact the price being paid for the Polish economy's slow growth in the past.

In common with a number of other official documents, the strategy does not present quantitative estimates of the costs and benefits of Poland's accession to the EU.

In Poland, one individual research project made an attempt to quantify, if not a balance of costs and benefits of accession, then at least the country's long term growth prospects in the event of (i) rapid and (ii) protracted accession to the EU.[38] The scenarios were based on an econometric model, containing a set of standard equations relating to production, investment, consumption, international trade markets, etc. The two scenarios yielded significantly different results. Rapid integration into the EU as assumed in the optimistic scenario would stimulate economic growth in the period 2001-2005. The growth rate would amount to 6.1% annually, that of individual consumption 4.9%, exports 9.1%, imports 8.9% and the unemployment rate would be 8.0%. With protracted accession, the pessimistic scenario, economic growth would be slower. The GDP growth rate would be 4.7% annually, expansion of consumption 3.0%, exports 7.4%, imports 6.7% and unemployment would amount to 6.3%.

Other members of the Polish research community have written extensively on the overall costs and benefits of the EU accession, but in a qualitative/descriptive manner.[39] The authors stress their doubts about the measurement of overall costs and benefits of accession. They warn that when applied to the economy as a whole, econometric models are of rather limited value. They argue, however, that quantitative estimates seem to be more useful at the level of individual economic sectors or separate policies (agricultural policy, regional policy etc.)

THE CZECH REPUBLIC

In the Czech Republic no (public) comprehensive analysis of the effects of the country's accession to the EU has been made so far. This situation presumably reflects the attitude

[38] W. Welfe, A. Welfe. (1997) *Alternatywy dlugookresowego wzrostu gospodarki polskiej (Alternative scenarios for long-term growth of Polish economy)*, Instytut Rozwoju i Studiów Strategicznych, Warszawa; A. Kwiecinski, A. (1996) *Structural Funds* FAPA, Warszawa.

[39] See: Kawecka-Wyrzykowska, E. (1997) *Motywy czlonkostwa Polski w Unii Europejskiej, in: E. Kawecka-Wyrzykowska, E. Synowiec, eds., Unia Europejska. Integracja Polski z Unia Europejska, (Motives for Poland's membership in the European Union, in: The European Union. Poland's Integration with the European Union)* Instytut Koniunktur i Cen Handlu Zagranicznego, Warszawa. Markowska, E., Mueller, A. (1966) *Ekonomiczne przeslanki przystapienia Polski do Unii Europejskiej (Economic reasons for Poland's accession to the European Union)* Fundacja Innowacja, Warszawa. Perczynski, M. (1997) *Polska na drodze do integracji z Unia Europejska (Poland on the road to integration into the European Union)* in: Belka, M., Trzeciakowski, W. eds, *Dynamika transformacji polskiej gospodarki (Dynamics of the transformation of Polish economy)* Poltext, Warszwa 1997; Orlowski, M. W. (1996/a) *Droga do Europy. Makroekonomia wstepowania do Unii Europejskiej (Road to Europe. Macro-economics of integration into the European Union)* GUS, Warszawa, 1996.

that the former Czech government maintained throughout the first half of 1990s: characterized by the 'benign neglect' shown towards European affairs in general and the delay in the Czech administration's preparation of the integration agenda, in particular. For several years, the lack of pro-European enthusiasm so obviously demonstrated by former political representatives on different (frequently international) occasions discouraged not only public debates on the topic, but also any serious economic research on the potential impact of membership in the EU. A rather ambiguous approach towards entry into the EU (illustrated for example, by parliament adopting the official application for membership only in February 1996 long after other budding Central European candidates) implied practically no demand for a more detailed economic analysis of the impacts of membership on the government. As a consequence, occasional (economic) studies devoted to the accession to the EU were more the outcome of an ad hoc personal affinity of a given author rather than that of systematic and specialized research. Similarly, the level of knowledge on integration issues in government bodies was much more dependent on the personal responsibility of individual officials combined with specific organizational and/or human resources constraints than on palpable pressure from senior politicians and decision makers.

Although the former government modified its general attitude in 1996 and the elaboration of the European agenda has accelerated substantially since, the consequences of the earlier attitude are still to be felt. The number of relevant and original analytical studies attempting to apply a more sophisticated methodology (rather than just back-of-the-envelope calculations) which would cast adequate light on decisive aspects of the potential impact in given areas is still limited.

As indicated above, the preparation of a more articulate strategy is now underway and the government departments are actively investigating the EU norms, directives and regulations under their auspices. The process of legal harmonization is well advanced in many areas and knowledge of the scope of future harmonization has expanded noticeably. All this, however, creates the impression that the integration process is mostly 'in the hands' of legal experts, while awareness of the economic implications (based on reasonable computations) is still rudimentary and rather approximate. A certain cause for optimism stems from the fact that the process of analysing the economic (and budgetary) impact of preparing for accession is currently gaining momentum and further improvement may be assumed for the future.

IV.2.2 Difficulties in applying a quantified approach

To some extent, the lack of comprehensive quantitative cost/benefit analyses in the countries concerned can be explained by the difficulties such computations involve. The arguments are quite similar across countries.

– The transition from a planned to market economy has not yet been completed; some important reforms which are still part of the transition process coincide with reform steps necessitated by preparations for EU accession. Separating the consequences of the transition from those of the integration process is very difficult, if not impossible.

– Modelling exhaustively the complex character of the accession process is, in fact, impossible. Simultaneous analysis of all relevant economic, political and social aspects of accession is quite unfeasible.

– The benefits of increased forms of security in both military and foreign policy terms that full membership in the EU would provide cannot be expressed in quantitative terms.

– Even if the cost/benefit issue is analysed in the narrow sense of the impact on economic growth, it is practically impossible to distinguish those factors affecting growth in general terms which are related to EU accession and those which are not.

– Measurement of comprehensive costs and benefits would require the compilation of data for use as a common denominator for costs and benefits in very different fields: such indicators do not exist.

– The same phenomenon may have opposite effects on various groups of society or in different areas of the economy. For example, higher agricultural output prices after accession are beneficial for farmers, but disadvantageous for consumers. Weighing these opposite impacts gives rise to considerable methodological problems.

IV.2.3 Conclusions

Despite all the difficulties relating to measuring comprehensively the costs and benefits of EU accession, the lack of any such analysis in the applicant countries is partly explained by factors beyond the realm of economic analysis. The decision to apply for EU membership is a political decision, based on historical circumstance in the applicant countries. In the case of earlier enlargements, the situation in the applicant countries was such that they could have opted for non-accession, as some of them (Norway and Switzerland) did. In the four CEECs concerned, non-accession has never been a real option for the political elite. With the Soviet domination and Communist rule still fresh in their minds, the security offered by accession was regarded as a basic objective: a benefit with no match whatever the cost. Furthermore, a crude calculation of the purely economic benefits accruing from full EU membership in terms of net transfers and unlimited access to EU markets also seemed to bear no relation to whatever costs accession might involve. No serious doubts were ever raised by the governments in the countries concerned as to the overall balance of accession being other than positive.

However, even though the decision on accession is predominantly a political decision, the political elite and the research community in each of the applicant countries still have to

face a very important question implicit in that decision: 'How should we accession so that we gain most and lose least in the process?' Answering this question does not require that the overall balance of costs and benefits be computed. It does, however, require that a sound and detailed cost/benefit analysis be made with respect to as many particular aspects of EU accession as possible.

IV.3 The macro-economic approach: costs and benefits accruing from the European Monetary Union to the four eastern applicant countries

IV.3.1 The quest for optimal timing

The eastern applicant countries' accession to the EU is strictly conditional on their fulfilling the requirements which were first specified at the EU Summit in Copenhagen in June 1993. Fulfilling the Maastricht criteria has never been mentioned as a precondition to EU accession. However, it is implied among the prerequisites for accession inasmuch as the applicant countries are obliged to accept the goals of the monetary union and pursue an economic policy that will enable them to join the EMU in the long term. Accordingly, none of the four countries concerned feels obliged to fulfil the Maastricht criteria prior to accession or at the time of accession, although low inflation, controlled public debt and exchange rate stability are among the medium- and long-term economic targets of the governments in the four countries concerned, as is joining the EMU at a later date in the post-accession period.

Even if joining the EMU is not subject to short- or medium-term decisions, the countries concerned have already begun mapping out the related costs and benefits. One of the Polish researchers (Lutkowski, 1997 and Lutkowski 1996/1997) addressing the issue of EMU lists the following benefits for Poland on joining the EMU [40]:

– Monetary convergence over the past few years and the prospects of joining the EMU have helped to reduce inflation in Western Europe, especially among prospective EMU member states. It is expected that this positive effect will apply to Poland, too.
– Access to the EMU offers long-term development prospects for Poland, arising out of its being integrated into the pan-European capital market, reinforced by the hyper stable euro exchange rate.
– Joining the EMU would dispel uncertainties still existing as to proper currency policy and exchange rate stabilization.

[40] Lutkowski, K. (1997/a) *Mozliwosci i warunki przystapienia Polski do Europejskiej Unii Walutowej, (Possibilities and Terms of Accession of Poland to the European Monetary Union) in: Stan przygotowan Polski do czlonkostwa w Unii Europejskiej (Poland's Preparations for Membership in the European Union)* Warsaw School of Economics, Warsaw. Lutkowski,K. (1997/b) *European Monetary Union and Strategy for Integration in Poland. International Economic Report 1996/97*, Warsaw School of Economics, World Economy Research Institute, 1997

– With a strong and stable euro as its currency Poland would no longer have occasion to use devaluation as an easy instrument of means for improving the competitiveness of its economy.
– EMU offers savings on transaction costs.

However strange it may seem the same items are offered as being both costs and benefits accruing from EMU membership: the loss of monetary sovereignty and the consequences of liberalization of capital flows.

It is clear that after joining the EMU no country can pursue its own national economic policy, even in the most crucial fields. It will no longer be possible to change exchange rates to offset growing trade deficits or introduce a monetary policy to support economic growth or boost employment (Bárta 1999).[41] Reduction of monetary sovereignty is a fact of life for the countries currently participating in the EMU; however, it is debatable whether the eastern applicant countries will experience a loss or gain on joining the EMU. In his list of benefits Lutkowski included the fact that with a strong and stable euro as its currency Poland would abandon devaluation as an easy means of improving its economic competitiveness yet in another instance (Lutkowski 1997/b) he warns of the dangers deriving from too early a loss of manoeuvring space in economic policy. On the one hand, the EMU prevents governments from making economic policy mistakes, but on the other hand, it hinders the implementation of economic policy measures tailored to an individual country's specific problem. Let us remain with the example of devaluation cited by Lutkowski. In one approach, it is the wrong route to take out of a balance of payments crisis; it has no lasting effect. In another approach, it is a justified means; it may well help to achieve a more realistic exchange rate by correcting an unsustainable relationship between domestic and foreign prices in a given country.

A similar dichotomy appears in the case of capital flows. Lutkowski (1997/a) and (1997/b) and Oreziak (1997)[42] stress the importance of liberalizing capital flows in the modernization of Poland and point to the increased inflow of capital to be expected once the country is in the EMU. However, Oreziak warns of the dangers of premature liberalization of capital flows which, under certain unfortunate circumstances, may lead to a destabilizing outflow of capital invested earlier.

The crucial issue of deciding whether the costs associated with various aspects of membership in the EMU are greater than the benefits to be linked to the time horizon set

41 Bárta (1999)

42 Oreziak, L. (1997) *System kursowy w Polsce a Europejski System Walutowy, (Polish Exchange Rate System and the EMS)* in: *Mozliwosci spelnienia kryteriów z Maastricht: Problemy krajów w okresie transformacji, (Meeting the Convergence Criteria of EMU: Problems of Countries in Transition)* Conference papers, Polish Economic Association, Warsaw.

for entry into the EMU. The implicit assumption in discussions on costs and benefits is that as time passes the applicant countries from the East will become increasingly mature and hence increasingly ready for entry into the EMU. As long as transition remains uncompleted, the risks associated with participation in the EMU and the consequent loss of monetary sovereignty have been found too high and costs exceed benefits. Bárta (1998) finds that the Czech banking system is far from reaching maturity owing to unresolved property rights, lack of competition, a bad debt problem and the underdevelopment of the financial markets. Oreziak thinks that the loss of adequate manoeuvring space for Polish economic policy could impair the steps taken hitherto to transform and stabilize the economy. Lutkowski lists the potential risks that Poland would face on joining the EMU and argues that fixing the zloty exchange rate within the EMU might result in a sudden collapse of production as trade and balance of payments deficits lead to unemployment.

In Poland both the government and the researchers involved established that the way out of the dilemma lay in gradual approximation to the EMU. At the beginning of 1997, the Polish government presented a memorandum entitled 'Euro 2006'. This document suggested a three-step process to adjust the Polish exchange system to ERM II:

Stage I: gradual shift in the basket of currencies underlying the zloty exchange rate system from the present basket of five major currencies to the ECU;

Stage II: gradual stabilization of the central zloty exchange rate by reducing the present monthly devaluation margin set for the zloty;

Stage III: gradual reduction from 7% to 2.25% of the permissible fluctuation margin set for domestic currency.

The 'Euro 2006' document confirmed the Polish government's intention to take all necessary measures to meet the Maastricht criteria by 2006-2008. Decisions as to the modalities were left to future decision-makers who should decide in the light of the experience accumulated during the various stages of preparation.[43]

Lutkowski recommends that the Polish government adopt a cautious approach to the EMU: Poland should not enter into too rigorous commitments prematurely. However, joining ERM II would be of use to Poland, as the country could retain a certain degree of licence with respect to its economic policy and, more specifically, its exchange rate policy. None the less, membership in ERM II would serve as an anchor for the Polish economic policy and help to preserve the course of stability. This kind of external pressure is all the more important, as Poland no longer needs financial support from the IMF. Furthermore, in the absence of the rigorous supervision exerted by that organization, the temptation to

[43] Kawecka-Wyrzykowska (1998/b) p. 25.

abandon the path of sound economic policy is growing. Membership in ERM II would increase the credibility of Poland's economic policy.

Oreziak is more circumspect and cautions the Polish government against joining the ERM II at too early a juncture. The obligation to remove all restrictions on capital flows is a direct outcome of the EU acquis communautaire. The positive effects of liberalizing capital movements in terms of resource allocation and economic discipline are well known. Nevertheless, premature full-scale liberalization of capital flows may be risky as it may lead to a destabilizing outflow of capital. Only once capital flows have been fully liberalized will it be possible to assess the ability of the Polish economy to function under conditions where freedom to use the exchange rate as an instrument of economic policy is restricted. Moreover, if only the full convertibility of the zloty is ensured by removing any remaining currency limitations, will it be possible to set an optimal exchange rate for the zloty in relation to foreign currencies.

As for the decision when to join the ERM II, the question of setting the optimal level for the official zloty exchange rate is of vital importance. That exchange rate would be the point of reference for the stabilization of the market exchange rate. The earlier the Polish zloty is fixed in the ERM II, the higher the risk of inappropriate exchange rate level. A decision taken too early in this matter could result in setting a rate which would not reflect economic reality properly. The result might be a negative impact on the competitiveness of Polish products in international markets. The wrong official exchange rate might also result in speculative capital flows. At the same time, frequent adjustments to the central exchange rate would be difficult as they would impair the credibility of the system.

A Hungarian researcher, Fölsz (1998)[44] has tried to determine which countries might derive most advantage from joining the EMU. After reviewing the international literature on the topic he concludes first that joining the EMU yields benefits primarily for small open economies where the independence of the exchange rate policy is very limited in any case, since devaluation essentially affects domestic price levels and not production. Secondly, the less rigid the price and wage response to changing circumstances, the greater the benefit to a country on joining the EMU. Finally, the greater the difficulties a government has in curbing inflation via its own policy, the higher the gains via the import of stability and credibility from the monetary union. Based on these considerations, Hungary is typically a country which stands to gain much from joining the EMU. He concludes that from the standpoint of costs and benefits of membership in the EMU alone, Hungary should join as soon as possible. He immediately adds that this approach lacks adequate differentiation.

[44] Fölsz, A. (1998) *A monetáris unió és Magyarország (The monetary union and Hungary)* Közgazdasági Szemle 10/1998, pp. 923-939.

For Hungary the real costs are not associated through membership in the EMU but to fulfilment of the Maastricht criteria. Hungary must continue along its path to sustainable growth, preserve the stability it has achieved so far, reduce inflation and increase the competitiveness of the business sector. According to Fölsz, if priority is given to early fulfilment of the Maastricht criteria, these targets may not be attained. Stabilizing a fixed nominal exchange rate can only be achieved if inflation is reduced to 2-3%. In Hungary, the exchange rate policy cannot be the main anti-inflationary tool as long as balance of payments considerations have to take priority. Inflation cannot be decreased rapidly without jeopardizing economic growth and political stability; this applies to fiscal policy, as well. Accession to the EU is better supported by sustainable growth and increasing productivity than by entering a race for early fulfilment of the Maastricht criteria .

Fölsz proposes that Hungary join ERM II. This would ensure a more flexible exchange rate policy than at present. Deviation from parity could then be +/- 15% compared to the +/- 2.25 under the present system. This change, however, contrary to a possible interpretation of the same change made by an autonomous decision in Hungary, would not convey the message that the Hungarian monetary authorities had given up or relaxed the anti-inflationary policy. The Hungarian researcher points out that the prevailing rules would not permit any country to become a member of the ERM II unless it was simultaneously a member of the EU. The EU should revise this decision and allow the applicant countries to join ERM II. They could then rely on intervention by the European monetary authorities in the event of speculative attacks on their currencies. A unilateral linkage of the eastern applicant countries' currencies with the euro and informal membership in the EMR II is also possible. The basic problem in this solution is that speculative risk would be much higher since intervention by the European Central Bank (ECB) in a crisis situation would not be guaranteed.

In Slovenia considerations for joining the EMU or EMR II have taken on a special flavour as the present Slovene foreign exchange rate regime is the complete opposite to the EMS fixed foreign exchange rate requirements. The author of the country report on Slovenia stresses that under the given circumstances (high inflation and low international reserves) a (managed) floating exchange rate system was the only feasible alternative for Slovenia.

In Slovenia, the perception of costs associated with joining the EMU is similar to that in Poland, the Czech Republic and Hungary. Slovenia would have to give up its monetary sovereignty and hand over its autonomous monetary policy to a single European central bank with only symbolic Slovene influence over the latter's operations. The loss of the exchange rate as an instrument for adjusting its balance of payments would make Slovenia more vulnerable to asymmetric shocks, and its balance-of-payments adjustment process would become less flexible and more costly. This adjustment would be either through financing from the rest of the EMU (from a central budget or private capital sources) or

through alternative mechanisms such as the flexibility of real wages or migration of labour. If these alternative adjustment mechanisms cannot function efficiently, the response to an asymmetric shock might be a fall in GDP and/or an increase in the rate of unemployment; this should be regarded as a main potential cost arising out of Slovenia's inclusion in the EU.

The main advantages accruing to Slovenia through participation in the EMU are to be seen in exchange rate stability (greater certainty and lower costs), increased trade with the EU, lower trade costs and broader access to the EU market for Slovene exports.

The country reports on Poland, Hungary and Czech Republic made no attempt to measure the costs and benefits of joining the EMU. In the country report on Slovenia two projects, the one involving Slovenia[45] and the other involving Slovenia and other EU applicant countries,[46] were presented.

IV.3.2 The optimum currency area

The starting point in the paper by De Grauwe and Aksoy was the theory of optimum currency areas (OCA) which analyses the conditions that countries should satisfy if they want to derive positive net benefits from joining a monetary union. When countries differ in terms of economic structures, they are likely to face 'asymmetric shocks'. In the absence of exchange rate instruments, they will require great flexibility in their labour markets to adjust to those asymmetric shocks and so avoid permanent unemployment.

The conventional view of the dynamics of monetary integration can be presented graphically. On the vertical axis the degree of divergent movements of output and employment between a particular country in Central and Eastern Europe and the EU is set out. On the horizontal axis a measure of the degree of trade integration between these countries is set out. The relationship between these two measures is represented by the line sloping downwards (TT). As trade integration between the CEEC and the EU increases (growth in the intra-industry specialization) the degree of economic divergence declines, countries grow increasingly similar and face fewer asymmetric shocks. (See Figure 1 below.)

