

## Chapter 3

# TRADE INTEGRATION AND CROATIAN ACCESSION TO THE EUROPEAN UNION

Vedran Šošić  
*Croatian National Bank*  
*Zagreb*

Boris Vujčić\*  
*Croatian National Bank*  
*Zagreb*

## ABSTRACT

This paper assesses the trade criteria for EU membership and the extent to which Croatia fulfills those criteria. The relationship between trade criteria and the economic ability to pursue EU accession is discussed and a gravity model of Croatian trade is constructed in order to measure the level of trade diversification achieved in an objective manner. Significant trade biases towards the former Yugoslav republics are found as well as an emerging bias in imports from Central and Eastern European countries (CEEC). Moreover, the process of trade liberalization that was promoted recently did in general not significantly contribute to trade diversification towards countries with which preferential trade agreements had recently been concluded, rather reinforced existing biases, although there are some differences between export and import flows. In order to mitigate the consequences of delays in the integration processes, reduce long-term costs of trade restructuring and encourage the trade

*\* The views expressed in the paper do not necessarily reflect the views of the Croatian National Bank. The authors would like to thank the referees who anonymously reviewed this paper.*

integration with the EU necessary for successful accession, Croatia should seek to eliminate the remaining institutional barriers to trade with the EU. Also, the continuation and faster implementation of structural reforms are necessary preconditions for an increase of openness in trade.

**Key words:**

trade integration, preferential trade agreements, gravity analysis, Croatia

## INTRODUCTION

The fall of the Iron Curtain and the subsequent integration of CEEC into the EU economy can probably best be traced through the dynamics of trade integration. The conclusion of Association agreements<sup>i</sup> in mid-1990s liberalized trade among them and created the opportunity for the expansion of bilateral trade. The transition countries that were the fastest and most successful in implementing economic reforms also managed to make the best use of the new opportunities to expand trade. However, the level of trade integration was not just an indicator of progress in economic integration; the European Commission also used the level of trade integration achieved, amongst other things, as an indicator of the ability to pursue further integration into the EU. Moreover, some researchers used measures of trade integration in order to estimate in an objective manner whether candidates were fulfilling EU accession criteria. However, trade integration was not always a success story. Fears of rapid expansion of labor-intensive imports (so called “sensitive products”) from the CEEC and resulting employment losses in labor-intensive industries prompted the EU to keep barriers on imports of sensitive products. Thus EU policies towards the candidates did not always support rapid and complete integration.

This paper aims to identify the progress Croatia has made in economic integration with the EU. Croatian progress in trade integration requires particularly careful assessment because of the importance of trade integration with the EU for the overall economic integration of the CEEC. The consequences of delays in the integration processes on the part of Croatia are discussed and proposals for policies to reduce the biases identified in Croatian trade patterns are provided as well. In the first chapter the economic criteria for EU accession and the role of trade integration in fulfilling those criteria are discussed. In the following chapter

trade integration is placed within the framework of transition. The role of trade integration in the transition of the CEEC is explored using standard indicators of trade integration with the old EU member states. In addition to this, the results of more sophisticated studies based on gravity analysis of trade flows are presented. Further on, a gravity model of trade flows is utilized in order to assess the trade integration of Croatia with the EU and the biases that characterize Croatian foreign trade. Finally, we conclude by proposing policies to reduce identified biases.

## **TRADE INTEGRATION AND ECONOMIC CRITERIA FOR EUROPEAN UNION ACCESSION**

The European Council in Copenhagen in 1993 decided on a number of criteria for accession to be met by applicant countries. These “Copenhagen criteria” constitute political and economic requirements for membership and requirement of the ability to assume obligations arising from membership or institutional capacity for membership. Economic criteria are defined as “the existence of a functioning market economy” and “the capacity to cope with competitive pressures and market forces within the Union” (European Commission, 2001). Fulfillment of the first criterion, the existence of a functioning market economy, is necessary before the Council can make a positive decision on accession, based on the opinion of the Commission, while it is important that the second criterion, if not yet fulfilled, can be expected in the near future, between the positive decision taking place and the actual moment of accession.