The combination of divergence and trade integration that equalizes cost and benefits of joining a monetary union is represented with the upward sloping OCA line – an increase in

[45] Gros, D. , Vandille G. (1995) *Slovene and European Trade Structures*, paper prepared for the ACE research project 'Monetary Integration and Disintegration in Europe: the Case of Slovenia', Institute for Economic Research, Ljubljana.

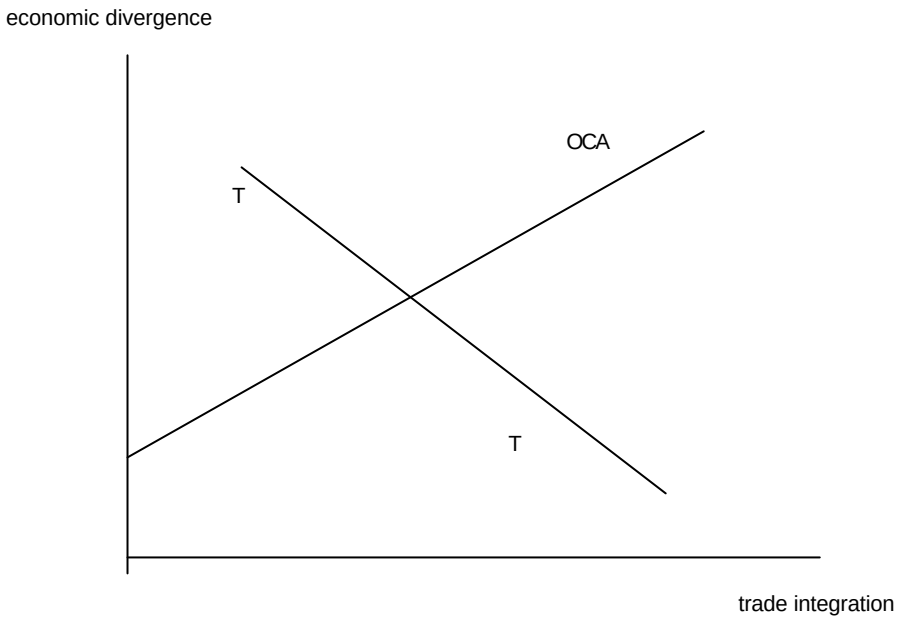
[46] De Grauwe, P. , Aksoy, Y. (1997) *Are Central European Countries Part of the European Optimum Currency Area?* paper presented at the ACE workshop, Ljubljana as a part of the PHARE-ACE research project 'Inclusion of the Central European Countries in the European Monetary Integration Process'.

economic divergence makes monetary union more costly, but it can be offset by increasing economic integration. All points in the OCA line are thus combinations of divergence and integration with the zero net gain of monetary union.

The authors put the typical CEEC on the downward sloping TT line to the left of the OCA line. They assumed that the country in question was not yet part of the European optimum currency area, basically because the degree of economic divergence was still too high and/or the degree of trade integration too low. They undertook an empirical analysis to check whether their hypothesis was right. Given the long-term prospects of monetary union for the CEEC it can be concluded that with progressive trade integration the country will move downwards along the TT line – inevitably reaching the OCA zone. Were the country to introduce policies assuring greater labour market flexibility (an upward shift in the OCA line) the positive net gain factor of monetary union would speed up.[47]

Figure 1

Conventional view of monetary integration



Source: De Grauwe and Aksoy (1997), as cited in the Country report on Slovenia (without the 'Krugman view').

The theory of optimum currency areas has identified three sets of factors that count when determining whether a country in Central and Eastern Europe would benefit from monetary union: a) the degree of integration in trade between the CEEC and the EU, and its likely future development; b) the size and the frequency of asymmetric shocks to which the

[47] An alternative view can be derived from the Krugman's analysis of the effects of economic integration on the occurrence of asymmetric shocks. For details see Country Report: Slovenia (Majcen 1999).

country is likely to be subjected (in this context the different economic and industrial structure of the CEEC versus the EU countries is implied); and c) the degree of labour market flexibility in the CEEC.

It is important to mention that the authors addressed, albeit indirectly, the present position of a particular CEEC in relation to the OCA zone. They focused their attention on the nature of the asymmetric shocks in the CEEC using a panel data model which allowed them to determine the extent to which the growth rates of output and employment in a particular CEEC differ from those observed in the EU. For want of a sufficiently long data series for the CEEC, the procedure used did not attempt to separate demand (conditioned by the nature of the monetary regime) from supply shocks (which will not disappear in a monetary union).

The model used aimed at distinguishing between the common (i.e. international) and country-specific sources of shocks in output and employment.[48] The project findings suggest that some CEECs may be located on the right hand side of the OCA line; they thus belong to the optimal currency area and joining the EMU would be beneficial for them. Of the CEECs analysed, Slovenia was the best candidate in this regard. Nevertheless, the author of the country report on Slovenia points to some relevant shortcomings in the model. Among the three factors that count in determining the net effects of monetary union as identified in the OCA theory, the authors focused solely on the size and frequency of asymmetric shocks through the analysis of the extent of the differences in growth rates of employment and output between the CEECs and the EU. They made no attempt to measure the degree of trade integration or the flexibility of labour markets. Furthermore, the authors were conscious of the fact that they could not separate demand from supply shocks and that they were using a rather short time-period. The authors themselves cautioned that the results could only provide the CEEC with some approximate idea of the costs and benefits of monetary union and pointed out that considerable uncertainty still remained as to whether the CEECs already belong to the European optimal currency area.

The other quantitative approach to measuring the costs and benefits of joining the EMU (Gros and Vandille 1995) compared trade structures using correlation coefficients and revealed comparative advantage indicators. It then constructed a net benefit indicator in order to compare benefit/cost ratios internationally.

The structure of intra-EU trade was compared (at the SITC 2-digit level) to trade between Slovenia (and other CEECs) and the EU, using the values of the correlation coefficients. The underlying hypothesis was that countries with similar trade structures are natural candidates for integration leading eventually to economic and monetary union. Differences

[48] For further details of the model see the Country Report: Slovenia (Majcen 1999)or the original publication.

in economic structures indicate the likelihood of country-specific shocks for which the exchange rate would be a useful adjustment instrument, but that instrument is lost once a country joins EMU. Additionally, the authors tried to establish what determined trade structure similarities or differences. They drew up two revealed comparative advantage indicators: the net exports/total trade index and the export specialization index. In the final sections, they compared the expected costs and benefits of closer integration with the EU.

As a measure of the benefits they took the importance the individual countries attached to trade with the EU. The indicator was calculated as (exports+imports)/2 as a percentage of GDP. Closer integration makes trade less costly. Therefore, countries which trade intensively with the EU can be expected to gain more. As a measure of the costs of closer integration, they used the difference in trade structure with the average EU trade structure. It was calculated as (the export correlation coefficient with the EU -1) *100, weighted by the ratio of exports to the EU and GDP. Closer integration requires a trade structure more or less similar to the EU average, because otherwise asymmetric shocks can strike the member countries through their different trade structures. The greater the difference at this juncture, the higher the adjustment costs will be. Finally, after normalizing both measures by setting the maximum value of both benefits and costs equal to 100, the authors calculated the ratio of normalized benefits over normalized costs. The ratio should be interpreted solely in relation to other countries and not as an absolute indicator.

In order to establish a benchmark trade structure, the authors calculated a complete matrix of correlation coefficients between the EU and member countries, as well as between the individual countries themselves. The countries with a trade structure most similar to the EU average were Germany, France, the Belgium and Luxembourg, the United Kingdom, and Spain with bilateral coefficients above 60%.

The results of calculations show that Slovene trade structure is not all that different from the average intra-EU trade structure and Slovenia ranked top among the CEECs in this respect. The Slovene trade structure was even more strongly correlated with the trade structure of Italy and Portugal.

In his evaluation of this project the author of the country report on Slovenia compared the results of the two quantitative approaches reviewed above. On the one hand, De Grauwe and Aksoy proposed a measure of economic divergence: 1 – correlation coefficient between the output growth rates of those countries. On the other hand, Gros and Vandille measured costs as a difference between the country's trade structure and the average EU trade structure: the export correlation coefficient with the EU -1)*100, weighted by the ratio of exports to the EU and GDP. As for the degree of economic integration, De Grauwe and Aksoy proposed the same measure as that used by Gros and Vandille to explain the benefits of closer integration. Using the benefit:cost ratio, Gros and Vandille estimated the

relative position of a particular country on the TT-line by mainly using trade data. The author of the country report on Slovenia cautions that despite the correct notion that the benefit:cost ratio should be interpreted exclusively as a measure of a particular country's relative position in the group of countries observed, the authors also used the ratio as an absolute measure of net gains in the EMU.

In both projects the authors focused their analysis on the first two of three sets of factors identified in the theory of optimum currency areas that are of significance when determining whether a country stands to benefit from monetary union. For the second set (size and frequency of asymmetric shocks) they used (different) trade structures for a particular year implicitly assuming that they also represented differences in economic and industrial structure. They did not try to calculate the ratios for different years nor the differences in the changes of the variables used. The problems mentioned here notwithstanding, these projects constitute the only attempts so far to quantify the costs and benefits accruing the eastern applicant countries on joining the EMU.

The author of the country report on Slovenia attached importance to the fact that despite all the problems associated with the data, the results of both research papers suggested that of all the CEECs Slovenia might be located closest to the OCA-line.

IV.3.3 Conclusions

As mentioned above, theoretically speaking, small open economies with flexible labour markets and output and trade structures similar to those of a major economic bloc are excellent candidates for membership in a monetary union with that bloc. In recent years the four countries' exports to the EU have rapidly increased. Though not yet captured in the quantitative analyses presented above, trade expansion has been coupled with an increasingly similar export structure between individual countries and the EU. Relying on these requirements alone, gains for the four countries concerned should gain considerably from EMU membership.[49]

That notwithstanding, the experts in the four countries have adopted a realistic and cautious approach to the prospects of joining the EMU. Fear of losing sovereignty in terms of economic policy has obviously nothing to do with some kind of economic nationalism. It is clear that in the long term the countries concerned intend to join the EMU; loss of economic policy sovereignty is thus only a matter of time. The main concern is the proper timing of the steps which, ultimately, end with full membership in the EMU many years ahead. It is also obvious that each important step on the road towards EMU is irrevocable or can only be revoked at prohibitive costs; any decisions on that score must thus be made

[49] With the limitation that Poland's economy cannot be regarded a 'small'.

very carefully. The general perception is that transition has by no means been completed. Rapid changes in output structure and property relations as well as relatively high inflation do not allow the countries to forgo their independent exchange rate policy, even if this entails the risk of potential abuse of this possibility. Examples from the recent past (Hungary 1993-1994, Czech Republic 1997) provide cautionary examples of what happens if exchange rates in a country do not correspond to the requirements of maintaining an economy's external equilibrium.

An important lesson has been learnt from episodes in relations between the IMF and some transition countries and in some instances, in other sectors of the global economy. Theoretically well-founded prescriptions 'from outside' do not necessarily provide the optimal solution to problems emerging in critical situations in transition countries. That may have strengthened the experts' cautious attitude towards early abandonment of manoeuvring space on the national economic policy front.

Admittedly, membership in the EMU cannot be anything but a remote target for the countries concerned. Practical considerations apply on joining ERM II, which of itself deprives national monetary authorities of most of their independence in exchange rate policy. Even if exchange rates are allowed to move within a much wider band in EMR II than in either Poland or Hungary, an uncomfortable feeling would prevail for want of knowledge about the national currency's proper exchange rate. This feeling would prevail for years, right up to their joining the EMU. Despite the successful start to monetary on 1 January 1999, an enthusiastic attitude towards joining ERM II has not been unbounded.

In the ultimate analysis, the EMU itself still has to prove that as EMU members, relatively less developed participants are not exposed to asymmetric shocks or should such shocks occur, they can be successfully handled by the country concerned and the ECB, respectively. Lessons to be learnt from the first years of EMU operation may fundamentally influence the perception in the four countries concerned of the costs and benefits accruing from joining ERM II and, at a later stage, the EMU.

IV.4 Agriculture

IV.4.1 Capturing the impact

While the history of the European Union can generally be described as an history of steps towards liberalizing transactions among economic agents in the countries participating, agriculture is an exemption to this general rule. In agriculture, the regulation of prices and output as well as continued protection of incumbent farmers from the rest of the world have been a fundamental characteristic of the integration process. Despite forthcoming reforms,

it will remain so. This makes the calculation of accession costs and benefits in the agricultural sector extremely difficult, yet extremely important.

Researchers conducting cost-benefit analyses of EU accession in the agricultural sector have to cope with the intricacies of the issue. They have to attempt to capture the impact of accession on:

- Prices of:
  Arable land,
  Agricultural inputs
  Broadest possible scope of agricultural products,
  Broadest possible scope of food-industry products
- Social and economic impact of :
  Consumer price changes (food)
  Relative price changes (agriculture/food vs. industry and services)
  Changing nominal and real incomes in agriculture and the economy as a whole
- Quantities (likely permissible) produced by the most important product groups in:
  Country concerned
  'Old' members of the EU
  New members
- Changes in output structure
- Changes in export and import structures of agric ultural and food industry products
- Development of trade balance in agro-food products
- Development of agricultural productivity
- Change in competitive position of:
  Suppliers to the domestic market
  Exporters
- Impact of changes in subsidies from national sources (in terms of conditionality and value)
- Effect of reforms in the wake of:
  The Uruguay Round/WTO
  CAP (alternative scenarios)
- Impact of transitory post-accession regulations (various scenarios) that favour:
  'Old' incumbents
  New members
- Budgetary impact of various scenarios on compensatory payments and other transfers

IV.4.2 Quantitative approaches to assessing impact

European simulation model

It is no wonder that in each of the four countries researchers specialized in analysing the impact of EU accession in the agricultural sector took recourse to modelling. One of the models applied was the ESIM model (European simulation model) developed by Professor Tangermann and Josing and their co-workers for the Economic Research Service of the United States Department of Agriculture.[50] ESIM is a partial equilibrium model. This means that in individual agricultural markets equilibrium is obtained by finding a world market clearing price. The differential between domestic and world prices depends on the agricultural and trade policy instruments applied. Therefore, price policy and border measures restrict the movement of domestic prices. Both producers and consumers function under conditions imposed by agricultural policy. Supply, like consumer demand and the demands for foodstuffs, responds to changes in productivity and income, but primarily to price changes. ESIM features a general structure of cross price elasticities relating primarily to production and foodstuff demand, thus allowing analysis of substitution effects. The results of the model are sensitive, first and foremost, to such variables as assumed productivity growth, exchange rates and real income growth.

ESIM facilitates quantitative studies (based on demand and supply analysis). It permits simulation of agricultural policy scenarios world-wide, broken down into country blocs, including EFTA, the EU, Poland, Czech Republic, Hungary, Slovakia and the United States. The remaining countries have been divided into three groups: former centrally planned economies; other industrial countries; and developing countries. The agricultural sector in individual countries has been disaggregated to 26 agricultural and food products; these are mostly agricultural raw materials and a number of processed products.

Since world prices are endogenous to the model, each change in agricultural or trade policy instruments affects world prices. The bigger the country (with a larger potential and market), the greater the impact on world market prices exerted by its internal policies. Thus, the general price policy rules adopted by the EU have a greater effect on world market prices than, for example, the price policy pursued by Switzerland, although the latter also has an impact (which is accounted for in the model).

Of the projects reviewed in the country reports, two were based on ESIM. In Poland the model was set up and the results were published.[51]

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[50] The following description of the ESIM is drawn from the text in the Country Report: Poland (Kawecka 1998/b), pp. 27-28.

[51] Piskorz,W. , Plewa, J. (1996) *Scenarios for Integration of Polish Agriculture with the European Union (on the basis of simulations)* Foundation of Assistance Programmes for Agriculture, Warsaw October 1996.

Within the framework of a major research project in Hungary[52] an ESIM model will also be computed.

Computable general equilibrium models

The other main thrust in quantitative analyses of accession-related costs and benefits has been in the direction of computable general equilibrium (CGE) models.[53] The basic assumption in CGE type models is that the long-term development trends in an economy depend on constant adjustments to demand and supply. Adjustments are conditioned upon changes in the pattern of prices, informing consumers about the cost of producing individual products and services and persuading producers to adjust their resource allocation according to the consumer preferences. Equilibrium is reached when there is:

– Freedom of change in price levels (of both products and resources);
– Rational consumer behaviour, maximizing consumer utility and the behaviour of producers who tend to maximize profits;
– Mobility of factors of production among economic sectors.

Any government's intervention in the economy (through taxes, tariffs or public procurement) changes the profitability of the production of goods and services; it thus leads to different patterns of equilibrium as well as different patterns of economic growth.

In Poland, a model called POLAGR based on a CGE model was elaborated.[54] The specific assumptions of the POLAGR model, which takes into account the particular situation prevailing in the Polish agricultural and food sectors, are the following:

– Limited mobility of certain factors of production. It was assumed that over the short term, employment in agriculture is immobile, i.e. the drop in farm incomes in relation to wages in other sectors of the economy does not lead to agricultural workers shifting swiftly to other sectors.
– Limited mobility of capital flows over the short term. Changes in capital stock are only achieved through new investments.

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[52] Halmai,P. and Pálovics, B. *Az EU-tagság agrárgazdasági hatásmechanizmusai. Tények és hipotézisek a hatáselemzéshez (The Agricultural Effect Mechanisms of EU-membership. Facts and Hypotheses to the Analysis of Effects)*, Budapest, 96 p. 1995 (mimeo) Publication based on this study with the same title in: Külgazdaság, 1997/2, pp. 46-67.

[53] The following description of the CGE models is drawn from the respective text in the Country Report: Poland, (Kawecka 1998/b) pp. 34-35.

[54] Orlowski, M.W. (1996/b) *Problemy sektorowe: Specjalny przypadek polityki rolnej (in) Droga do Europy. Makroekonomia wstepowania do Unii Europejskiej, (Sectoral Issues: Special Case of Agriculture) in: A Road to Europe. Macro-economics of Accession to the European Union*. Central Statistical Office, 'Studies and Working Papers' No. 234, Warsaw , 1996.

– Agricultural production does not react to current price changes, but is a function of previous price relations.

– In the case of eight agricultural products, it was assumed that their market prices were inflexible (contingent upon demand and supply) but were fixed by agricultural policy. If government policy does not support these price levels, they are equivalent to world prices; if agricultural policy sets prices above those on the world market, the model permits calculation the levels of both tariff (or other) protection and export subsidies.

These assumptions modify the original CGE model to a certain degree, yet they still allow for a general equilibrium approach.

In Slovenia, a research group developed a static deterministic net income model for Slovene agriculture coupled with a computable general equilibrium model (CGE model) of the Slovene economy.[55] The static deterministic net-income model was based on net-income calculations conducted for all staple agricultural products. Basically, these calculations define the level of production technology envisaged (intensity, productivity, type and amount of inputs used). Labour and capital costs are calculated as opportunity costs. Labour and capital costs, gross of taxes, are thus calculated in relation to a level comparable to the average of the Slovene economy (e.g., a net parity income). The level of net parity income computed in comparison to the net income realized shows the economic efficiency of production. Realized and parity net incomes were calculated using a method methodologically close to the calculation of the net value-added within national macro-economic calculations. When estimating the value of production and expenditure, all calculations were based on the assumption of the same physical volume of production (the average volume of Slovene production in the period 1993-95). This assumption meant that the model only provided estimates of how net income levels might change with varying input and output prices.

The Hungarian research project mentioned above (Halmai – Pálovics 1995) is partly based on CGE model computations, but the results have yet to be published.

Beyond the partial equilibrium and general equilibrium models presented above, other quantitative approaches were applied in the four countries concerned.

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[55] Research activities on the field of agriculture have been quite intensive and broad, including several research institutions. The calculations of the most exhaustive quantitative analysis concerning the accession into the EU was presented in Erjavec, E., Majcen, B. , Rednak M. (1997) *'The Effects of Inclusion of Slovenia into the International Integration on the Slovene Agriculture: Slovene Agriculture And the European Union'* , final report of the special research project within the Target Research Programme LAND (Agricultural and Rural Development). This three-year project, financed by the Ministry of Agriculture, Forestry and Food and the Ministry of Science and Technology, involved three research institutions and a number of researchers. In the course of the project many partial papers were written and published and several public conferences organized. The final version of the research was also published in book form: Erjavec, E., Rednak M., Volk T., (editors) *Slovene Agriculture and European Union* CZD Kmecki glas, Ljubljana1997.

Optimization models

In Poland an optimization model known as NOBE-AGR2000 was designed specifically for the purpose of the study. It was developed as a tool for facilitating the implementation of an appropriate agricultural policy in Poland. This newly designed policy should be consistent and effective: preferably inexpensive, it should permit the painless adoption of CAP at some future.[56] The model allows for the simulation of costs and results that come about after applying various sets of agricultural policy instruments as a basis for selecting the optimal scenario.

Based on assumptions on long-term economic growth (GDP and personal incomes) the model describes the changes in demand for different groups of agricultural products, distinguishing between products of domestic and foreign origin. The assumption applied was that consumers' final decisions are based on the principle of economic rationale (maximum satisfaction at possibly minimal costs). This means that consumers' decisions are determined primarily by prices. Prices of agricultural products depend mainly on the degree of agricultural intervention (purchases, levies, direct payments to farms, domestic subsidies, export subsidies etc.). The given level of demand for agricultural products and price levels permit the estimation of income levels in the agricultural sector.

Optimization models were also used in the Czech Republic.[57] One model, AGRO-1, was developed in the Research Institute of Agriculture Economics over the period 1994-96. It offers the opportunity to model agricultural supply depending on exogenously defined demand for final agricultural raw materials. The model permits computation of cost minimization and profit maximization on the basis of average market prices for agricultural raw materials. A second model, AGRO-2, developed in 1997 represents an extension of AGRO-1, by simulating the impact on agricultural policies exerted by exports and imports. In order to assess the demand for food, a third model known as FRISCH was used.

Other approaches

Another project in Poland – a joint undertaking involving Polish and German researchers – applied a composite method to analyse the present and future competitiveness of Polish agriculture.[58] The competitiveness of agricultural and agri-food products in Poland was

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[56] Czyzewski, A.B., Orlowski, M. W. (1993) *Model symulacyjny polskiej polityki rolnej (Simulation model of Polish agricultural policy)* Office for European Integration and Foreign Assistance at the Office of the Council of Ministers, Warsaw, 1993.

[57] Predpokládané dopady vstupu Ceské republiky do Evropské unie na ceské zemedelství.(The envisaged impacts of joining the EU on the Czech agriculture) Research Institute of Agricultural Economics in Prague, December 1997

[58] Polska. Analiza konkurencyjnosci i komplementarnosci rolnictwa i gospodarki zywnosciowej na tle EW/UE w okresie 1990-1995 oraz prognoza dla roku 2002. Raport koncowy. Poland. Analysis of Polish Agriculture and Food Economy Competitiveness and Complementarity in regard to EEC/EU in 1990-1995 and the Forecast until 2002. Final Report. A joint research (PHARE Project) headed by S. Tangermann, S. and Muench, W. (mimeo) 1997.

assessed on the basis of price comparisons, trade flow analyses (revealed comparative advantage, i.e. RCA indicator), domestic resource cost calculations and a business survey.

The list of products examined varied from case to case, depending on data availability. A core group of products, however, was included in all parts of the analysis. Several assumptions were made on a number of factors, in particular the future development of factor prices and productivity in Poland, future changes in the exchange rate of the zloty vis-à-vis EU currencies (DM), and future policies and prices in the EU. It was assumed that in Poland wages as well as prices of services and other inputs would continue to increase in real terms in relation to the growth rates assumed. As far as productivity is concerned, it was assumed that technologies would not change in future. As for the exchange rate, two alternative assumptions were made: a constant real exchange rate and a real appreciation of the zloty against the DM by 30% over the period 1995-2002.

As far as future EU policies and prices are concerned, two alternative assumptions were explored. The first alternative assumes a modest reform of the CAP, with slight declines in prices in real terms. The second alternative assumes a more fundamental reform of the CAP prior to eastern enlargement, in particular a reduction in the level of price support for sugar beet and milk very similar to the way in which cereal support prices were previously reduced under the MacSharry reform. Those two alternatives reflect the possible scope of future reform.

The first part of the Hungarian research project already published (Halmai – Pálovics 1995) contains a static analysis. The core of the analysis was elaborated in 1994-95, since when it has been updated and further improvements carried out. In the course of research the price conditions of 12 selected products (within three highly aggregated product groups) were compared. The analysis concentrated on: the difference between production prices in Hungary and the Community; and the magnitude of support for Hungarian agricultural production, had Hungary been member of the EU at the beginning of 1990s (1991-1992) and no transition measures applied. In a second step, an initial comparison was made of prices based on the new data available (1994-96), whereafter the CAP reform measures introduced in 1992 were examined. In both stages, French agricultural prices were selected as reference prices for the model.

IV.4.3 The 'moving target' approach

The regulation of agricultural production and trade has been subject to reform endeavours for years. None the less, given the resistance to reform among powerful farmer lobbies in the EU, changes have been slow, and the outcome of reforms and the future of the CAP or its successor are unpredictable. However, as these reforms will decisively influence both

the costs and benefits accruing to the new entrants, researchers cannot avoid confrontation with this uncertainty.

The solution might be the application of a 'moving target' approach, elaborating scenarios for various outcomes of agricultural reforms in the EU.

Piskorz and Plewa (1996) took three basic scenarios into account in their model for Poland: the first base scenario that assumed no integration and no changes in domestic agricultural policy was treated as a reference point. Two further accession scenarios were elaborated: the first assumed accession to the EU in 2000 with price adjustments beginning in 1997 and the second assumed accession in 2005 with price adjustments beginning in 2000. The latter scenario may also be interpreted as EU membership in 2000 with a 6-year transition period. The various integration scenarios were based on a common assumption relating to the CAP and its evolution. Intervention (support) prices and other CAP regulations under the MacSharry reform (the end of the reform, i.e. 1996) were introduced into the model. For the 1996-2005 period it was assumed that both regulated prices and compensatory payments would be phased out at the rate of 1 % annually in real terms, whereas other regulations, such as the level of production set aside, would remain unchanged.

Orlowski (1996/b) relies on three scenarios in his attempt to assess the budgetary impact of Poland's joining the CAP. The first two scenarios assume rapid entry into the CAP. In the first scenario, a policy of price level support would be applied bringing about a rapid increase in domestic prices in order to reach EU price levels (in 5-10 years), with all the budgetary implications. In the second scenario, price support would be coupled with the application of production quotas. Here, the rapid price increases, linked to control over the quantity of output, would allow the related budgetary expenditures to be kept under control. Production in excess of the quotas would be penalized by fiscal measures. In the third scenario, productivity increase came into focus. Here, price support would be introduced gradually over a 15-20 year period, in order to allow for a forced selection process where 'only the strongest survive'. This scenario calls for a long transition period for Polish agriculture.

Czyzewski and Orlowski (1993) elaborated six scenarios to estimate the effects of alternative agriculture policies on the levels of production, protection and stabilization of agricultural incomes, as well as to estimate the costs to be borne by consumers or the State budget (and indirectly, by non-agricultural sectors of the economy).

In the joint research project conducted by Polish and German researchers (Polska. Analiza...1997), several assumptions were made on a number of factors, in particular the future development of factor prices and productivity in Poland, future changes in the

exchange rate of the zloty vis-à-vis the EU currencies (DM), and future policies and prices in the EU. As far as productivity is concerned, it was assumed that technologies would not change in future. As for the exchange rate, two alternative assumptions were made: a constant real exchange rate and a real appreciation of the zloty against the DM by 30% over the period 1995-2002 period. As far as future EU policies and prices are concerned, two alternative assumptions were explored. The first alternative assumes a modest reform of the CAP, with slight declines in prices in real terms. The second alternative assumes a more fundamental reform of the CAP prior to eastern enlargement, in particular a reduction in the level of price support for sugar beet and milk very similar to the way in which cereal support prices were previously reduced under the MacSharry reform. Those two alternatives reflect the possible scope of future reform.

Possible market prices were derived from the policy developments assumed. These market price projections until 2002 were based on calculations carried out by the agricultural sector model, which was elaborated by the contributors to the study discussed above. A key assumption in respect of future market regimes was that similar to the MacSharry approach for cereals, the trade and price policy instruments already applied remain in effect and only vary in intensity, i.e. institutional prices and payments between 1997 and 2002 would be reduced, but not abolished. In the moderate reform, a decrease of 20% in institutional prices and payments over the period 1997-2002 were assumed. These price movements concerned real prices, relative to the development of input prices for agriculture. For the MacSharry approach, it was assumed that institutional prices would drop by 30% for highly protected products in the EU over the same period.

In order to take into consideration the possible range of changes in the CAP and their effects on Slovene agriculture, Erjavec, Majcen and Rednak (1997) in Slovenia drew up three scenarios: A, B and W. Two alternatives were included in each of the scenarios A and B, allowing for the possibility that new members might not obtain compensatory payments. All estimates in the scenarios were calculated for individual agricultural products and were related to producer prices, direct budget supports, costs and – as a new derived category – net incomes. The scenarios were compared to an estimate of the situation in Slovene agriculture for the period 1992-1995. Key elements of the individual scenarios are briefly described below:

– Scenario A1 is based on the hypothesis that CAP in its present form will be fully accepted (market organizations, together with compensatory payments and structural policy measures).

– Scenario A2 as in A1, but with the assumption that new members will not be entitled to compensatory payments introduced by the EU in the 1992 reforms.

– Scenario B1 simulates modest CAP reforms oriented towards a liberalization of agricultural policy on the basis of the 1992 reforms. The effects of liberalization (lower foreign trade protectionism and lower export refunds) will result in price reductions.
– Scenario B2 as B1 but again with the assumption that new members will not be entitled to compensatory payments introduced by the EU in the 1992 reforms.
– Scenario W addresses the most far-reaching possible changes in agricultural policy (complete liberalization). Under this scenario, all foreign trade protectionism measures would be abolished, prices would drop to world price-levels and the EU would dismantle all its budgetary support.

Authors of the Czech project (Predpokládané... 1997) assumed that the Czech Republic would accede to the EU in 2005. At the same time, Czech agriculture would take over all the regulations stemming from the Common Agricultural Policy.

The analysis of costs and benefits was based on two scenarios developed for the period 1999-2004. These scenarios represent rather extreme cases which thus delineate the extent of probable developments. Both scenarios have the following common features:

– Identical agriculture policy until 1998 according to the approved budget;
– Privatization of 500 000 acres of State-owned land by the end of 1998 and ownership transferred to Czech citizens;
– Protection of the agricultural market within the scope of obligations towards WTO
– Reimbursement of economic costs in protected areas;
– Identical support for services (research, information, consultancy, education, genetics);
– Write-off of 50 % of transformation debts, amounting to approximately CZK 20 billion;

Scenario A assumes that efforts will be made to minimize the negative impacts of changes in ownership and economic reform through the rapid implementation (possibly in 1999) of the CAP principles and mechanisms with a level of support comparable to that in the EU. From this point of view, the producer subsidy equivalent (PSE) is envisaged to reach approximately 30 % prior to accession.

Scenario B is based on the assumption that the policy target will be an increase in the competitiveness of the Czech agriculture sector on the one hand and convergence towards the conditions in the EU on the other, insofar as the functions, environmental protection, maintenance of the landscape and development of rural areas are concerned. No market regulation measures (with the exception of customs measures) would be implemented and only structural support applied. The level of producer subsidy equivalent

should reach approx. 18 % prior to the year of accession. Implementation of the principles and mechanisms of EU market regulation is envisaged solely for the year of accession.

IV.4.4 The results

Czech Republic

The authors of the Czech project (Predpokládané... 1997) drew two sets of conclusions: one qualitative and the other quantitative. The qualitative conclusions point to benefits accruing from accession: the Czech food industry will increase its competitiveness thanks to restructuring and co-operation with foreign capital; the introduction of European quality standards for Czech agro-food products will foster both domestic and foreign sales. The competitiveness of Czech firms using Czech agricultural products as their input will increase. The Czech firms involved will produce brands with high value-added, based on domestic raw materials and will supply the Central European region of the EU.

The quantitative results address the problem of budgetary impact. Whether EU accession yields more advantages than costs from the budgetary point of view depends basically on one factor: whether the Czech Republic receives compensatory payments or not. In the former case, accession yields net (budgetary) gains in the year of accession (assumed to be 2005) ranging between some ECU 0.39 billion and ECU 0.44 billion. Without compensatory payments, however, the net loss to the Czech budget would amount to ECU 0.88 billion.

From the results, it transpires that Czech farmers would benefit in both cases from accession. In the former case mostly from increased expenditures on the part of Czech consumers and the budget, in the latter case from EU transfers. The loss to consumers in the first year of membership would be considerable, equalling in both cases ECU 1.47 billion.

Hungary

The preliminary results of the Hungarian project (Halmai – Pálovics 1995) show the difference in prices for comparable groups of twelve agricultural commodities in France and Hungary in selected years.

If French price levels (some 70% higher) had been applied to the whole range of agricultural products, Hungarian farmers would have secured more than some HUF 500 billion additional revenue in 1995. As the 12 selected product groups also contain the products enjoying the most protection under the CAP, the authors found it likely that, in relation to the whole range of agricultural products, the price differences would have been

somewhat smaller. Allowing for this, they reckoned with a 60% price difference. Even in this case additional income would have amounted to over HUF 400 billion, corresponding to 150% of the total annual GDP produced by Hungarian agriculture in that year. Were the potential price increases bringing Hungarian prices for the agricultural products up to those in the EU to occur in one fell swoop in the year of accession, all other things being equal that alone would give rise to a 7-10% leap in inflation.

The estimated EU support for Hungarian agriculture was calculated on the basis of allocation conditions prevailing in 1996 and Hungarian output data for 1994: ECU 175 to 200 million for agricultural support, ECU 25 to 75 million for accompanying measures, ECU 150-200 million from structural programmes and a compensation premium of the order of ECU 800-900 million. The cumulative sum amounts to ECU 1,150 – 1,400 million. The researchers, however, caution that the support actually made available to Hungary will depend on future reform of the CAP and the outcome of the accession negotiations where compromises will have to be struck.

The authors made an attempt to summarize the various costs and benefits accruing from EU accession to the main actors in the economy in the field of agriculture, as follows:

For agricultural producers:

– Additional GDP, increase in wages
– Increase in wage costs
– Possibility of increase in taxation

For the budget:

– ECU 1-1.25 billion revenue from the EAGGF based on conditions of 1995 (this would exceed by far the Hungarian contribution to the EU budget); the amount would be used for agricultural market support related to CAP implementation
– Possible higher tax revenues from agricultural producers
– Increase in wage costs in the public sector and social services owing to higher food prices).

In the non-agricultural sector:

– Increased wage costs as a result of higher food prices
– Growth effect derived from increased agricultural demand

For the population in general:

– Increases in expenditure on food purchases owing to higher prices
– Increase in agricultural wages

The authors warn that some factors of key importance were not incorporated in the first stage of their research. These are: the changing nature of the price-cost ratio and its impact on the structure and volume of production, respectively, as well as on agricultural inputs; and the effects of a possible expansion in foreign trade in agricultural products. It is to be hoped that the forthcoming publication of the results stemming from the latest stage of the research will provide a more detailed and quantified estimation of costs and benefits accruing to Hungary.

Poland

In the non-integration scenario, the results obtained using the ESIM model (Piskorz and Plewa, 1996) predict that farm product prices in Poland will remain the same or drop. In both integration scenarios ((i) accession in 2000 with price adjustments beginning in 1997; and (ii) accession in 2005 with price adjustments beginning in 2000) radical price rises are predicted owing to the need for prices to reach the levels within the enlarged EU. The simulation predicted no substantial growth in agricultural output nor an essential change in the position of those products in Poland's foreign trade.

The authors reckoned with compensatory payments and export subsidies from the EU, amounting each year to ECU 1.5 billion and ECU 500 to 800 million, respectively. In both integration scenarios, they compare these revenues to the financial burden to be borne by consumers owing to higher prices. This burden amounts to about ECU 3 billion: i.e. greater than the sum of the two EU resource transfers to Polish agriculture mentioned above. Nevertheless, the author of the country report on Poland warns that the model did not take into consideration all the important items related to potential transfers to agriculture. In any event, both integration scenarios which provide for agricultural price adjustments prior to joining the EU, entail enormous burdens for the Polish budget in terms of payments to farmers, as well as higher food prices for consumers, without simultaneous access to payments from the EU budget. Both scenarios will, in effect, generate similar price and output levels; the scenario for integration at a later date will result in slightly lower agricultural prices (as a consequence of the drop in price levels within the EU that has been assumed).

Finally, Piskorz and Plewa recommended a solution that may alleviate fears related to the costs of Poland's accession in the field of agriculture. This is rapid accession preceded, however, by a long transition period of several years to allow for adjustment. In this case, a considerable part of the adjustment costs would be covered by the EU budget. None the less, with this solution, Polish consumers will assume part of the costs of joining the CAP as they will have to pay higher prices for food.

The author of the POLAGR computable general equilibrium model (Orlowski 1996) applies a distinctly unconventional approach to costs and benefits. In his perception, transfers from

the CAP would be of disadvantage to Poland and would not represent any gains. Relying on the experience of three EU member states (Greece, Spain and Portugal), the author argues that transfers within the CAP mechanism have a negative effect on restructuring in the agricultural sectors, i.e. the higher the transfers (in proportion to the value-added in agriculture), the lower the pace of employment reduction. Poland's path to a more effective and efficient agriculture incurs reducing the agricultural labour force and increasing productivity on the farms remaining. The reduction of agricultural overemployment is the main structural problem of Polish agriculture. Polish farmers would benefit from joining the CAP only if the effectiveness of Polish agriculture were much higher than at present. The crucial issue in Polish agricultural policy is one of rapidly increasing the effectiveness in the agricultural sector in the period leading up to entry into the CAP.

As mentioned earlier, the author worked with three scenarios. The first two counted on a rapid increase in Polish agricultural output prices; they would attain EU levels even before accession. The third scenario is based on a 15-20 year transition period and a slow increase in prices. The last scenario corresponds to the need to increase productivity in the sector rapidly as it supports rapid structural change. The first two scenarios involve massive budgetary expenditures in the pre-accession period; in the case of the third scenario, however, expenditure would be moderate.

Orlowski points out the negative macro-economic effects of the first two scenarios: distortions in the allocation of resources, negative impact on savings and domestic investment, and hence on long-term economic growth. The third scenario would entail a positive macro-economic effect, GDP growth accelerating by 0.2% per year.

The author also sees a potential danger in transfers from the CAP from another standpoint. Transfers to Poland within the CAP framework (1-2% of GDP in the author's estimation) would lead to the zloty appreciating and the competitiveness of domestic production decreasing, thus leading to an increase in the trade deficit and current account balance (excluding official transfers). This means that whereas the cost of transfers would formally be borne by the EU budget, they would in practice be absorbed by Polish consumers (increased food prices) and producers (reduction of product competitiveness and a drop in exports).

In conclusion, Orlowski opines that supporting agricultural product prices, either before or after accession, should be kept as low as possible. Financial support should be concentrated on developing the agricultural environment and creating new jobs. The transitional period prior to full acceptance of the CAP would depend on changes in the common agricultural policy. Liberalizing the CAP would help Poland to accept the rules laid down in that policy. The solution could lie in Poland making unconventional use of

agriculture-related transfers, primarily for productive investments that allow the absorption of people leaving the agricultural sector.

Commenting on Orlowski's work, the author of the country report on Poland, remarks that his opinion is rarely shared by other experts in Poland. Orlowski's liberal approach to solving the problems of Polish agriculture sounds very rational in economic terms, but may be both socially and politically costly. There is no guarantee that his assumption about creating an adequate number of new jobs to secure employment for farmers made redundant can in fact be realized.

The Polish and German authors (Polska. Analiza... 1997), who applied a composite method to assess competitiveness in the Polish agricultural sector under conditions of full membership, came to the conclusion that by the year 2000, given a constant real exchange rate for the zloty and only modest reform of the CAP, Poland's farmers could theoretically compete effectively with EU producers in respect of nearly all the raw materials covered in the study – wheat produced on smaller farms being the only exception. Should, however, the zloty appreciate (in real terms) by 30% by 2002, the competitiveness of Poland's agriculture would, of course, erode.