Although straightforward interpretation of the economic criteria might envisage an examination of trade integration between potential candidates and the Union, the Commission actually seeks for a mixture of different, more and less measurable, characteristics of the candidates’ economies. Concretely, in the first economic criterion, the Commission seeks to assess whether (1) an equilibrium between demand and supply has been established by the free interplay of market forces and whether prices, as well as trade, are liberalized; (2) significant barriers to market entry (establishment of new firms) and exit (bankruptcies) are absent; (3) the legal system, including the regulation of property rights, is in place, with laws and contracts being enforce-

able; (4) macroeconomic stability has been achieved, including adequate price stability and sustainable public finances and external accounts; (5) there is a broad consensus about the essentials of economic policy; and finally (6) the financial sector is developed sufficiently well to channel savings towards productive investment. The ability to cope with the competitive pressures within the Union is a stronger criterion than the existence of a functioning market economy. It assumes (1) the existence of a functioning market economy, with a sufficient degree of macroeconomic stability for economic agents to make decisions in a climate of stability and predictability, which is the first requirement for the fulfillment of that criterion. In addition to this, the second criterion assesses (2) the existence of a sufficient amount, at an appropriate cost, of human and physical capital, including infrastructure (energy supply, telecommunications, transport, etc.), education and research, and future developments in this field; (3) the extent to which government policy and legislation influence competitiveness through trade policy, competition policy, state aid, support for Small and Medium-sized Enterprises, etc.; (4) the degree and the pace of trade integration a country achieves with the Union before enlargement (this applies to both the volume and the nature of goods already traded with member states); (5) the proportion of small firms, partly because small firms tend to benefit more from improved market access, and partly because a dominance of large firms could indicate a greater reluctance to adjust (European Commission, 2001).

As the Commission assesses eleven listed conditions in a subjective manner, its opinions have been subject to criticisms. This subjectivity is evident since the final verdict is not clear until one gets to the conclusion of the Commission's opinion. Nilsson (2000) tries to formulate economic criteria for EU accession more objectively. In accordance with the definition employed by the Commission, Nilsson interprets the Copenhagen criteria as a high level of trade integration. Attainment of a sufficiently high level of trade integration, according to Nilsson, at the same time means successful penetration of the markets of Western European countries and therefore the ability to withstand competitive pressures on those markets. The Commission assesses the level of trade integration within the second economic criterion, or the ability to cope with the competitive pressures within the Union. However, it is only one of several indicators Commission uses vaguely to describe fulfillment of the required criteria. In order to avoid subjective judgment on sufficiency or insufficiency of trade integration, Nilsson utilizes the gravity approach to the analysis of trade flows in

order to derive trade potentials. Nilsson then compares trade potentials inferred from the gravity analysis with the actual trade level (see Box 1 for detailed elaboration of the gravity approach).

The following chapter elaborates why it is possible to use the difference between the actual trade flows and trade potentials as an indicator of progress in transition and the ability to integrate successfully into the EU. Further on, the results of studies that use the gravity approach to assess the level and evolution of trade integration between CEEC and the EU from the period preceding the transition until the late 1990s are presented. The gravity approach has some serious limitations and it is therefore not possible to rely on that approach only in order to draw a complete picture of the competitiveness of the economy, especially if there are imbalances between merchandise exports and imports, as there are in the case of Croatia<sup>ii</sup>. Therefore, other methods are sometimes employed in order to evaluate the competitiveness of the economy, such as comparative advantages revealed, indicators of sectoral concentration and differentiation of trade (or trade specialization) and indicators of intra-industry and inter-industry trade (Astrov, 2001).

### **Box 1 The gravity approach to the analysis of trade flow**

Gravity models take care of some open issues arising from the trade openness and trade pattern comparisons that are routinely used by the European Commission in their assessments and it is therefore quite a sophisticated approach. Gravity models utilize economic potentials and trading costs, usually approximated with geographic distances, in an analysis of bilateral trade flows or in order to estimate trade potentials between pairs of countries. A gravity model is usually estimated over a pool of countries for a number of years using cross-section or panel methods. However, because we are solely interested in the pattern of Croatian trade, we shall rely on a single-country equation. A single-country specification, apart from serving our aim well, also avoids some troubling specification problems that arise in pooled estimations. First, differences in the relative remoteness of trading partners produce systemic biases that depend on the location of a specific country (Brenton and Di Mauro, 1998). Furthermore, the issue of heterogeneity of the countries may also be alleviated with a single-country specification, which is the reason some studies use such specifications. The gravity equation that we estimate, in its simplest form, is the following semi-log specification:

$$TR_i = \beta_0 + \beta_1 BDP_i + \beta_2 UDALJ_i + \sum_k \gamma_k D_{ik}$$

where  $TR_i$  stands for the natural logarithm of the trade flow<sup>iii</sup> between the Croatia and country  $i$ ,  $GDP_i$  for the natural logarithm of the gross domestic product of the country  $i$ , measured at exchange rate parity and  $DIST_i$  for the distance between Zagreb and the capital of country  $i$ . Using road distances would probably be more justified than using air distances because most goods are transported to Croatia by the road, but that would exclude overseas countries and therefore significantly reduce the number of observations. Finally,  $D_{ik}$  stands for dummies for different groups of trade partners (old EU member states, CEEC<sup>iv</sup> and former Yugoslav republics, individually), while other studies in this field use those variables also to isolate the impact of preferential trade agreements, adjacency or language similarity, which decrease the costs of engaging in international trade.