As for processing activities, accession to the EU and with a constant real exchange rate for the zloty, Polish processing activities would appear to remain competitive in the areas of rape-seed crushing, processing apples into apple juice concentrate and slaughtering pigs and poultry. Flour milling, however, would no longer appear to be competitive. Processing sugar beets into sugar and milk into cheese become even less competitive upon accession to the EU, in particular if the MacSharry reform is extended to milk and sugar. Real appreciation of the zloty reduces competitiveness in the processing sector, too. Rape-seed crushing and poultry slaughtering lose in terms of competitiveness, while apple processing and the slaughtering of pigs remain the only competitive processing activities among those covered in the study.

On full EU membership, the Polish processing industry would not be as competitive as the agricultural sector, despite the high protection afforded by EU markets. Apart from the processing of poultry, pigs and apples, the study reveals that with their current technologies, the processors would not be able to withstand the competition. Although production would generally be competitive at the farm level, those advantages are lost in processing. Technical progress could, of course, offset some of the adverse effects.

The authors of the study came to some policy conclusions in the light of their research results. To their mind, for those products where Polish competitiveness is low and where prospects of improvement are not particularly promising, it is not advisable to provide producers with signals suggesting that production should be expanded. This is particularly

true in those instances where Poland lacks competitiveness at both the raw material and processing levels (e.g. sugar). On the other hand, there are cases where Polish farmers producing the raw material are competitive, while competitiveness in the processing sector is still low (e.g. milk). In such cases, efforts should be made to improve competitiveness in the processing sector. Structural policies, involving measures such as training, technology improvement, support for enterprise restructuring, promotion of co-operation between and/or merger of plants, attraction of foreign direct investment (including elimination of barriers to entry by foreign companies) should be introduced. Foreign assistance could significantly help to speed up this process.

Slovenia

The results of the Slovene research project (Erjavec, Majcen and Rednak 1997) are estimates of the changes expected in net farming income, budget expenditures and aggregate balance effects while in the final section the general equilibrium results are depicted.

The results of the simulation estimations suggest that better net income levels in agriculture could be expected compared to levels in 1992-1995, were Slovenia to accept the CAP in its present form, i.e. scenario A1.[59] Accession under the terms of scenario A1 would increase agricultural product prices (by 5 to 10%) and direct budget support in agriculture. Costs would also increase, but less so than income; this means that aggregate net incomes in agriculture would rise by 15 to 20%.

Although as a new EU-member, Slovenia may not be entitled to compensatory payments (Scenario A2), aggregate net income would nevertheless increase in comparison to the 1992-1995 situation under this outcome (higher price increases may be expected in agricultural products than in farm input prices). None the less, it is important to emphasize that this scenario implies a distinctly marked net income reduction for those agricultural products for which the EU uses compensatory payments (e.g. cereals). Since this scenario would virtually prevent the production of several farm products, it can be considered unfavourable for Slovenia. The very least that Slovenia should do under such circumstances is to secure the authority to grant compensatory payments from its national budget; this would obviously impose a heavier burden on domestic taxpayers.

In the case of all other scenarios which demonstrate the effects of a partial or complete liberalization in prices within the context of the CAP (a drop in the prices of agricultural

[59] A reminder: A1 stands for taking over the CAP as it is now, A2 the same but without compensatory payments. B1 stands for modest CAP reform with liberalization along the lines of the 1992 reforms, with compensatory payments, B2 is the same but without compensatory payments. W represents full liberalization and prices sinking to world market level.

products), the aggregate net income in agriculture is expected to decline. EU agricultural price reductions of approximately 20% (as the simulations within the scenarios B1 and B2 envisage) would reduce net income in Slovenia by 20% (Scenario B1) and 35% (Scenario B2). On these grounds, it is important to bear in mind that liberalizing the EU agricultural price policy would affect the world market (and vice versa). This would undoubtedly lead to lower farm prices and consequently a decline in net income for Slovene agriculture as a whole, regardless of whether Slovenia is/was an EU member. The only question is whether the decrease in Slovene agricultural income would be lower, should the country enter the EU. The simulations forecast a very unfavourable position for domestic agriculture if these price decreases were to be aggravated by presupposing that Slovenia, as a new EU member, would not be eligible for budget support (Scenario B2).

The impact of accession on Slovene agriculture is likely to vary substantially between commodities. Both positive and negative effects may occur within the same scenario. As a rule, better net income levels can be expected for those farm products with currently poor economic results, and vice versa. Hence, it is impossible to provide general estimates valid for all products (the only generalization applicable for all products is to be found in the results of scenarios B2 and W, both of which are extremely unfavourable).

On the basis of conditions to be expected in the EU, agricultural products can be roughly divided into two groups:

– agricultural products which enjoy greater protection under the CAP (highly regulated – cereals, oil seeds, fattened cattle, sheep, hops, milk and sugar beet);
– agricultural products which enjoy less protection under the CAP (insufficient regulative coverage – other products, i.e. those not listed in the first group, such as pork).

As far as the products in the first group are concerned, the consequences of accession will depend mainly on the success of the pre-accession negotiations (quotas) and the status of the new EU members (compensatory payments). Should the negotiations be completed successfully, Slovenia may well expect better or at least very similar economic conditions for these products. By way of contrast, should the final outcome to negotiations be unfavourable, conditions for those products could worsen markedly.

Various scenarios yield different simulation estimates which clearly show the advantages and risks to be expected in respect of specific farm products after accession. However, it is highly unlikely that for all products exclusively good or bad predictions will come true; much will depend on the specific details of the final negotiations and the success with which Slovenia adapts to ever-changing market conditions.

All results presented here addressed the costs and benefits of producers by estimating expected changes in their incomes related to EU accession. The impact on the consumers and taxpayers has not been investigated yet, although it is by no means less important than the impact on producers' income, as each rise in agricultural income is essentially coupled with a rise in expenditure on agriculture.

A majority of the post-accession changes expected in agricultural income will be 'funded' by domestic food consumers, and a considerable share will also come from taxpayers. The net increase in the 'income' figure is the difference between the changes in income from agriculture and the changes in expenditure on the part of the Slovene taxpayers and consumers. As such, it represents the net effect of Slovene integration into the EU. The figure is positive only in those scenarios which assume that Slovenia will obtain compensatory payments from EU funds (Scenarios A1 and B1); this again underscores the vital importance of compensatory payments.

The effects of these possible changes on the processing industry and additional effects on food consumption (effects of price changes for foods not produced in Slovenia) are positive, as is the total net figure. Nevertheless, the figures are not so high as to have a critical bearing on the Slovene decision about accession.

Finally, the results of the CGE simulation are no less ambivalent concerning the balance of costs and benefits of EU accession than the results of the net income and budgetary approaches.

The assessment of Slovene inclusion in EU agriculture was carried out using the first four possible CAP scenarios. The results clearly reveal the fact that both agriculture production and foreign trade are very sensitive to the level of budget support lent. On the other hand, changes in the levels of foreign trade protection affect primarily the volume of imports. Taking into account the assumption that Slovenia may join the EU after the year 2003, the third (or at worse the fourth) scenario is probably the most realistic. One could conclude that for agriculture the effects of Slovene accession to the EU will be negative, if no structural adjustments are made in the transition period remaining.

Pointing to the relevance of proper adjustment in the realization of benefits and minimization of costs accruing from EU accession, the Slovene research group also proposed policy measures. They proposed a shift from market and price policies to structural (budget) policy: they supported the introduction of various payments with different aims (general income and structural payments) and urged that a more target-oriented structural policy be adopted and particular attention paid to forming economically efficient groups of professional farms (specialized farms with members deriving their income solely from farm activities) as well to the process of ecological restructuring. These

two aims should be seen as being complementary rather than mutually exclusive. Measures to increase competitiveness in the food industry were also called for.

IV.4.5 Shortcomings of the analyses reviewed

Given the extreme complexity of the impact of EU accession on agriculture, all of the approaches adopted in the four countries concerned failed to address at least one or more important aspects of the problem. The authors of the country reports carefully listed these shortcomings.

In the Hungarian project, it was clear from the very beginning that the approach applied is static. As long as the latest results remain unpublished, it is uncertain to what extent the authors were able to overcome this problem.

In the country report on Poland the research implemented by Piskorz and Pleva was criticized because the authors failed to take into consideration the fact that in the wake of the Uruguay Round Agreement restrictions had been introduced on agricultural protection: for example, on the volume of subsidized exports and the value of export subsidies. For several products covered by the analysis, the export level modelled substantially exceeded the permissible level of subsidized exports. Estimates of the costs of integrating Polish agriculture presented in the paper were based on specific assumptions concerning the CAP, productivity changes and world prices. Changes in one or all of those parameters could substantially change the resultant estimates. Furthermore, the results of the study were published in 1995. Since then, the prices for some agricultural products in Poland have sharply increased and the current differential between Polish and EU prices is not as pronounced as a few years ago.

Given the number of simplifying assumptions adopted in the model, the results presented should be treated with considerable caution and considered as being indicative of trends rather than precisely determined numerical values.

The project implemented by a joint group of German and Polish researchers (Polska. Analiza...1997) on the competitive position of Polish agriculture was based on the assumption of constant productivity. Productivity can improve over the years leading up to accession. Some activities which are not competitive using current technologies may then become competitive. Another shortcoming of this project was that the authors concentrated on one aspect of the CAP: prices and their possible changes. They ignored other CAP instruments, such as border protection, internal support and compensatory payments etc.

The author of the country report on Slovenia, who also was the co-author of the agricultural project, pointed to some shortcomings in the analysis. As he sees things, the net income

model for Slovene agriculture was partial and static; all calculations were based on the same assumed physical volume of production. The model thus estimates how net income levels may change with varying input and output prices. This unrealistic assumption was relaxed somewhat in the CGE model. The CGE model developed is also a static model with no dynamics (time) incorporated. Additional problems arise from the base year 1992 (with a negative return on capital in eight production sectors, high interest rates and rapid structural adjustment). The CGE results should thus be interpreted with some caution and it should be emphasized that they do not show the possible changes that might occur in real life. They only give the reader a notion of particular sectors' sensitivity to further foreign liberalization and assumed government policy actions compared with the actual situation in the base year, 1992. Long-term results are implicitly incorporated into the assumptions of perfectly mobile production factors: capital and labour. Another shortcoming of the CGE model is its relatively high level of aggregation of economic activities. Despite 27 sectors, agriculture is captured in only one sector. This prevents a more profound and realistic analysis. Finally, it should be emphasized that the research is focused primarily on Slovene agricultural production: the food, beverages and tobacco sectors have been omitted.

IV.4.6 Conclusions

It can be debated whether the results of the costs benefit analyses in the four countries presented above suffice. Do they permit a final and considered decision to be taken on the question whether EU accession yields more benefits than costs?

As we can see, researchers in the four countries concerned made heroic attempts to incorporate in their models the widest possible range of important factors influencing the costs and benefits of accession as well as the possible changes in those factors according to various scenarios. From the numerous projects implemented in this field it transpired that the decisive issues influencing the balance of costs and benefits are similar across all four countries.

1. In the light of the attempts to bring agricultural product prices in the new member country and the EU to the same level, what difference will still exist at the time of accession? At what price level (compared to present prices in the applicant country and the EU, respectively) will levelling actually be achieved, given the possible reforms in the EU, the obligations emanating from the Uruguay Round and the ongoing catching up process of agricultural prices in the four countries concerned?

2. Since joining the CAP will bring about a fundamental realignment of incomes in the agricultural sector, budget and eventually the whole economy, what is the net outcome of those changes for the economy as a whole: a net inflow or net outflow of resources? What changes will take place in the net income position of farmers, processing industry,

consumers and the budget (taxpayers)? What changes will the level of individual agricultural products undergo in terms of the output, price and export subsidies permitted?

3. How will the competitiveness of both farmers and the processing industry change upon accession under the various scenarios for CAP reform and the possible transitional period for new members?

4. Under the given country-specific strengths and weaknesses of agriculture in the four countries will there be an opportunity to reduce accession costs through temporary exemptions from EU regulations in the post-accession period? To what extent can these countries rely on EU transfers to finance adjustment prior and subsequent to the accession? Is there scope for an innovative support policy which departs from the scheme applied to incumbents hitherto and would it be tailored to the individual countries' needs?

The research projects on costs and benefits of accession in the countries concerned in the field of agriculture failed to provide final answers to the above questions, despite their valuable findings in many details. Given the degree of uncertainty in all decisive issues relating to accession, this shortcoming was inevitable. However, in most projects implemented thus far the final balance of measurable costs and benefits tends towards zero, in the sense that depending on the specific variables of the scenario applied, the balance is either negative or positive. Drawing solely on the findings of the projects reviewed above no well-founded decision on economic usefulness of accession can be made. Uncertainty also prevails as to the level of individual products. Farmers can be given no clear guidance nor can any specialization be recommended that would enable them to start adjusting in time.

This uncertainty should bear a clear message for applicant country negotiators and the EU alike. A conscious search for modalities conducive to a manageable adjustment process and a sense of innovation for country-specific support programmes seem to be a prerequisite for the countries' successful accession to the EU in the agricultural sector.

IV.5 Regional policy issues

IV.5.1 Attempts to quantify and measure costs and benefits through transfers

The main issue of the projects reviewed in this section was the assessment of the amount that one or more applicant country may receive from the EU Structural Funds and Cohesion Fund in the post-accession phase. This is certainly not solely a matter of costs and benefits in the narrow field of regional policy. None the less, these transfers which, apart from free access to the internal market, constitute the most important benefit to be

gained from accession to the EU are often discussed in the context of regional policy, since most of these transfers take place at the regional, and not the national, level.

IV.5.2 Gross transfers

The rough approach to the issue of 'costs and benefits through transfers' was that of simply estimating future inflows. This calls for a clear assumption about the principles governing the allocation of transfers once the new member countries are entitled to receive such transfers.

The most detailed and sophisticated analysis on the subject has been written by Gy. Horváth and I. Illés in Hungary. [60] The calculations relate to the amounts of transfers according to Objective 1 of the Structural Funds, as distinct from the Community Initiatives and the Cohesion Fund. Framework assumptions were that:

- Hungary cannot obtain support from the other Objectives (2, 3, 4, 5a, 5b, 6),
- Hungary, Poland, the Czech Republic, Slovakia and Slovenia accede simultaneously.
- Regulation of financial resources and that of distribution remains unchanged.
- After enlargement net beneficiaries in the present EU will remain beneficiaries after the enlargement albeit with less net transfers
- The year of accession for the five countries concerned is 1999.

The authors produced a synthetic indicator calculated on the basis of the share of population in the regions supported according to Objective 1. This is the basis of all calculations, modified by a weighted average of the following three factors: development level of the country and that of the regions concerned relative to the EU and unemployment rates in the regions. Taking the total allocation in the enlarged EU as 100%, the shares calculated are as follows: Czech Republic 5,24%, Poland 38,87%, Hungary 7,8%, Slovakia 4,34% and Slovenia 1,11%.

They then summarized Hungary's estimated total share from Structural Funds transfers (including Community Initiatives). As 90% of the Structural Funds finance member states' programmes and 70% of the programme-related financing is provided for Objective 1, it was estimated that Hungary's share may amount to about 7-8% of Objective 1-related expenditures and its share in the total Structural Funds-related amount may be about 5%. Community Initiatives represent 9% of the total Structural Funds budget in which the

[60] Horváth Gy., Illés, I. (1997): *Regionális fejlodés és politika. A gazdasági és a szociális kohézió erositésének feladatai Magyarországon az Európai Unióhoz való csatalakozás idoszakában (Regional Development and Policy. Tasks of Strengthening the Economic and Social Cohesion in Hungary in the Period of the Accession to the European Union)*, in: Európai Tükör Muhelytanulmányok, No. 16. Strategic Task Force for European Integration, 143 p.

Hungarian share is estimated at 5-5,5%: about 0,5% of the total amount of Structural Funds. As a consequence the authors put Hungary's total estimated share in the Structural Funds at about 5,5%.

In estimating the allocation of Cohesion Fund transfers, Horváth and Illés relied on the arithmetic mean of the population, territory and relative underdevelopment according to GDP (the countries concerned are the currently entitled countries and the new entrants). According to their findings Hungary would have a share of 8,2% in total Cohesion Fund transfers (the shares of the other new entrants would be: Czech Republic 6,9%, Poland 33,6%, Slovakia 4,4% and Slovenia 1,4%).

The authors calculated the actual amounts transferred according to three different scenarios. Two of them are quite unrealistic. In the first scenario, it is assumed that an almost unchanged amount of transfers will be distributed among the members of an enlarged Union. In the second scenario, present incumbents increase their contributions to an extent that facilitates the application of the present allocation rules even after enlargement. The first scenario is unacceptable to the present beneficiaries, the second to the present net payers. The third scenario counted on maintaining the 1.27% contribution ceiling, but offered a compromise in terms of the allocation side being balanced out between the new entrants and 'old' beneficiary countries. In principle, this third scenario is quite close to the solution put forward in the Agenda 2000.

For Hungary the results range wildly according to the scenario applied: in 1999, the year of the hypothetical accession, the transfers amount to ECU 1,980 billion according to the first scenario and ECU 4,205 billion according to the second. The realistic third scenario foresees ECU 2,586 billion from the Structural Funds and the Cohesion Fund. The results of the third scenario, with estimations for the enlarged union as a whole (including other eastern applicant countries), are summarized in Table 1.

In another publication, the Hungarian author, L. Dorgai, adopted a completely different approach to estimating the amount of transfers from the Structural Funds and the Cohesion Fund.[61] The fundamental idea is to take as a starting point the transfers to three countries (Portugal, Greece and Ireland) whose territory as a whole fell under Objective 1, thus constituting in this respect at least, good substitutes for the eastern applicant countries.

The author's basic assumption is that EU regulations will continue to apply as they do now. The 1994 -1999 EU budget for structural operations was used in the calculation. The results thus show the amount that Hungary would hypothetically have received in the

[61] Dorgai, L. (1997): *Számíthatunk-e az Európai Unió támogatására a regionális feszültségek kezelésében? (Can We Count on the Assistance of the EU in the Treatment of Regional Inequalities?)*, in: Gazdálkodás, 1997/6, pp. 7-22.

period 1994 – 1999, had it been a full community member. In order to obtain numerical results, the author re-calculated the EU support (per capita and per km²) lent to Greece, Portugal and Ireland and drew up an average figure for the three countries using the respective Hungarian data. According to computations using the average of the three reference countries, Structural Fund transfers (without Community Initiatives) for Hungary would be of the order of ECU 2.4 billion a year.

Table 1

1999 amounts of Structural and Cohesion Funds support, scenario 3

(millions of ECU)

	Provision Objective 1	**Provision Objectives 2, 3, 4, 5a, 5b, 6**	**Community Initiatives**	**Cohesion Fund**	**TOTAL**
Austria	127	202	21	-	250
Belgium	126	101	44	-	271
Denmark	-	76	16	-	92
Finland	-	239	23	-	262
France	291	1032	242	-	1565
Greece	1258	-	174	265	1697
Netherlands	14	191	64	-	269
Ireland	409	-	73	109	591
Luxembourg	-	9	3	-	12
United Kingdom	377	766	238	-	1381
Germany	2550	570	332	-	3452
Italy	2393	464	286	-	3143
Portugal	1030	-	160	217	1407
Spain	3228	461	412	956	5057
Sweden	-	160	19	-	179
Czech Republic	**1439**	**-**	**164**	**234**	**1837**
Poland	**10680**	**-**	**666**	**1143**	**12489**
Hungary	**2143**	**-**	**164**	**279**	**2586**
Slovakia	**1193**	**-**	**92**	**149**	**1434**
Slovenia	**304**	**-**	**36**	**47**	**387**
TOTAL	27480	4271	3227	3400	38378

Source: Horváth-Illés (1997), p. 113.as cited in the Country Report: Hungary.

Dorgai made a second attempt to estimate the transfers for Hungary, by projecting the Structural Fund transfer/ GDP ratio of the three EU countries concerned in relation to Hungarian GDP data. Restricting the findings to those based on the three-country average data, the result is an annual amount of ECU 889 million: ECU 87 per capita or 2.63% of Hungary's GDP . The author also estimated a combined value of possible transfers from Structural Funds, Community Initiatives and Cohesion Fund, using the latter transfer/GDP ratio approach. This combined value amounts to ECU 1.4 billion a year, considerably lower than the values estimated according to the former method.

One of the Polish projects also attempted to estimate the amount of transfers available to Poland in the context of structural policies. [62] That notwithstanding, the estimate refers not to the potentially available amount, but to one which seems realistic in the light of the constraints imposed by the limited absorption capacity and the need for co-financing. The author's estimate is thus half way between a gross and net calculation of transfers. His result is an estimated ECU 1.5 to 2.2 billion of structural assistance in the year 2000; this corresponds to ECU 37-56 per capita or 1.0 to 1.5% of Poland's GDP.

Czech researchers have made but one attempt as yet to assess the value of transfers from the Structural Funds and the Cohesion Fund.[63] Using the implicit assumption that the Czech Republic will be full EU member by 2002 the annual inflow in that year was estimated to range between ECU 0.95 billion to 1.09 billion. An estimated ECU 240 million was expected to come from the Cohesion Fund. The rounded combined value of the two transfers amounts to something between ECU 1.24 billion to 1.33 billion.

IV.5.3 Net gains

Certainly all the above estimations assessed transfer values in gross terms. However, in order to obtain indication of the real gains obtained through transfers from the EU budget the transfers must be calculated in net terms or a balance of transfer-related costs and benefits must be computed.

Horváth and Illés calculated that even after subtracting the transfers that Hungary as a member will have to pay to the EU, the balance could still be assumed to be between ECU 2,237 million and ECU 2,383 million in the country's favour: between 7.2 and 7.7% of the 1999 GDP forecast in the government's medium-term programme. (The difference between the two figures is explained by the fact that either the exchange rate or the purchasing power parity was used when calculating the GDP). The above transfer/GDP shares for Hungary, however, immediately raise the question of compatibility with the Agenda 2000 recommendation as to the upper limit of transfers being fixed at 4% for transfers from the Structural Funds.

Dorgai estimated an annual transfer from Hungary to the EU of ECU 0.4 to 0.5 billion. This reduces the gross value of incoming transfers as calculated by the author by about one third.

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[62] Kwiecinski, A. (1995) *Structural Funds in the European Union - possible benefits for Poland.* Foundation of Assistance Programmes for Agriculture, Warsaw , July 1995.

[63] Ministry for Regional Development, Czech Republic as cited in the Country Report: Czech Republic (Bárta 1999)

Kwiecinski (1995) assumes that Poland's contribution to the EU budget will amount to 1% of the GDP or ECU 1.46 billion in the year 2000. That is equal to the lower limit of the estimated range of gross transfers from the EU to Poland under the structural assistance programmes (1 to 1.5%) The balance of costs and benefits is quite meagre if measured only in terms of net transfers. In the best case it amounts to 0.5 % of the GDP; in the worst case no measurable net gains are to be obtained through transfers.

Table 2

Hypothetical balance of Structural and Cohesion Funds support and the contribution for 1999, according to scenario 3

	Contribution shares based on exchange rates, % (1)	Contribution shares based on PPPs, % (2)	Contribution according to (1), million ECU	Contribution according to (2), million ECU	Structural and Cohesion Funds support, million ECU	Balance according to (1), million ECU	Balance according to (2), million ECU
Austria	2,54	2,25	975	864	250	-725	-614
Belgium	2,98	2,97	1144	1140	271	-873	-899
Denmark	1,90	1,50	729	576	92	-637	-484
Finland	1,19	1,18	457	453	262	-195	-191
France	17,75	16,10	6812	6179	1565	-5247	-4614
Greece	1,27	1,66	487	637	1697	1210	1060
Netherlands	4,37	4,06	1677	1558	269	-1408	-1289
Ireland	0,67	0,75	257	288	591	334	303
Luxembourg	0,18	0,16	69	61	12	-57	-49
United Kingdom	13,22	14,55	5073	5584	1381	-3692	-4203
Germany	26,85	22,46	10304	8620	3452	-6852	-5168
Italy	13,97	15,22	5361	5841	3143	-2218	-2698
Portugal	1,20	1,70	461	652	1407	946	755
Spain	6,78	7,69	2602	2951	5057	2455	2106
Sweden	2,60	2,18	998	837	179	-819	-658
Czech Republic	**0,43**	**1,29**	**165**	**495**	**1837**	**1672**	**1342**
Poland	**1,23**	**2,63**	**472**	**1009**	**12489**	**12017**	**11480**
Hungary	**0,53**	**0,91**	**203**	**349**	**2586**	**2383**	**2237**
Slovakia	**0,16**	**0,46**	**61**	**177**	**1434**	**1373**	**1257**
Slovenia	**0,18**	**0,27**	**69**	**104**	**387**	**318**	**283**
TOTAL	100,0	100,0	38378	38378	38378	0	0

Source: Horváth-Illés (1997), p. 117, as cited in the Country Report: Hungary.

IV.5.4 Estimation after the publication of Agenda 2000

T. Szemlér had the advantage of being a latecomer; he was able to draw on the information from the Agenda 2000.[64] Following the publication of that document, it has become possible to calculate things in the light of pre-accession aid; this was not the case with earlier estimates. Even if it is clearly only indicative in nature, the financial framework for 1999-2006 provides at least a tentative starting point for estimations. Szemlér assumes that Hungary would receive pre-accession aid in the order of ECU 129 million in 1999 and ECU 290 million in 2000 and 2001, respectively, provided the 16.1% share of Hungary's population in the combined population of the applicant countries were used as the yardstick for allocation. Applying the same procedure, about ECU 160 million of pre-accession aid could be used for structural operations in 2000 and 2001.

Agenda 2000 provided indicative figures for transfers related to structural operations in the first years of accession. These transfers would gradually increase. In his calculation, Szemlér used the same method when allocating the total sum among the new members. According to his calculation, transfers in Hungary's favour under Heading 2 would amount to ECU 604 in 2002 and ECU 1945 in 2006 (at constant 1999 prices). The increase over five years would be more than threefold.

It is worth comparing pre-accession aid to post-accession transfers. Pre-accession aid is much smaller, but co-financing requirements will likely be less strict. Up to the time of accession the applicant countries will not have to pay contributions to the EU budget; in this respect, therefore gross transfers are nearly equal to net transfers. This does not apply to transfers after 2002, the hypothetical date of accession. The co-financing requirement will surely be applied and transfers to the EU budget will have to be paid. If there is no graduality in the transfer payments, a sort of mirror image of the gradual increase in transfers from the EU, an absurd situation may emerge in the first few years after accession with little or no net gain in structural operations, just at a time when the new members will have to cope most with adjustment.

IV.5.5 Costs and benefits whose quantification is difficult or impossible

A decisive aspect of eligibility for transfers related to regional policy projects is additionality or the fulfilment of co-financing requirements. This is an issue which is more or less quantifiable, yet owing to the secondary effects its analysis in a cost/benefit context defies quantification.

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[64] Szemlér, T. (1998): Az Európai Unió keleti kibovítése és a regionális célú támogatások alakulása az Agenda 2000 fényében (The Eastern Enlargement of the European Union and the Development of Regional Transfers in the Light of the Agenda 2000), IWE, OMFB, Budapest, 51 p.

The Czech project cited reckons with a co-financing requirement amounting to something between 42 and 50% of the gross inflow from the Structural Funds.

Horváth and Illés (using data from their third scenario) count on a co-financing requirement necessitating the mobilization of national funds equal to 60% of the inflow from Structural Funds. They assumed that half of the projects initiated had already been planned and the resources duly allocated to them; thus only the other half featured as an additional burden on the budget. For this 'other half', the authors estimate that it may amount to 0.25% of the GDP in one year. This, together with the contributions to the EU budget may amount to some 1% of the GDP. The authors also mention that additional costs will emerge because the new facilities called into being with the assistance of the EU will have to be continuously operated and maintained, the related costs of which may also be considerable.

In Kwiecinski (1995) the co-financing requirement as a constraint upon major inward transfers was already taken into consideration in the estimation of possible inflows.

Dorgai also takes into consideration the limitations imposed by the co financing requirement and his second approach (using the transfer/GDP ratios of three relatively poor EU countries) differs from the first one (using per capita and per km² data of the same countries) in that the second scenario reflects better the constraining effect of additionality.

Calculating the costs of additionality and co-financing is particularly difficult because theoretically all EU-financed projects may be integrated into investment plans at the local, regional or national level. In this case, no additional burdens through co-financing emerge. However, at the other extreme, all supported projects may exceed the respective planned investment framework. In this latter case, co-financing necessitates the mobilization of new sources. Both cases are unlikely in their pure form, but certainly they indicate the extremes between which the burden of co-financing may move. No doubt, a situation closer to the former extreme is more advantageous, reducing the expenditures in the budget or facilitating the reallocation of expenditures, thus realizing more targets for the same (national) money. If the situation in real life is closer to the latter extreme, then either other spending programmes of the budget must be cut in order to reallocate sources for co-financing purposes or the expenditure side will be higher than originally planned with a deficit higher than planned. If both these options are impossible, the project must be dropped, cut back or, in a better case, merely postponed.

The opportunities for reallocating the expenditure side of the budget either at local or nation-wide level are very limited. In the first instance, if other investment projects are dropped in favour of EU-supported projects, it is questionable whether the new composition of the centrally/locally initiated investment projects will be better or worse than

it was originally (without the EU supported projects). The evaluation is even more difficult, if the reallocation of expenditures takes place to the detriment of items of non-investment expenditure. How can the benefits gained by constructing a new road be compared to losses suffered by cutting expenditures on health care or education, for example? If the new resources needed are created by accruing larger deficits in the local/central budgets (and cumulatively in the general government budget), the implications are manifold. They could be negative leading to higher imports and/or increasing inflationary pressure which, in turn, would inevitably call for stabilization measures. As already mentioned, costs of operation and maintenance may also be considerable.

In the long term EU transfers will clearly have a positive impact on the general government budget of the new eastern members. Once the 'phasing-in' period is over and the new members receive more or less comparable net transfers (relative to GDP) to those that incumbent 'poor' members received in 1995, and once the new members' ability to elaborate projects that qualify for financing by the EU is accepted, gains through net transfers will outstrip related costs. In their article on the budgetary impact of financial transfers from the EU and relying on Breuss' estimates[65] of transfers for the new eastern members, Éltetö and Inotai calculate[66] that (under the above-mentioned conditions) the Czech Republic, Hungary, Slovakia and Poland would be able to afford much higher budget expenditures and/or lower revenues than would have been feasible without transfers. (The authors assume that transfers could offset a budget deficit in the range of 4.1 to 6.8% relative to the GDP.)

Although this section of the paper was devoted to the subject of costs and benefits related to transfers from the EU and their budgetary impact in that context, it must be mentioned that the impact of transfers is but one aspect of the overall budgetary impact of EU accession. Budgetary costs related to the accommodation process in the field of environmental protection, social standards and technical standards demanded by full membership may be very high. To a large extent they depend on the duration of the temporary exemptions granted to new members.

IV.5.6 Muddled regional policy in the countries concerned

With its collapse, Communism also buried the regional policy of that era. In the process of transition, however, priority has been given to liberalization, restoring macro-economic stability, opening up to competition from the world market and creating the institutional

[65] Breuss, F. (1995) Costs and benefits of the EU's Eastern Enlargement WIFO Working Papers 78/1995

[66] Èltetö, A. and Inotai, A. (1997) Az Európai Ùnión belüli pénzügyi transzfer és a nemzeti költségvetés (Financial transfers in the EU and the national budget) Statisztikai Szemle 6/1997 (Budapest) p. 462.

framework for a market economy. Regional policy has lagged behind in all these respects, and fiscal rigour has also impaired the means that can be used.

In the Czech Republic the level of homogeneity was high in terms of the development of individual regions under the centrally planned economy. The territorial differences in terms of real income per capita were rather small and relatively advanced regional planning had a balancing impact on regional development – despite frequent misallocation of resources. In the course of transformation, however, striking regional differences began to emerge as a consequence of economic restructuring.

According to the author of the Czech country report (in mid 1998) the Czech Republic had no regional policy. As transformation set in, substantial changes to State administration were introduced. These changes were directed towards abolishing mid-level (regional) administration bodies positioned between the national and local levels. While the former now corresponds to the central budget, the latter are tied to municipal budgets. The absence of regional governments, and with it the absence of funding for programmes of regional importance, was criticized by the European Commission in its assessment of the avis in July 1997.

In Slovenia the combined problems of environmental protection, restructuring and industrial structural adjustment have become acute as many of the former pillars of industry collapsed under the increased burden of restructuring and adjustment to new conditions following the independence of the country in 1991. The Slovene government has been treating these acute and complex problems (with all their technological, ecological, regional, economic, social and political dimensions) as sectoral, and not regional, problems. In the evaluation of the author of the Slovene country report the Slovene government's interventions have been characterized by a lack of any system and predetermined criteria for the distribution of resources between firms or regions. Following the tight restrictions on public expenditures, the percentage of regional incentives for less developed or demographically endangered regions in Slovenia's GDP dropped from about 0.5% in the eighties to 0.1% in 1994. On the other hand, government economic interventions were substantial – 6% of the GDP in the period 1991-95. There is no doubt that these interventions also had a regional dimension and impact, but it was not explicitly addressed, making it quite difficult to assess the impact on regional development.

According to the author of the country report on Slovenia , Slovenia certainly requires an explicit and comprehensive regional policy harmonized with the EU standards owing to the large increasing disparities in development levels and the possibilities open to different regions.

In Poland regional policy hardly existed in the early 1990s owing to prime priority being given to restoring macro-economic equilibrium.

In Hungary a very modest regional policy was implemented in the early 1990s, reflecting the difficulties caused by the transformation recession and the need to cut public expenditures in order to check further growth of public debt, foreign and domestic. In the period 1991-1995, 0.8% of investments (corresponding to 0.1% of the GDP) was devoted to regional development. Illés and Horváth investigated the territorial breakdown of those central and local government investments in Hungary which fit in with the objective of the EU Structural Funds. These investments were of a greater magnitude, on average 9% of the GDP, than those allocated according to regional policy considerations. They found that the latter allocations do not reflect the territorial problems of the country and are heavily concentrated in the most developed central region.

In conclusion, it is clear that all the four countries concerned suffer serious regional disparities in terms of the levels of development and growth prospects. Moreover, none of them has a modern institutional system for regional policy with clearly defined targets and a sophisticated range of instruments. Finally, none of them enjoys the manoeuvring space in terms of budgetary expenditure needed to implement an ambitious regional policy. Given these starting positions, potential participation in current EU programmes offers manifold benefits. Of these benefits, transfers are quantifiable: coupled with the countries' own resources, they may provide for a considerable easing of the financial constraints on regional policy. A regional policy adjusted to the requirements of the EU is certainly better than the present scarce policies; nevertheless, it is not definite that this is the best that the EU can offer the new eastern members. The philosophy of support from the Structural Funds relies on diminishing regional disparities in the participating countries. Without doubt, regional disparities are great in the applicant countries; in some cases, they are even growing. At the same time, however, the nation-wide backwardness compared to the EU average is one of the largest obstacles to the new applicants' rapid and successful integration into the EU. In this respect it might be expedient to establish a special assistance programme beyond (or partly instead of) the current schemes targeted at reducing the distance between the general level of economic development and the EU average.

IV.5.7 PHARE as a training field

One of the projects reviewed in the Country report on Poland[67] (Szlachta, 1997) mentions the importance of the PHARE projects which offer an opportunity to gain experience in the

[67] Szlachta, J. (1997) *Programowanie rozwoju regionalnego w Unii Europejskiej (Programming of regional development in the European Union)*, Wydawnyctvo Naukowe PWN, Warsaw.

use of EU financial support. Szlachta underlines that several PHARE programmes have played a very positive role in developing regions in Poland, as well as regional co-operation with regions in the neighbouring countries. They have also helped to obtain experience in the utilization of EU funds. These programmes included: PHARE-STRUDER, CROSSBORDER and the LOCAL INITIATIVES PROGRAMME. The most important programme is STRUDER. Its objective is to support regions with declining industries, social problems and state enterprises in adjusting to market-economy requirements. The instruments include: developing the institutional infrastructure needed in a business environment, re-training unemployed persons and financing small-scale infrastructure projects. A special foundation (the Polish Regional Development Agency) was set up to administer this programme. Szlachta found the experience gathered hitherto to have been excellent. Funds have been used very efficiently, contributing to the recovery of the regions involved. People have gained new experience that can also be put to good use in the future when drawing on Structural Funds.

IV.5.8 Absorptive capacity

The opinion cited above dates from before the relatively recent development when a portion of the PHARE funds allocated to Poland was withdrawn for want of appropriate projects being submitted. This may be seen as a prelude to similar fiascos, posing a potential threat to all new member countries where EU-funded structural operations programmes are concerned. As mentioned earlier, transfers provisionally allocated to new members have to translate into net terms, i.e. reduced by contributions paid by the new members. Even these net gains are only potential gains. If the new members fail to increase their absorptive capacity to the extent required, net gains may be very low or even non-existent, since once the modalities of accession are clear the contributions are to all intents and purposes fixed, while realized net gains depend on absorptive capacity (in a broader sense).

'Absorptive capacity' is certainly a generic term. Over and above the required ability to provide the necessary co-financing, it includes: the existence of an appropriate institutional background at the level of the central government and at local government levels; the ability to adapt innovative national and cross-border forms of co-operation; and the ability to initiate, prepare and run sufficient number of projects which 'deserve' EU support. This is often a difficult task even for incumbent countries with a long history of membership (and failed projects). The establishment of such an institutional background or the reform of existing institutions is an expensive, time-consuming and difficult process; it may lead to a conflict of interests as the new regional administrative units will make old structures obsolete. The year of accession and the first few years thereafter will be of critical importance from the standpoint of absorptive capacity. The 'phasing-in' process foresees a gradual increase in transfers, with relatively low values in the very initial stage of

membership. Although the new members' specific contributions may be lower in the first years of membership than those of incumbents, the net gains realized may be very limited, should the new members be unable to submit an adequate number of projects acceptable for financing. As mentioned earlier, this may well occur in the very first years of membership when the danger of adjustment costs accumulating is highest. If the conditions governing post-accession transfers are similar, the extent of pre-accession aid might be a valid indicator: a high share of approved projects can be seen as a sign of maturity for full membership.

IV.5.9 State aid

The applicant countries have had a long history of State-initiated development programmes and subsidies to branches, enterprises and regions: very often based on political (as distinct from economic) criteria. Although transition to a market economy, deregulation and, last but not least, shrinking budgetary resources have radically reduced State aid, cultural patterns persist. Lobbying and occasionally corruption are present in all four countries. This practice is not compatible with membership in the EU. Under the prevailing regulations, State aid is only allowed on a very limited scale: for strictly defined purposes and under conditions of free competition. In this context, regional development is of paramount importance; in the first half of the current decade more than 50% of the State aid in 12 EU countries was disbursed according to regional criteria.[68]

A Slovene researcher (Murn 1998) found that in Slovenia most of the State aid currently went to special sectors and the present structure determining the final destination of State aid could not be maintained in future. Her suggestion was that things be changed and State aid take on a regional focus so that the primary goal of central government interventions became regional development (especially in less developed regions), the secondary goals being horizontal and sectoral goals. She also suggested extensively modifying the current mode of government promotion for horizontal and sectoral goals so as to bring them in line with regional goals.

These recommendations also hold true for other applicant countries. Whether the requirement to reduce and restructure state aid is beneficial or not is partly a question of 'taste'. For all those who call for vigorous autonomous State intervention in an economy, these limitations constitute a loss. For those who do not believe in the efficiency of State-initiated investments and subsidies, the changes constitute a major step forward. In any

[68] Report from the Commission, 1997 cited in Murn, A., (1998) *The impact of economic policy on regional development and directions of changes and completion of national and sectional economic policies for the goal of attaining more congruent regional development* A paper prepared for the Strategy of Regional Development of Slovenia, Institute for Economic Research, Ljubljana .

event, strict control by the EU of the State aid programmes remaining bears promise of reducing the threat of nepotism and politically motivated allocations.