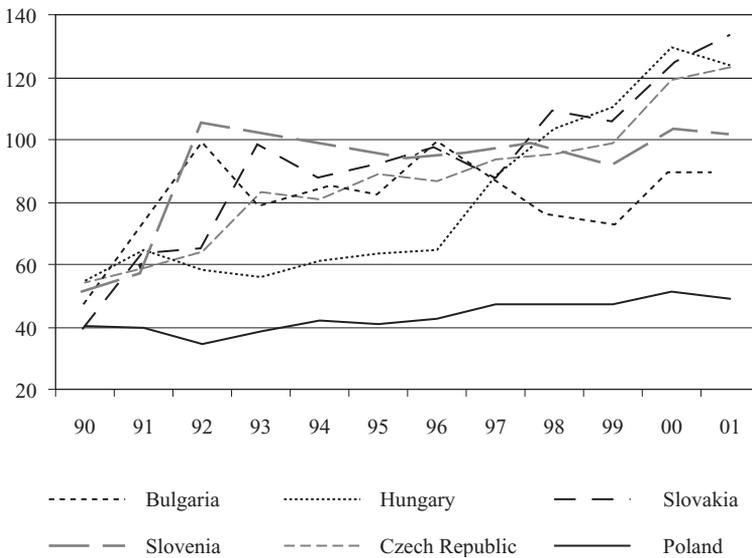
The gravity approach was launched as a more or less “atheoretical” approach to the analysis of trade flows. However, the idea of using economic potentials and trading costs in an analysis of bilateral trade flows proved to have deeper theoretical roots than was thought at first. Frankel (1997) surveys literature that tried to root the gravity approach in different theoretical rationales, the Heckscher-Ohlin model as well as the theory of imperfect substitutes. The establishment of the theoretical foundations of the gravity approach also contributed to some extensions of the model, an important one being the inclusion of “similarity” or “dissimilarity” variables to test for the relevance of different trade theories. Although compatible with the range of trade theories, the gravity approach remains unable to predict trade structure – a composition of the goods a country is supposed to import and export. In order to get an answer to that question, one has to look into the underlying theory of trade.

## TRANSITION AND TRADE INTEGRATION

At the onset of the transition, three distinct forces were shaping the trade pattern of a typical transition country. First, policies of stabilization, liberalization and privatization removed most of the existing barriers to their international trade and made possible an increase in trade openness. Further on, the collapse of the Council for Mutual Economic Assistance (COMECON), a trade block comprising the Soviet Union and the CEEC, contributed to the creation of a new economic geography and diversification of the excess trade that existed

within that trade block. Finally, the dissolution of multi-national states like the USSR, the Czech Republic and Yugoslavia, immediately increased the openness of the new countries by turning what had previously constituted internal trade into international trade. However, the creation of borders and the barriers they create worked in the opposite direction. New borders decreased the level of trade between the newly independent states, if the formerly internal trade is also considered<sup>v</sup>.

*Figure 1 Trade openness ratios of selected transition countries (ratio of total trade in goods and services to GDP, in %)*



Sources: WIIW (1997; 2000; 2003).

Before the transition process started, the transition countries were relatively closed economies except for the trade flows that existed among them. This was a consequence of the restrictions imposed by central planning, and of the planners' aspirations to insulate the country from influences of the world economy. All those countries had complicated regulations concerning foreign trade, foreign currency transactions and capital account controls, so it is not surprising that many studies find them to be less involved in international trade than the countries of Western Europe (see, for example, Havrylyshyn and Pritchett, 1991; Baldwin, 1994; Winters and Wang, 1994). Restrictive regulation

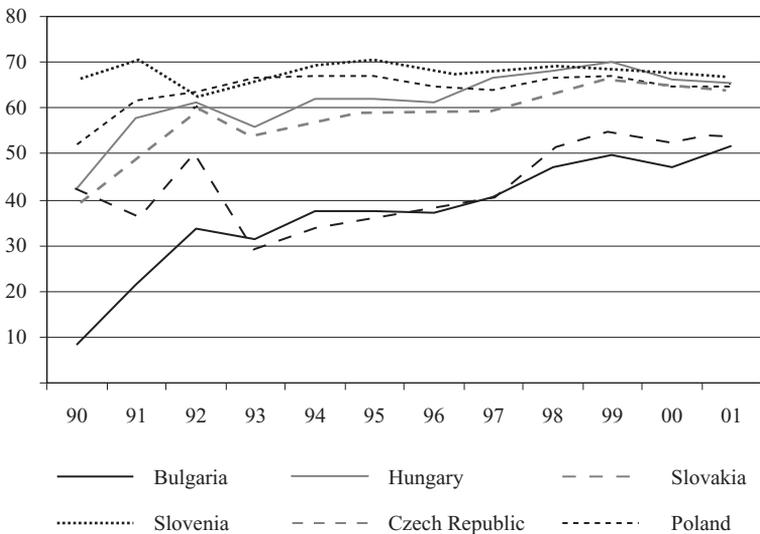
was radically liberalized very early, at the beginning of the transition, which encouraged the expansion of foreign trade. Indeed, trade openness ratios (TOR – ratio of foreign trade in goods to GDP) of the CEEC were clearly rising during the 1990s. The average TOR of the six selected countries more than doubled by the end of the decade from the level of below 50% in 1990. Moreover, studies confirmed that the increase of trade openness was related to progress in structural reforms, so countries that conducted deeper and faster reforms (measured by transition index, EBRD, 2004) also experienced larger increases in their trade openness (Havrylyshyn and Al-Atrash, 1998).