IV.5.10 Transfers and trade balance

Accession to the EU will undoubtedly increase the attractiveness of the four countries both for FDI and portfolio investment. The incipient transfers from the EU budget will add to other inflows. Apart from transfers destined for agriculture, transfers from the Structural Funds and Cohesion Fund may amount to 4% of the GDP at the maximum, after subtracting the countries' contributions to the EU amounting to 3% of the GDP at the maximum. As one Polish researcher sees things[69], relying on the post-accession experience of Spain, Portugal and Greece will lead to real currency appreciation and deterioration of the trade balance and current account (excluding official transfers). The author points out that a trade deficit is not necessarily a negative phenomenon, if investment goods account for the larger part of the increase in imports and not consumer goods.

IV.5.11 Conclusions

Transfers from the EU have been regarded as perhaps the most important source of benefits accruing from membership. Even prior to the publication of Agenda 2000, the actual extent of the gains was once the subject of calculations based on comparable data for the net recipient EU incumbents. With the publication of Agenda 2000, estimating gross transfers has became easier.

An important aspect of the research conducted was to calculate net transfers, a better approximation of gains available through transfers than gross transfers. The exercise made it necessary to estimate the new members' future contributions to the EU budget.

Available net transfers are still not equal to net gains. Scarcely quantifiable aspects, such as the absorptive capacity of future new members, translated into details such as the ability to meet the co-financing requirement through reforms in public finance, establishment of the requisite institutional infrastructure and the efficient operation of the new regional administrative bodies will have a decisive impact on the final balance of transfers, and hence on costs and benefits. Absorption problems may keep net gains low or, in the worst case they may not even emerge at all. Excellent preparedness in terms of absorptive capacity, however, would not of itself result in substantial net gains in the first years of membership, as the 'phasing in' period proposed in the Agenda 2000 sets a fairly low upper limit for gross transfers in the initial years of membership. It is an unfortunate

[69] Orlowski (1996/a).

combination that just in the very first years of membership net gains through transfers will be relatively lower than at a later stage, as the greater part of the costs arising out of the need to accommodate to the adoption of the acquis communautaire will have to be borne in those early years.

The new members will be compelled to introduce costly measures (in both economic and political terms) in order to improve their absorptive capacity. In many cases, archaic and inefficient structures will have to be eliminated. That will induce strong pressure in favour of rapid modernization: the cost and pain associated with these changes will, in the medium and long term, pay off in (hardly quantifiable) gains.

IV.6 Free movement of goods and customs union

Of the four areas selected for investigation in this project, the 'free movement of goods and customs union' is an area of particular importance in one crucial respect: with the gradual liberalization of trade having been stipulated in the Association Agreements between the European Union and the four countries, the process of integration is at a much more advanced stage than processes in the other three selected areas: transfers, agriculture or monetary union. Transfers within the framework of PHARE have been and pre-accession aid from 2000 onwards will be on a limited scale and will scarcely match the transfers the countries will receive once they are full members.[70] Agricultural trade has been liberalized to a modest extent, but the state of affairs in that field differs sharply from the situation that will prevail once the new members become an integral part of the CAP or its successor. Moreover, the four countries are still very far from being able to participate in the monetary union. In the trade sector the situation is different: where the exchange of industrial products is concerned the transition to free trade to be completed by 2001 will constitute a decisive step, compared to which the changes associated with accession will be of minor significance.

Perhaps this explains why several research projects in the four countries concerned have been preoccupied with analysing the impact of the free trade agreement while relatively little attention has been paid to the impact, cost and benefits of accession in the field of foreign trade. Certainly the completion of transition to free trade, important as it is, will divert attention way from those problems (and related costs and benefits) that may emerge between 2001 and the date of accession – and, more importantly, in the post-accession period.

[70] In an extreme case, assuming that the EU economic growth will be very weak over the next decade, and the 'phasing in' approach will be applied, transfers in the first one to three years of membership may be not much higher than those under pre-accession aid.

IV.6.1 Impact of transition to free trade in manufactures: does it offer any lessons for accession?

The Association Agreements between the EU and the four countries concerned envisaged the gradual and asymmetric[71] demolition of traditional trade barriers (quantitative restrictions and tariffs) in a ten year transitory period.[72] However, as for integrating foreign trade in manufactures as a process with separate stages, transition to free trade is the second of three discrete stages of liberalization. The first stage took place in 1989-1991 when the countries' extremely strong and basically non-price protection, the legacy of a planned economy, was largely demolished and replaced by basically price-based protection which was still relatively high compared to that of the EU. For Slovenia this coincided with separation from Yugoslavia, thus compounding the impact of opening up the economy. The Czech Republic felt the same impact in 1993 when Czechoslovakia fell apart.

A good illustration of the dramatic character of the first stage of liberalization was provided in the country report on Slovenia in the chapter entitled 'Free movements of goods and customs union'.

The first autonomous stage of liberalization was followed soon by a second stage, as stipulated by the free trade agreement with the EU. Owing to the asymmetry, only the easier part of the liberalization process started right after the agreement came into force. The really stringent obligations for the four countries concerned (demolition of tariffs) started in 1995 (except for Slovenia). Most probably, the consequences of the first stage of liberalization prior to the free trade agreement were still being felt to a considerable degree when transition to free trade with the EU began. This makes a methodologically 'clean' analysis of the impact on the free trade agreement problematic. Some of the phenomena counted as 'costs' of the free trade agreement are still a consequence of the early autonomous opening up of the four countries concerned.

Of the several projects investigating the impact of the Association Agreement, the country report on Hungary reviewed one which undertook to quantify Hungary's gains (additional exports) attributable to the gradual abolition of trade barriers hampering Hungary's exports to the EU.[73] In the first year, 1992, the initial gains accruing from the liberalization of EU imports from Hungary were modest, amounting to a mere 6.8% of total industrial exports. Depending on the growth rate of exports to the EU (0, 50%, 100% respectively, according

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[71] Favouring the eastern partners.

[72] In the case of Slovenia, this period is only five years (1997-2001).

[73] The Country Report: Hungary reviewed Chapter 6 of the study Schweitzer, I. editor (1994) *The Effect of the Europe Agreement on the Performance and Competitiveness of the Hungarian Economy, with Special Emphasis on Regulations on Free Movement of Goods*, KOPINT-DATORG, Budapest, 1994 (the study is written in Hungarian language).

to three different scenarios) the gains realized between 1992-2001 should amount to 25.1%, 17.8%, and 14.1%, respectively, of the total industrial exports to the EU.[74]

From the standpoint of our project, the really interesting aspect of the analysis was the assumption it made about the growth of Hungarian exports to the EU. The most optimistic of the three scenarios reckoned with 100% growth (at constant prices) in 2001 compared to 1992. Subsequent events, however, show a completely different development. The value of Hungary's exports to the EU exceeded the 1992 value of exports by a factor of close on 2.5 times by the end of 1998! Even if we take into consideration that the 1998 export data are in current dollar terms, the discrepancy between the predicted and the actual exports figures is striking. The difficulties associated with quantifying impacts is obvious if the calculation of such an elementary component as the growth rate of exports is as mistaken as it was in this instance. The Hungarian analysis was published, however, in 1994 when the 100% export growth assumption was really optimistic in the light of trade data for the period 1993-1994 and the country's general economic situation!

The classic calculation of trade creation and trade diversion was applied in two projects in Poland in an attempt to quantify the costs and benefits accruing from transition to free trade in manufactures and liberalization in agricultural trade (this latter aspect was considered only in the second project).[75] In the first project (Kawecka et al. 1994) the most important variables were: the level of the initial (base) customs duty, i.e. the duty which is reduced; the price elasticity of domestic demand for the liberalized imports and external demand for domestic products; and the price elasticity of demand on domestic and foreign markets. The researchers working on this project took the decisive step of distinguishing between overall gains potentially attainable through liberalization and realized gains after taking into consideration the pricing policies and bargaining power of exporters and importers. The effect of tariff reduction (price benefit) is distributed between consumers, exporters and importers. The authors drew up several scenarios for this process with a base scenario where 40% of the price benefit went to exporters, 24% to importers and 36% to consumers. Results of the most realistic scenario for the effects of trade liberalization on industrial products are presented below.

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[74] The growth rates were the same for individual export components. That segment where no increase in gains was registered from 1992 onwards when they were exempted from customs tariffs in the first year of transition to free trade accounted for a share of 50%.

[75] Kawecka-Wyrzykowska, E., Konczyk, E., Marczewski, K., Mroczek, W., Synowiec, E. (1994) *The Europe Agreement: Effects on Poland's Industrial Trade with the European Communities* Foreign Trade Research Institute, 'Discussion Papers' No. 56, Warsaw. Blaszczyk, M., Czyzewski, A., Jasinski L., Munko, A., Pietras, J., Rowinski, J., Synowiec, E., Sledziewska, K., Witkowska, J., Wysokinska, Z. (1996) *Ocena realizacji Umowy przejsciowej dotyczacej handlu i spraw zwiazanych z handlem miedzy Polska a Europejska Wspólnota Gospdoarcza i Europejska Wspólnota Wegla i Stali. (Assessment of the Implementation of the Interim Agreement on Trade and Trade Issues between the Republic of Poland and the European Economic Community and the European Coal and Steel Community)* Komitet Integracji Europejskiej, Warszawa (Committe for European Integration, Warsaw).

Table 3

Poland: effects of trade liberalization in non-agricultural trade

(ECU million, 1991 prices)

	1992	1993	1994	1995	1996	1997	1998	1999
				Poland's exports				
Creation effect	82.7	19.6	36.8	46.7	29.5	24.0	0.0	0.0
Diversion effect	45.7	10.6	19.3	16.0	15.3	17.7	0.0	0.0
Both effects	128.4	30.2	56.1	62.7	44.8	41.7	0.0	0.0
				Poland's imports				
Creation effect	5.0	0.0	0.0	115.5	123.1	120.8	138.0	148.6
				Balance				
	123.4	30.2	56.1	-52.8	-78.3	-79.1	-138.0	-148.6

Note: The trade diversion effect on Polish imports (switch in imports in favour of EU suppliers) was not calculated for want of trade data covering all Polish in imports in CN classified data.

Source: Kawecka et al. 1994.

The data reflect the asymmetry of liberalization. The estimated liberalization effects are surprisingly low in absolute terms: for example, in 1997 Polish exports accounted for a sum total of ECU 41.7 million. In the same year, Polish exports to the EU accounted for some ECU 14,500 million. In the light of the latter figure (even if it includes agricultural exports, is calculated in current prices and covers trade with the EU 15 and not with EU 12, it must have been the basis for computation in 1994), liberalization can be seen to have had practically no impact. It seems that the vigorous growth of Polish exports has had practically nothing to do with trade creation and trade diversion.

The second Polish project (Blaszczyk et al. 1996) also calculated the trade creation and trade diversion effects of the free trade agreement. It used another set of data (Eurostat data instead of national Polish sources) and covered only two years, 1992 and 1993, but applied the same methodology as the previous project. Though not the same concrete figures, the magnitude of impact calculated was identical to that in (Kawecka et al. 1994) and once again the surprising message that trade expansion in Poland has had nothing to do with classical trade creation and trade diversion effects.

Methodologically the most sophisticated attempt at measurement was made in Slovenia. In order to assess the complexities of the impact of Slovenia's integration with the EU in the field of trade Slovenian researchers turned to CGE models. These models were focused primarily on estimating the effects of the foreign trade liberalization process that emerged in Slovenia with the introduction of new customs tariffs, full implementation of the Association Agreement with the EU and free-trade agreement with the EFTA countries,

and the adoption of the Common Customs Tariff (CCT) after accession to the EU.[76] Some studies went on to estimate the effects of adopting the CAP at different stages of development[77] and the effects of entry into the EU.[78] Recent research work at the Institute for Economic Research has been directed towards developing a two-region CGE model, EU and Slovenia being the two regions, while work on developing the HERMIN macro-econometric model is in progress.

The model used in (Majcen and Potocnik, 1996)) is based on a consistent database – the social accounting matrix (SAM) for 1992 divided into 27 standard basic production sectors of NACE classification.[79] The model includes 3,760 equations and the same number of variables. The CGE model so developed follows the development trends of the general equilibrium analysis. It is a variant of the CGE model with the major focus on an expanded analytical application. It can be used to analyse the consequences of numerous economic policy measures, but it was primarily developed to analyse the consequences of Slovenia's integration into the European Union.

In order to test the model and analyse the consequences of Slovenia's approaching the EU, a large number of simulations were made. Three groups of simulations were prepared: the introduction of new customs tariffs, the initial implementation of the Association Agreement and the full enforcement of that agreement. The summary effects of the Association Agreement at the aggregate and sectoral levels are as follows. The production sectors can be divided into three separate groups.

The first group includes the sectors where positive effects should be expected irrespective of the exchange rate, public finance or economic policies adopted. These sectors are: fishery products, basic metals and metal products, machinery and equipment, electrical machinery, radio, TV and communications equipment, transport equipment, construction, trade, financial and other market services.[80] Taking the manufacturing sectors and agriculture alone, the conclusion of the researchers was that these sectors were export-

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[76] Majcen, B. and Potocnik, J., (1996) *Slovenija in EU: analiza posledic približevanja z modelom splošnega ravnotežja (Possible Effects of Slovene Integration into the EU - CGE Approach)* Analize, raziskave in razvoj, Urad Republike Slovenije za makroekonomske analize in razvoj, Ljubljana. Potocnik, J., (1996) *Analiza posledic vkljucevanja v EU z modelom splošnega ravnotežja slovenskega gospoadrstva temeljecim na matriki družbenih racunov za leto 1993*, Institute for Economic Research, Ljubljana. Potocnik, J: *Effects of Slovene Integration into the EU - CGE 1995*, Institute for Macro-economic Analysis an Development, Ljubljana, 1997. Buehrer and Majcen, forthcoming.

[77] Majcen and Potocnik, 1996.

[78] Caf, D., Damijan, J. (1995) *Welfare Effects of Trade Liberalisation and Integration on the Slovene Economy: A General Equilibrium Analysis*, Proceedings of the East Central Roundtable Conference IV: 'Dynamic Effects of Economic Integration'-RBMP'95, Bled.

[79] A detailed description of the model, together with model specifications and all simulation results, can be found in the Country Report: Slovenia and in the original document Potocnik and Majcen (1996).

[80] Effects on service sectors are the result of government policies adopted and the liberalization process in the manufacturing sectors.

oriented sectors with high shares of imports and a below-average rate of nominal protection.

The second group included sectors where negative effects were expected irrespective of the government policies adopted mentioned above. These sectors are: agricultural and forestry products, coal, crude oil and natural gas, food, beverages and tobacco, cellulose, paper and cardboard, coke and refined petroleum products, and basic chemicals and chemical products. On average, they are less open and more protected sectors.

The third group included sectors where the effects depend largely on the exchange rate and public finance policies adopted. These sectors are: ferrous, non-ferrous ores and stones, textiles and wearing apparel, leather, footwear and leather products, wood and wood products, rubber and plastic products, non-metallic mineral products, wooden furniture and miscellaneous goods, electricity, gas, steam and water, restaurants and hotels, transport, communications, travel agencies, dwelling services and non-market services. The authors divided this group further into those sectors more sensitive to exchange rate policy and those more sensitive to public finance policy. They have an average share of exports and a nominal rate of protection with a below-average share of imports in GDP.

Table 4

Shares of basic macro-economic aggregates in three particular groups according to the simulation results in the year 1992 (data on manufacturing sector and agriculture)

GROUP	Share in total exports (%)	Share in total imports (%)	Share in total product-ion (%)	Share in total GDP (%)	Exports/ GDP	Imports/ GDP	Average rate of nominal protection (%)
1. positive effects	46.0	42.0	32.0	26.7	1.70	1.41	4.0
2. negative effects	25.8	41.6	43.4	47.3	0.54	0.79	8.5
3. uncertain effects	28.2	16.4	24.6	26.0	1.07	0.56	6.3
TOTAL	100.0	100.0	100.0	100.0	0.99	0.90	6.4

Source: Statistical Office of the Republic of Slovenia, calculations by the Institute for Economic Research, as cited in the Country Report for Slovenia.

As the authors found, the negative consequences of opening the domestic market still further would thus be particularly felt by the producers oriented primarily towards the domestic market. Further cuts in import duties would, on the other hand, positively affect export-oriented producers.

The author of the country report on Slovenia warns that the results obtained do not show the changes that will occur in real life; they offer only a notion of sensitivity in particular sectors to further foreign trade liberalization and assumed government policy actions (given the situation prevailing in particular sectors in the base year, 1992). The effects that will ultimately occur in real life will mainly depend on the individual producers' level of awareness of the need to adapt to foreign competition as well as on government policy actions. Despite the positive effects of further trade liberalization at the aggregate level, sectoral results show that (if nothing changes from the base year situation) sectors with possible negative effects will produce almost 50% of total GDP, while the effects relating to the additional 25% of GDP will depend on the policy measures adopted. If all specified measures (based on the EU accession strategy) are fully implemented on time, particular sectors and producers can expect far smaller problems.

From the results of the projects reviewed above we may conclude that the effects of introduction of the EU Common Customs Tariffs (CCT) cannot be analysed separately from the antecedents, i. e. the two waves of radical liberalization in foreign trade of the four countries concerned. The impact of the liberalization under the association agreement and the introduction of the CCT will not really be separable. From the Polish and Hungarian projects reviewed above it seems that the impact of liberalization under the Association Agreements remained moderate, thus allowing the cautious prediction that at least the introduction of CCT alone will not cause dramatic changes. (Though the suspiciously minor impact calculated by the Polish and the Hungarian projects may hint at the problematic methodology applied) But any kind of 'soft' prediction as to the overall impact of accession on trade would be irresponsible. Becoming a member of the internal market where all 'foreign' trade with the EU becomes home trade and entails the mandatory introduction of environmental, technical and social standards in the four countries may incur far-reaching costs and benefits. Experiences of free trade under the Association Agreement alone may not be sufficient to predict the impact.

IV.6.2 An attempt to measure the comprehensive impact of (i) transition to the application of Common Customs Tariffs and (ii) participation in the internal market of the EU

The only comprehensive quantitative analysis of the impact of EU accession on the applicant countries' foreign trade was implemented in Poland.[81] The investigation covered both trade in goods (industrial and agricultural) and services. The effects of introducing the Common Customs Tariffs (CCT) and joining the internal market were studied separately. In addition, specific adjustment effects resulting from adopting various EU standards were

[81] Orlowski M. , W. (1997) *Uwarunkowania i skutki przystapienia Polski do unii celnej UE (Terms and effects of joining by Poland the EU customs union)* mimeo, Warsaw.

also analysed. Standard static effects were identified by measuring trade creation and trade diversion, while in a dynamic approach the author analysed the income effects (GDP growth). According to the author, the latter will appear more in the medium term.

First, the customs union effects were calculated. Taking into account the fact that the EU import tariffs on most products are lower than tariffs in Poland, it was assumed that total imports from third countries would increase by USD 0.55 billion, once Poland had adopted EU tariffs. (The author assumed that on a weighted average import tariffs in Poland would amount to 9% and those in the EU to 2.9% in 2000, upon completion of liberalization in the wake of the Uruguay Round negotiations.) Adopting the preferential tariff rates that the EU accorded the less developed countries, was assumed to incur a small increase in the trade deficit of USD 85 million.

The income effects in the EU were based on the assumption that eastern enlargement of the Union would boost EU economic growth by 0.15% per year over five years and hence imports by 0.7% per year. An increase of that magnitude in the EU would stimulate an increase in Polish exports to the EU of USD 2 billion. In Poland it was estimated that GDP growth would increase by 0.3% per year (over a period of five years), thus implying an increase in Polish imports by USD 2.3 billion, of which USD 1.6 billion would come from the EU.

The greatest effects were assumed to come about as a result Polish enterprises joining the internal market. This effect was reckoned to make itself felt within 5 to 10 years after accession. The costs involved were due to Polish producers having to adjust to various EU standards and increased competitive pressure, as well as to increased labour costs stemming from wage increase and an appreciation of the zloty. Given the impact on the competitiveness of Polish products, Polish exports to the EU were assumed to decrease by USD 1 billion and exports to other countries by USD 0.3 billion. At the same time, imports are expected to increase – by USD 0.6 billion from the EU and by a further USD 0.6 billion from other countries. Altogether, adjustment costs would involve a deterioration in the trade balance between Poland and the EU of the order of USD 1.6 billion, and the balance with third countries USD 1 billion. It was estimated that joining the internal market of goods and services would cause Poland's trade balance to deteriorate. The increase in the trade deficit with the EU was estimated to amount to USD 2.2 billion and that with the rest of the world a further USD 1.9 billion (total exports would increase to USD 3 billion, total imports would increase to USD 7.1 billion and the overall trade deficit would amount to USD 4.1 billion).

A significant aspect of Orlowski's analysis is that he expects import and export growth to follow different time patterns, the former would appear first and the latter only years later.

According to the author of the country report on Poland this view is shared in papers published by other Polish experts.

Another important aspect of Orlowski's study is that while listing the costs of accommodation implied by joining the internal market and adopting EU standards, the impact is relativized by mentioning the Polish economy's potential for productivity growth which may offset at least part of the burgeoning costs due to accommodation. This is partly a matter for individual firms, but government policy may also exert considerable positive or negative influence at the nation-wide level: privatization, deregulation and the maintenance of a predictable macro-economic environment would help productivity to rise. As the author of the country report on Poland pointed out, this is of paramount significance in Poland given the large number of weak, non-competitive State-owned enterprises dependent on subsidies.

IV.6.3 Changing conditions of trade with the rest of the world

Accession to the EU (and as a consequence joining the customs union) brings about considerable changes in relations between the new eastern member countries and all non-EU countries. Admittedly, the overall effects are much smaller than those emerging in individual bilateral relations between the new eastern members and the EU. None the less, they cannot be ignored. The 'rest of the world' is certainly too broad a category to start with; it is thus more expedient to break that category down into different country groupings.

In one project discussed in the country report on Poland, an analysis was made of the impact of the change in coverage of General System of Preferences (GSP) following Poland's accession to the EU.[82]

One of the important elements in the EU common trade policy is the system of unilateral preferences that the Union offers to developing countries. The EU applies a GSP scheme on its imports from less developed countries. Poland also applies a GSP scheme for developing countries; however, the Polish and the EU schemes are somewhat different owing to variation in the geographical coverage of beneficiaries and the differences in product coverage and preference margins.

The analysis was based on 8-digit level import statistics, as well as on detailed annexes to the EU regulations relating to the commodity coverage of preferences. In both the case of

[82] Kawecka-Wyrzykowska, E. (1998/a) *Skutki przyjecia przez Polske systemu preferencji celnych GSP obowiazujacego w Unii Europejskiej, w: E. Kawecka-Wyrzykowska, A. Paszynski, Skutki przyjecia przez Polske preferencji celnych Unii Europejskiej, (Consequences of the adoption by Poland of GSP tariff preferences system of the EU,)* in: Kawecka-Wyrzykowska, E. , Paszynski, A. *Consequences of the adoption by Poland of the EU tariff preferences* Instytut Koniunktur i Cen Handlu Zagranicznego, Warszawa 1998 (Foreign Trade Research Institute, Warsaw 1998), and also in 'Problemy handlu zagranicznego' 1998/ 19.

the EU and Poland, the tariff preference margins are expressed as a percentage of conventional tariffs (ad valorem). The basis for calculating tariff margins for individual products subject to preferences was the level of tariffs resulting from the Uruguay Round negotiations. 1996 prices together with the commodity and geographical patterns of Polish imports were the basis for calculations. It was assumed that the GSP scheme applied in the EU at present would not change.

The main conclusions from the analysis were as follows. In 1996 the actual value of agricultural imports subject to the GSP scheme in Poland amounted to USD 326.1 million: 8.2% of total agricultural imports in that year. The hypothetical value of agricultural imports that would benefit from the GSP scheme after Poland's accession to the EU was estimated (in 1996 prices) to be USD 333.7 million: 8.3% of total Poland's agricultural imports. In brief, the change is marginal.

The actual value of industrial imports subject to the GSP scheme in Poland amounted to USD 432.2 million in 1996: 1.3% of total industrial imports. The hypothetical value of industrial imports that would benefit from the GSP scheme after Poland's adoption of the EU preferences scheme would increase (in 1996 prices) to USD 3685.9 million: 11.1% of total industrial imports. This considerable increase would be related to the increased geographical coverage of beneficiary countries and changes in the commodity pattern of the GSP list.

In the case of agricultural products, the authors expect the challenges posed by increased competition will probably be small because products from temperate zones are excluded from preferences, while those from the tropical or torrid zone do not compete directly with Polish agricultural products. In the case of industrial imports, increased competition is assumed to vary for different products, depending on such factors as the new margin of preferences and availability of domestic substitutes for imported products. The study identified several CN 8-digit level products, where a relatively high increase in cheaper imported products might be expected to appear on the Polish market (such as some types of footwear, ferro-chrome and industrial casein).

Another project from Poland attempted to quantify the impact of the Lomé convention which as a new member in the EU, Poland will have to join.[83]

As the current (IV.) Lomé Convention expires in 2000, earlier than any possible EU entry date for Poland, the country will only be involved in the successor agreement. Independent

[83] Paszynski, M. (1998) *IV Konwencja z Lome. Geneza, istota i perspektywy, (Lome Convention IV: Origin and Prospects)* in: E. Kawecka-Wyrzykowska, A. Paszynski, *Skutki przyjecia przez Polske preferencji celnych Unii Europejskiej* (Consequences of the adoption by Poland of the EU tariff preferences) Instytut Koniunktur i Cen Handlu Zagranicznego, Warszawa (Foreign Trade Research Institute, Warszawa), see also in 'Problemy handlu zagranicznego' nr 19, 1998.

of the (minor) changes that will probably take place compared to the present agreement, the implications have been assumed to be equally minor since most products imported from the APC countries are already covered by tariff preferences (GSP) in Poland. Many of those products enjoy duty free status in Poland as they come from the least developed countries. Moreover, the margin of preferences is dropping continuously lower in keeping with successive multilateral tariff reductions under WTO auspices.

The four country reports did not review projects in which the impact of changing relations with other groups of countries within the 'rest of the world' had been investigated. However, two groups of countries, CEFTA and the overseas industrialized countries, merit attention.

Of the CEFTA countries, the Czech Republic, Hungary, Poland and Slovenia belonged to the group of applicants selected for the first round of accession. Slovakia, Bulgaria and Romania were not members of the group of front-runners. On 13 October 1999 the Commission proposed that accession negotiations begin with those CEFTA members that had been left out of the first round: Slovakia, Bulgaria and Romania. Nevertheless, it seems likely that the four countries selected in this project will become EU members several years before the latter three: especially Bulgaria and Romania. This means that for some years the present CEFTA membership will split in two: the EU entrants on the one hand and the rump CEFTA on the other.

By the earliest theoretically possible date of accession (2002) for the four countries treated in this project free trade in manufactures will have already been applied to trade between CEFTA members and EU as well as to trade within CEFTA. In this respect, the four countries' accession will not give rise to any changes. The impact stems from the fact that the four countries concerned will become members of the internal market, encompassing in all likelihood agricultural products as well, while the rest of the CEFTA will not. On the one hand this means that the acceding CEFTA countries will enjoy easier access than the rest of the CEFTA to incumbents' markets as all non-traditional trade barriers will have been removed and transaction costs will have dropped. In addition to enjoying trade creating effects, the four new members may also increase their market shares by crowding out, inter alia, suppliers from the countries remaining in CEFTA. On the other hand, the four acceding countries' price competitiveness vis-à-vis the rest of the CEFTA will deteriorate in all markets as the latter will not be obliged to introduce EU standards which are expected to raise considerably production costs for those firms located in the acceding countries. The outcome of these two conflicting effects is unknown; all the more so as temporary exemptions possibly required by the EU may possibly delay the completion of the integration process in agricultural trade, while the four applicant countries may also call for a temporary stay in adopting EU standards. Both possible temporary exemptions, and their relative time pattern, may significantly influence the emergence of costs and benefits

attributable to changing relations in the triangular links between the EU, the acceding countries and rest of the CEFTA .

Finally the impact of EU-accession on trade with highly industrialized economies overseas (viz. USA, Canada and Japan) must be addressed. In this respect, accession to the EU will induce costs in the short term since given lower EU tariffs, imports from those countries may crowd out domestic suppliers while access to those markets will not improve in the post-accession period. In the long term that need not be necessarily true. If the concept of a transatlantic free trade zone is accepted one day and ultimately introduced, the acceding countries may enjoy easier access to (Atlantic) overseas market as a result. That, however, is a mixed blessing, as overseas suppliers would also increase competition on EU markets, yielding as yet unknown results due to the two effects for the new entrants' companies.

IV.6.4 Impact on the balance of trade

Acceding to the EU and joining the internal market will change the prerequisites for export and import growth and the resultant impact on the trade flows will be reflected in various ways in the changes in the trade balance. Quantifying trade balances in the post-accession period, the time pattern of these estimated values, the interpretation of trade deficits from the standpoint of the growth process, and, finally, the sustainability of trade deficit were the issues addressed in the country reports.

One project among those reviewed in the country reports focused on the issue of trade deficit. In this study (Orlowski 1997) the author assessed the manner in which various aspects of joining the internal market would exert an influence on the balance of trade.[84]

Details of Orlowski's calculations have already been reviewed above (see p. 88-89). Altogether the increase in the trade deficit with the EU was estimated at USD 2.2 billion and with the rest of the world a further USD 1.9 billion so that total exports would increase by USD 3 billion and total imports by USD 7.1 billion, leaving Poland with an overall trade deficit of USD 4.1 billion.

Orlowski draws attention to the importance of interpreting this trade deficit. Determining whether it is justified to include a larger trade deficit among the costs of accession or to treat it as a negative impact depends on the nature of the deficit. He distinguishes between a trade deficit contributing to long term growth caused by increased imports of technology and a trade deficit which has its roots in larger imports of consumer goods with a minimal growth effect. Nevertheless, after accession the new members will not be able to influence

[84] Country Report: Poland p. 78-80.

the composition of imports any longer as application of all trade policy measures (unless temporary exemptions are granted) will have been banned by that time.

The crucial question relating to trade deficits is, independent of its effect on growth, whether it is sustainable. The very first years following accession are particularly critical in this regard: this has been emphasized not only by the expert opinions cited in the Polish country study, but it was also a prominent feature of earlier enlargements. Trade deficits increase during the initial years of membership owing to the different time patterns followed by export and import growth, the former occurring first and the latter following after some delay.

Orlowski expands the scope of his investigation of the trade balance to include the balance of payments. To his mind the trade balance can only be maintained if the financial transfers from the EU (structural transfers, CAP) and FDI combined can offset the increased trade deficit, thus keeping the external position of the economy in equilibrium.

Although this compensation scheme may seem a good solution to the growing trade balance, the situation is in fact far more complicated. EU transfers and FDI of themselves generate additional imports, thus their value must be sufficient to offset that of the imports they induce and the import surplus generated by other factors.

A good estimation of the trade deficit for each year following accession, coupled with estimates of current account and capital account balances, would be instrumental in providing a tentative indication of the sustainability of the trade deficit. If the estimations predict a rapid rise in foreign debt and the possible threat of insolvency, a set of instruments should be drawn up to address the threat of a serious trade deficit throughout the first years of membership. A key issue in the accession negotiations could be the extent to which such measures could be applied on a temporary basis, should serious imbalances occur after accession.

IV.6.5 Impact of adopting EU standards

Accession to the EU is conditional upon acceptance of the acquis communautaire which compared to regulations prevailing in the applicant countries, prescribes rather strict standards and norms related to such issues as environmental protection, transport, consumer protection and safety in the workplace. Without doubt, introducing these standards will benefit the population in the applicant countries and set in train a modernization process which, otherwise, without external pressure, would probably take much longer. Seen from the narrow angle of foreign trade, however, the application of the EU norms is a mixed blessing entailing more costs than benefits. Among the benefits consumer confidence in the ‘old’ EU countries would probably increase given the

guarantees that the commodities and services offered by suppliers from the 'new' eastern member countries comply with EU levels of quality. That may help to increase exports from the 'new' to the 'old' EU members. Costs, however, will be more significant than gains. Accepting EU standards means that firms are confronted with an obligation to invest in order to reach the standards required or with ever increasing production costs – or in most cases both. This is a natural consequence of levelling the playing field for firms in the 'old' and 'new' EU countries. In the process, the price competitiveness of the eastern suppliers would doubtless deteriorate. A crucial issue is the timing of the adjustment to the EU standards. If the new members are granted no temporary exemptions, all the adjustment costs would emerge in the final years prior to accession. If very short transitory arrangements are put in place new members will have a few additional years in which to apply the stricter norms. The longer the transitory period, the less concentrated the adjustment may be. In any event the new members will face higher production costs after the adoption of standards than before, although costs may differ from branch to branch and within a branch or industry from company to company, depending on the specific technology used. Increased production costs detract from the competitiveness of those supplying the domestic market vis-à-vis importers and puts exporters at a disadvantage in other EU-country markets.

One explicit reference was made to this problem in the country reports. An estimation of the effects of adopting EU standards on Polish foreign trade puts the loss for Poland in terms of decreased exports to the EU at USD 1 billion and to other countries at USD 0.3 billion. (Orlowski 1997, as cited in Country Report: Poland on page.79.) Orlowski reckons with declining competitiveness, for the most part, in exports of agricultural products and transport equipment. At the same time, he expects imports from the EU to expand by USD 0.6 billion and those from other countries by a further USD 0.6 billion.

Losses in the field of trade will also depend on another factor. While new, stricter norms increase production costs, rising productivity can reduce those costs. The time pattern of the emerging costs is especially important in this context. Productivity will grow continuously over the years both before and after accession. If costs accruing from the application of EU norms are distributed over time owing to relatively long transitory periods, preservation of (or only a slight deterioration in) the earlier competitive positions previously held by firms located in the new member countries might be feasible. On the other hand, if the costs related to EU standards are concentrated in time to one or a few years, a sudden drop in competitiveness may lead to eastern firms being 'priced out' of their traditional markets.

This aspect is a crucial factor determining costs and benefits of accession in trade. Regrettably only limited attention has been paid to this issue hitherto.

IV.6.6 Conclusions

A substantial part of the research done in the field of foreign trade addressed the impact of the free trade in manufactures stipulated by the Association Agreements, and not that of the forthcoming accession. A problem common to all studies was the inability to distinguish between the impact due to foreign trade liberalization in the wake of the political changes in the early 1990s and the impact due to the gradual introduction of industrial free trade following the conclusion of the Association Agreements with the EU. The studies made in this field found no trace of a dramatic impact deriving from industrial free trade which should be seen as a warning sign for accession.

The only analysis of the effects of participating in the customs union and the EU internal market was made in Poland. The findings suggest that as a result of various processes Poland's trade deficit will grow, since the rapidly expanding foreign trade turnover will have different time patterns in terms of exports and imports. Polish producers will have to absorb the additional burden of adopting EU standards and norms. Productivity growth was found to be decisive to maintaining the competitiveness of the domestic firms in times of increasing competition. A supportive macro-economic environment should thus be created by pursuing predictable economic policy and introducing deregulation and privatization.

Trade deficits can be envisaged in the three other countries as well. The nature of the deficit is of special importance. Deficit through massive imports of capital goods in the wake of rapid modernization cannot be judged in the same way as deficits arising out of excessive consumption. In any event, the crucial issue is the sustainability of deficits. This problem is certainly embedded in the broader issue of the current account and the manner in which current account deficits can be financed. Without doubt, current account deficits related to modernization will be easier to finance. But even ‘good’ deficits may become unsustainable and this threat deserves special attention, especially in the initial years of EU membership. It may possibly necessitate the introduction of provisional regulations to provide tools to counter the possibility of grave current account difficulties being experienced by the new member states in the early years of their membership.

V. Summary, conclusions and recommendations

V.1 Summary and conclusions

V.1.1 General methodological issues

In the country reports elaborated in framework of this PHARE/ACE research project on the ‘Measurement of costs and benefits of accession to the EU for selected CEECs’, a number of research projects initiated and completed in the four countries were discussed and evaluated. A cross-country comparison of the projects reviewed in the individual country reports shows that research teams and individual authors investigating the costs and

benefits of accession to the EU have tried to answer practically the same questions in each of the four countries. Observance of tradition and conceptual differences, however, resulted in varying methodological approaches.

In Slovenia as far as the theoretical basis of the analysis of various issues related to the costs and benefits of accession was concerned, there was a pronounced inclination towards applying a quantitative approach to all associated problems. Newly initiated projects were often based on the methodology and findings of earlier projects: innovative solutions to problems were presented, incorporating recently available data and information on the national economy or conditions of accession.

In Poland, the quantitative approach was not as widespread as in Slovenia. Several papers on the costs and benefits of Poland's accession to the EU applied a qualitative/descriptive approach rather than modelling.

In Hungary modelling was more the exception than the rule. As the author of the country report on Hungary comments, it is worth contemplating why economists in Hungary who work with econometric models do not apply themselves to such a current problem as their country's EU accession or why those economists who do work in that field fail to use econometric models. In any event, with the exception of agriculture, the methodology used did not extend beyond simple arithmetic.

In the Czech Republic the all too meagre research findings available prevent any general conclusions being made about the country-specific methodological approach. This situation has since started to change, but results are yet to be forthcoming.

V.1.2 Institutional aspects

The research projects analysed in the individual country reports were often initiated and financed by politically relevant institutions (mostly government bodies) in the countries concerned. Despite this fact, the authors of the country reports did not find any explicit case of politically biased research results. (That could have been the case, had the costs or benefits of accession been excessively emphasized). Nevertheless the authors of the country reports analysed selected projects where priority had been given to quantitative estimates. It cannot be excluded that among the projects not selected for investigation politically biased research was also undertaken. Furthermore, it is also possible that in one or another way politically inconvenient findings were withheld from the public or the research was classified confidential from the outset. With the beginning of the accession negotiations, this latter approach may become increasingly common, all the more so as research results may serve as an important tool in the bargaining process on the scope, timing and concrete details of temporary exemptions.

V.1.3 Overall balance of costs and benefits

The projects analysed in the four country reports were mostly written between 1995 and 1998. In many cases, the calculations relied on the assumption of membership in the period between 1999 and 2002. The longest interval taken into consideration extends to the year 2006. Although, in Agenda 2000, the year 2002 is earmarked as a working hypothesis for the accession of the first five eastern applicant countries, the uncertainties concerning the internal reforms of the EU and the readiness of the incumbent countries to accept a new redistribution of sources with substantial changes in net financial positions make this date hypothetical. Given the degree of uncertainty about the date of accession, no clear assessment can be made concerning the duration of the pre-accession period and the scope of the adjustment process that must be implemented prior to accession. After the publication of the proposed financial framework for the years 2000-2006, it is clear that the costs of adjusting to EU requirements will be covered by EU transfers only to a very moderate extent – both in the pre-accession period and during the first one to three years of membership. This alone calls for the assumption of a possible delay in the accession date (compared to 2002, the Agenda's working hypothesis) and a longer time horizon for any future cost benefit analysis of accession.

The proper treatment of the time horizon was a major methodological problem for those projects using models. Most attempts to measure the costs and benefits were confined to capturing the static effects. Nevertheless, hints in the (Slovene and Hungarian) country reports at ongoing research designed to overcome this problem give some cause for optimism that in future dynamic effects will also be captured in the models applied (for more, see M. Strapec's contribution to this project)[85]

As presented in various chapters of this comparative paper, the potential for uncertainty in all the special facets of accession selected for our project is huge. This uncertainty derives from the many possible outcomes of EU internal reforms and the lack of clarity prevailing about the scope and details of any temporary exemptions to be agreed upon for the candidate countries and the EU alike. The estimates of costs and benefits of accession in the field of agriculture provide the best illustration of this uncertainty. In the field of trade, the free-trade agreement (for manufactures) incorporated in the Association Agreements ensures that many of the integration effects are surfacing well before accession takes place.

The uncertainty surrounding the main assumptions in the projects analysed exerted a negative influence on the robustness of research results. To the merit of the authors

[85] Strapec, M. (1999) *Models used and to be used in cost benefit evaluations of the eastern enlargement. Technical report* (mimeo) Vienna.

involved, especially of those who applied models, they warned the readers of the constraints upon the utility and practicability of their research findings.

As for the question whether the balance of costs and benefits is at all positive (in both the short and medium term) in the segments selected for investigation, the research results fail to provide a unanimous answer. Both models focusing on the agricultural sector and simple calculations ultimately came up with scenarios that predict both a negative and a positive balance of costs and benefits, depending on the changes in the assumptions used (e.g. assumption as to the availability of compensatory payments). In the case of structural assistance, the net gains from gross transfers turned out to be quite limited, and if 'phasing in' takes place as recommended in Agenda 2000, net gains in the first one to three years of membership from this source may well be marginal or, under unfortunate but not fully unrealistic circumstances, even non-existent.

The uncertainty concerning the balance of costs and benefits is not a consequence of methodological problems of measurement. It is the variability of the assumptions drawn that makes it impossible to arrive at clear conclusions about the balance of costs and benefits. This compounds the difficulties that eastern negotiators will face at the accession talks as soon as the really problematic issues appear on the agenda. A crucial question relates to the manner in which progress in EU internal reforms, primarily those concerning the CAP and transfers, will be synchronized with the respective stages of the accession talks. Should the respective chapters of the accession be closed before the reforms are adopted, the eastern applicant countries will be left without any clear perception of either costs or benefits and their balance. At the same time, they will be assuming an obligation to accept the results of as yet uncompleted reforms without having had an opportunity to influence the same. Should these reforms be completed early enough (before final and binding decisions are made), the prerequisite for usable costs and benefits calculations may improve to a considerable extent.

V.1.4 The political environment

An investigation of the political environment related to the eastern enlargement was not among the targets of this research project. However, it cannot be ignored in any analysis of current thinking and opinions on costs and benefits in the four countries concerned. It is first very much a question of prestige, which of the ten eastern applicant countries will be allowed to accede. Early accession is regarded as a political success per se. This attitude is evident in two particular instance in the countries' relations with the EU: first, the repeated emphasis that the costs of eastern enlargement for the EU incumbents will not be exorbitant and benefits considerable; second, mandatory implementation of the acquis communautaire (with all the related costs) is a manageable task for the applicant countries. In the latter respect, the dilemma of the governments in the eastern applicant countries is

obvious: on the one hand, if too many temporary exemptions are required, it may well indicate their inability to make the necessary adjustments in a relatively short time, and the 'wrong message' would thus be sent to Brussels.

On the other hand, if adjustment costs are neglected, it may well prove very expensive in the domestic policy area at a later juncture. To make matters even more complicated, governments in the applicant countries must be seen to be fighting on two fronts at once. In addition to convincing the EU about their countries' ability to join, they must secure domestic support for the accession. A clear assessment of the associated accommodation costs and the uncertainties prevailing in decisive accession issues would hardly be conducive to rallying an increasing number of supporters of EU accession in any country. In conclusion, the political environment is anything but in favour of the applicant governments objectively treating the 'costs and benefits' issue and informing their constituents. The major question whether the applicant governments are able to maintain a clear distinction between (i) what they want to communicate to Brussels and the public in their own countries, and (ii) the prescriptions for the strategy and tactics to be pursued by their delegations negotiating at the accession talks.

V.1.5 Alternative scenarios

None of the four countries has elaborated scenarios that reckon with serious economic (and related political) problems right after accession. In the research team, opinions diverged on the likelihood of such problems emerging. Adopting an optimistic approach, neither the findings of the country reports nor other available sources of information on the enlargement process give cause for concern in this respect. Never in the history of the European Union's earlier enlargement has a major crisis emerged related to a new member's accession. There is no reason to suppose that the forthcoming enlargement will differ in this regard.

Adopting a less optimistic approach, even if the emergence of such problems is considered a relatively unlikely possibility, it would be expedient to develop tools to identify looming problems and draw up a scenario for overcoming a possible crisis related to EU-accession.

First and foremost, the research results from the cost/benefit analyses are anything but robust. Given to the degree of uncertainty in many relevant areas of accession, this will not change in the near future. The assessment of the balance of costs and benefits presumed prior to accession and used as working hypothesis in the course of the accession negotiations may, in the first year of membership, turn out to be wrong. Substantially higher-than-originally-anticipated costs may jeopardize the fiscal balance and any successful moves to reduce inflation. This could, in turn, increase operational costs in the business sector exerting a possible recessionary impact, and lead to unsustainable deficits

in the current account. If accumulated problems due to excessive costs exceed a certain threshold, the governments involved may feel compelled to renegotiate or, if this proves impossible, to revise and postpone on their own accord the fulfilment of obligations they assumed during the accession negotiations.

Secondly, even if the costs and benefits under the negotiated conditions are globally balanced, a mismatch in their time patterns may occur. This poses a real threat in the first one to three years of membership, when transfers will be minimal due to 'phasing in' but accommodation costs will probably be highest. This mismatch may also trigger serious problems in the new member countries.

Critical situations may appear as a result of (possible) deliberate negotiation tactics adopted by the eastern applicant countries. If they perceive the EU as being unwilling to accept compromise in some 'costly' items, the eastern applicants may formally undertake to satisfy the offered conditions with the ulterior motive that once they are 'in', they will either manage somehow or, given the emerging problems, claim their entitlement to reschedule the negotiated adjustment process.

In the ultimate analysis, the memory of the 'transformation recession' in the early 1990s should serve as a warning in this respect. Very few experts reckoned with the enormous costs (in economic and social terms) incurred by the transition from a planned to market economy. Everything should be done to avoid a second major shock in a historically short period.

V.2 Recommendations

V.2.1 Introduction

Although our recommendations are concerned exclusively with the approach to studies of the costs and benefits for the CEECs on joining the EU, we would at this juncture like to stress that the economic aspects are only part of a much broader process of political integration. When Konrad Adenauer, Alcide de Gasperi and Robert Schuman together with Jean Monnet launched the idea of forming the European Coal and Steel Community and when the EEC and EURATOM were created in 1958, the fundamental objective of the founding fathers was to bring peace to Europe after two devastating 'civil' wars. The aim was political and the means were largely economic.

The aim was, in fact, to bring peace and stability to a continent which had been the scene not only of the two World Wars but, in the 19th century, had also witnessed Napoleon's attempt to conquer Europe as well as the Franco-Prussian war of 1870 which resulted in the humiliation of France and the loss of Alsace-Lorraine.

With respect to economic and monetary integration, the European Union has been extremely successful not only in terms of signing the initial treaty, but also during subsequent decades.

– The trouble-free adoption of the Single Act and the subsequent adoption of some 300 EC directives aimed at eliminating a host of technical barriers to trade in goods and services;
– The liberalization of capital movements, the 1988 budgetary agreement, the Maastricht Treaty on the EMU; and
– The agreements on the introduction of the euro by January 2002 at the latest constitute significant milestones on the path towards creating a fully integrated economic and monetary union in Europe.

However, the very fact that the EU in practice has been mainly confined to matters of economic and monetary integration does not fundamentally alter its character as essentially a political venture. Admittedly, the first enlargement, at least by the United Kingdom and Denmark, was motivated mainly by the desire to join the common market. However, the accession of Greece in 1981 and that of Spain and Portugal in 1986 were largely inspired by the aim of consolidating democracy in those countries and allowing them to join the mainstream of European politics.

With respect to the accession of Finland, Austria and Sweden, those countries had already obtained many of the benefits of economic integration by virtue of the European Economic Area agreement. Their application for full membership was, therefore, largely motivated by the desire to participate in the construction of a political union.

Furthermore, it cannot be doubted that the CEECs' decision to apply for membership, like the applications from Greece, Spain and Portugal, was taken largely for political reasons: the perceived need to consolidate democracy and participate fully in the construction of a European political and military security system.

Given that the main 'benefits' of enlargement are of a political nature, the present final report, as already stressed in the introduction, in no way claims to provide a 'blueprint' for assessing the overall results of the integration process. The latter process also involves integration into the European defence and security system, ultimately entailing, for most countries, membership in both NATO and the WEU. We, therefore, do not pretend to have provided a tool for taking decisions concerning EU membership, but only a tool for weighing the economic and financial consequences of such decisions.

V.2.2 Costs and benefits of joining EMU

In essence, any assessment of the effects of joining the EMU entails estimating the implications for the domestic economy of first satisfying the three basic conditions for monetary union outlined:

– Full currency convertibility;

– Free capital movements; and

– Locking the exchange rate

Thereafter the implications of respecting the Maastricht criteria as well as the associated stability pact have to be assessed.

The assessment of costs and benefits of joining the EMU will thus aim at weighing the domestic economy's capacity to adjust to a new set of framework conditions against the potential reduction in inflation and nominal interest rates as the national currencies are replaced by the Euro.

Although the capacity to adjust to the irrevocable fixing of the exchange rate vis-à-vis the euro will be a major problem, the still greater problem is that of ensuring the flexibility of product and labour markets. It is, therefore, essential to formulate an informed, quantified and coherent view of the formation of wages and prices, their sensitivity to competitive pressures, the degree of wage indexation, the fiscal and monetary reaction coefficients and the reaction of the economy to supply shocks. In order to avoid subjective and qualitative reasoning, assessments of the effects of EMU should in general rely on simulations of macro-econometric and general equilibrium models. We therefore recommend that candidate countries attach high priority to developing such models.

However, our review of studies of costs and benefits of integration shows that few if any studies have been made so far of this basic implication of EU membership.

We are aware of the large statistical and technical difficulties hampering such work. In particular, we are conscious of the fact that over the past ten years the candidate countries have experienced comprehensive structural realignments, shifts in the structure of foreign trade, upheavals in the labour and product markets. The past experience is, therefore, not a very useful guide to the future path of any adjustment process. Consequently, macro-econometric models will need to be estimated on the basis of relatively short (and frequently unreliable) time series and data on the structure of the productive system.

Nevertheless, in our view there is no credible alternative to using of macro-econometric models for the purpose of analysing essential macro-economic phenomena. Institutions in current EU members have considerable know-how and experience in the field of model

building. Both the OECD, the European Commission and the IMF have developed comprehensive macro-econometric models, which could well be used as the international platform for national models for the candidate countries.

We would stress, however, that the development of econometric models should not be considered a mere 'academic' exercise. In fact, policy-makers must have direct access to tools for quantifying and simulating policy proposals, including, but not solely limited to basic decisions on EMU membership. In addition, even after EMU membership, domestic policy decisions may be necessary in order to ensure compliance with the Maastricht criteria and the Stability Pact. Such decisions should rely on a certain measure of quantification, which can only be achieved through the use of (even rudimentary and uncertain) econometric models.

Recommendation N° 1: *Candidate countries should attach a high priority to developing macro-economic and general-equilibrium models. This should preferably be done on the basis of the international macro-econometric models run by the OECD (Interlink) and the European Commission (Hermes). However, if they are to be of use to economic-policy makers, the models should acquire official or semi-official status and be developed within public or semi-public institutions and/or with publicly determined terms of reference.*

V.2.3 Effects of applying the CAP

As already suggested in chapter IV.4.1, assessment of the costs and benefits of application of the CAP is a highly complex venture, requiring the formulation of a view on the state of and future development of supply and demand in a large number of market segments, the development of the CAP itself, the reaction coefficients of consumers. Owing to the fact that the CAP operates at the level of individual product markets and with specific rules of the game for each product, the task of estimating costs and benefits of accession in this area is a daunting one.

As emphasized in Chapter IV.4.5, most of the quantified estimates of the effects of the CAP in fact provide partial and static or, in some other cases, highly aggregated results. This is unfortunate but not surprising in view of the difficulties of taking all aspects of the adjustment process into account.

Whereas large-scale general equilibrium modelling of the process of adjustment to the CAP must be considered an overly ambitious objective, useful estimates can be produced by adopting a step-by-step approach. This approach may start with a static analysis of the structure of the sector, domestic production and foreign trade and the direct consequences (with given quantities) for farmers and consumers of applying a new set of producer prices for agricultural products.

In order to ensure transparency and consistency in the process of producing consistent estimates, the second phase could therefore involve the calculation of various scenarios involving different assumptions concerning such matters as:

– the growth of productivity in the different segments of agriculture,

– the evolution of national agricultural prices in the period up to accession,

– the evolution of the CAP itself (the 'moving target approach'),

– costs to households of different assumptions concerning the increase in consumer prices.

Examples of this approach are found in Poland and Slovenia and could be replicated in other CEECs.

Recommendation N° 2*: Owing to the lack of data and, notably, the lack of insight into the functioning of supply and demand for different agricultural products, assessments of the costs and benefits of the CAP are extremely difficult to make. We would therefore recommend a cautious step-by-step approach. Whereas scenario calculations in general are useful as a means of demonstrating the sensitivity of results to changes in the underlying assumptions, we would recommend an extensive use of this approach when assessing the effects of applying the CAP. This would be the appropriate approach at both the micro- and macro levels of the economy.*

V.2.4 Transfers from the Structural Funds

The operations of the EU Structural Funds involve a certain amount of transfers from the EU budget to regions with a GDP at or below 75% of the EU average (calculated at purchasing power parity). However, with the exception of the Cohesion Fund, the transfers from the Structural Funds accrue as financing of agreed projects and, in most cases, with co-financing from national sources. Furthermore, the stated objective of the Structural Funds is to contribute to a process of self-sustained growth in the regions concerned and not (at least not principally) to provide subsistence payment to low-income areas and countries.

Assessing the costs and benefits of the EU structural policies (as this policy is frequently designated in the EU terminology) thus involves estimating, at the macro-level, the effects on GDP, employment, balance of payments and the like. It is also essential to take account of the nature of price and wage formation and, notably, the risk that owing to market rigidities the transfers might fuel of inflation.

Similar to assessing the effects of EMU, the compilation of consistent assessments of the macro-economic effects of transfers from the Structural Funds would clearly benefit from

the use of a macro-econometric model. Model-based calculations, in particular, will permit a study of the sensitivity of the results to changes in the basic assumptions concerning, for example, the import propensity of the investments financed with assistance from the Funds and, thus, the net effect on domestic activity and incomes. Only through calculations based on a macro-econometric model will it be possible to take account of the interaction of the different variables and the associated policy parameters.

However, in the case of the Structural Funds it is desirable to capture effects at the micro-level. This will include such effects as the influence on the regions' growth potential, the scope for and the speed of 'catching up': i.e. reducing the gap between the EU average and the regional per capita GDP.

Conceptually, the calculation of such micro-economic and 'meso-economic' effects could be enhanced with the help of a general equilibrium model. However, as already indicated, such models are normally based on a simplified assumption of full competition and full employment. This assumption is normally not fulfilled in the regions receiving assistance from the Funds. Furthermore, regional statistics even within the EU are not sufficiently detailed to permit more than rudimentary quantification of costs and benefits at the level of the individual product and labour markets. It is, nevertheless, desirable to raise the issues at this level of analysis and, wherever possible, base the reasoning on a consistent logical framework.

Recommendation N° 3: *Assessment of the costs and benefits of transfers from the Structural Funds should be undertaken in two phases, firstly by producing estimates of the macro-economic impact through simulations with a macro-econometric model; and secondly, by analysing the micro- and meso-economic effects. The latter should be done with the highest possible degree of quantification but it is doubtful whether sufficient data on the economy in different regions are available that would permit general equilibrium estimates.*

V.2.5 Analysing costs and benefits of joining the customs union

As indicated above, it is impossible in practice to separate the assessment of costs and benefits of joining the customs union from the analysis of the transition to a market economy in general and the trade liberalization due to WTO membership, the application of the Europe Agreement, etc. Nevertheless, there is both scope, and tools exist, for a thorough analysis of structural changes in foreign trade, including in particular scenario calculations with the aim of illustrating the effects of various assumptions and policy measures.

We recommend that the analysis of foreign trade developments and prospects be undertaken in four phases:

– A detailed descriptive analysis of the present structure, geographical pattern and level of tariffs of foreign trade;

– Assessment of the scope for further changes in the pattern of trade (including the scope for trade creation and diversion) using, inter alia the gravity model and coefficients of correlation with the trade of EU member states (such as presented in a paper by Gros and Vandille reviewed in the country report on Slovenia[86]);

– Partial analysis of different aspects of the integration process not readily taken into account in modelling exercises;

– Simulation of the effects of tariff changes using econometric and general equilibrium models;

To our mind a descriptive analysis is a staple of all assessments of integration effects. However, since trade analysis is essentially a micro-economic exercise, it is a particularly important to formulate views on the present state of competition in different parts of the domestic market (protected and exposed sectors). It is also desirable to determine whether trade at the outset is hampered by such factors as lack of standardization or insufficient norms for consumer protection. This analysis will then form the basis for assessing the scope for significant changes in the trade flows, by commodity and country brought about by the elimination of trade barriers in phase two.

The analysis of potential changes in the commodity structure and geographical pattern of foreign trade does not, of itself, allow conclusions to be drawn about 'costs and benefits'. It does, however, provide useful insight into the degree of openness of trade at the outset and the scope for shifts in response to changes in the rules of the game in foreign trade and economic growth in the economy concerned and to changes in trading partners. As such it can be considered complementary to a more conventional analysis of aggregate developments in exports and the imports and balance of payments prospects.

As illustrated in the comprehensive study of the potential effects of the completion of the EU internal market (the Cecchini Report), if it is to be complete any analysis of market integration needs to formulate a view of many features which are not normally dealt with in conventional economic analysis. This includes such issues as:

– Eliminating a number of regulatory barriers, including border controls;

– Measuring the 'dynamic effects' by assuming increasing competition;

[86] See also the pertinent and comprehensive discussion in Breuss, F. (1998/b) *CGE Model Estimations of Costs and Benefits of EU Enlargement: A Survey*, presented at the IIASA Workshop on 'The Time Pattern of Costs and Benefits of EU Accession', Laxenburg, 3-5 December 1998 (Mimeo, WIIW, Vienna).

– The potential for gaining economies of scale

– Productivity gains through restructuring;

– Reduction of profit margins (with benefits for consumers) in branches which will be exposed to foreign competition.

The final phase would then involve (re)using general equilibrium models (CGE) for additional simulation of the effects of trade integration. Wherever feasible, existing CGE models such as the Michigan CGE Model or the GATT/WTO CGE model[87] should be used for a new set of simulations and we recommend examining the possibility of adapting and calibrating the Keuschnigg-Kohler CGE model[88] so as to capture the main features of the candidate countries' economy.

Recommendation N° 4: *Notwithstanding the fact that upon analysis the effects of trade integration upon accession cannot be distinguished from the overall effects of trade liberalization, we recommend that a careful analysis of the costs and benefits of trade integration be undertaken in four main phases. This would include descriptive analysis, analysis of the potential for changes in the commodity structure and geographical pattern of exports and imports, partial analysis of sectoral aspects and, if feasible, simulations based on CGE models.*

V.2.6 Other aspects of application of the acquis communautaire

Throughout this project the detailed assessment of the methodology used to estimate the cost and benefits of EU membership for the CEECs has focused on the effects of the EMU, application of the CAP, the Structural Funds and trade integration. However, as indicated earlier in this paper, the costs and benefits of accession will also include a number of other effects not reviewed in detail in this report.

As underlined in Agenda 2000 this includes such areas as:

– Implementing environmental standards;

– Adapting fully to the standards and rules of safety in the field of transport;

– Adopting the *acquis* with respect to energy and nuclear safety;

– Adopting rules and regulation with respect to consumer protection, health and safety at work,

– Obtaining access to a number of EU programmes (research & development, small- and medium-sized enterprises (SMEs).

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87 For a comprehensive discussion of results of simulations using these models see Breuss (1998/b).

88 Breuss, (1998/b) page 21-24

In each of these and several other less important areas there is a need for a careful and detailed assessment of the costs and benefits for public authorities, consumers and enterprises of adopting the acquis, including also an assessment of the development of the effects over time. We are keenly aware of the difficulties in attempting to quantify many of these effects. However, in order to avoid placing an undue burden on an enterprise sector already under heavy pressure to adapt to competition in the world market, governments and negotiators should be as well informed as possible of the scope for and consequences of different profiles of transitional arrangements.

In most of these areas the costs accrue as financial burdens for public authorities and/or increased costs for enterprises while the benefits are partially or wholly of a non-financial nature, such as increased safety of nuclear installations and enhanced protection of consumers or female workers. Since the latter cannot be quantified, it is conceptually not possible, nor indeed desirable, to aim at an overall assessment of the 'balance' of costs and benefits of accession. Our final recommendation, therefore, is to avoid any 'globalization' of the cost and benefit calculations.

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