In conjunction with experiencing an increase in their trade openness, transition countries also changed the geographic patterns of their foreign trade. Such a change was a consequence of the collapse of COMECON, which diverted their foreign trade towards other members of that trade bloc. Havrylyshyn and Pritchett (1991), on the basis of gravity analysis, conclude that the CEEC did not need to raise the level of their overall trade, but they had to increase the share of trade with Western European countries from the level of between 20% and 30%, where it stood at the beginning of the 1980's, to the level of between 60% and 80% in order to adjust their actual trade to trade potentials. Using the gravity approach again, Winters and Wang (1994) draw a somewhat different conclusion for the mid-1980s. Although intra-COMECON trade, according to their estimates, broadly matched the potential, trade with market economies was by and large below potential. Hungary appeared to be the most open of the CEEC, with actual trade with market economies reaching less than a third of the potential. Another influential study by Baldwin (1994) on the trade potentials of the CEEC is especially interesting for our purposes because it provides estimates of the Croatian potential trade structure. Baldwin (1994) estimated the potential exports of the CEEC to the twelve EU members in 1989 (the last pre-transition year) to be 4.8 times higher than actual exports, while potential imports were estimated at 2.1 times the actual imports. Simultaneously, actual trade with other members of the Eastern bloc was between 0.4 times and 1.6 times higher than the trade potentials. According to these estimates, the twelve EU members should in the long run attract as much as approximately 60% of Croatian exports. With exports to EFTA-6 included, this share increases to 76%.

Even though different studies arrive at different quantitative conclusions on the potential levels of trade openness and trade diver-

sion with respect to intra-CEEC trade, depending on the estimates of GDP and trade, which could not be valued according to market prices before the transition, they coincide on the large potential that exists for an increase in trade with Western European countries compared with the level prevailing before the collapse of COMECON. The share of the fifteen EU member countries in selected CEEC's trade indeed rose from about 42% (being already considerably higher than their share in the early 1980s) to 61% of their total trade during the 1990s. Slovenia and Slovakia are seemingly exceptions from such dynamics with volatile trade behavior during the early 1990s. In the case of those countries stagnation and slow growth of the EU share in their total trade during the 1990s resulted from the dissolution of multi-national states and the conversion of trade with the former members of the federations to international trade, which reduced the share of EU members in total trade. If the effect of the dissolution is excluded, the dynamics of their geographical trade pattern do not substantially diverge from the dynamics observed in other countries.

*Figure 2 Share of the EU-15 in Central and Eastern European countries merchandise trade (in %)*



Sources: WIIW (1997; 2000; 2003).

In addition to the above-mentioned factors, GDP growth also affected the dynamics of international trade. Countries that grew faster during the 1990s ended up trading more both in volume and as a proportion of GDP. GDP dynamics were also influenced by success in the implementation of structural reforms, so it was an additional reason for successful countries increasing their trade openness and trade integration, while less successful countries had lower trade shares and volumes on average.

During the second half of the 1990s, EU members' share in CEEC trade grew somewhat slower, although CEEC trade openness continued to grow. Nilsson (1999) reported that by 1995 the CEEC's geographic trade pattern matched the trade structure of a typical developed country or OECD member. Brenton and Di Mauro (1998) reached a similar conclusion from a more detailed analysis of trade flows according to individual sectors, especially trade in sensitive products such as apparel or agricultural products. As low-wage countries usually enjoy comparative advantages in the production of labor-intensive products, the EU retained trade barriers for the imports of those products from the CEEC until the end of the 1990s. However, even trade in sensitive products between the EU and the CEEC, regardless of the existing tariffs and quotas, reached its potential by 1999. Therefore, Brenton and Di Mauro did not expect it to grow further. Di Mauro (2000) even proclaims the end of trade integration between the EU and the CEEC and announces "deeper" integration characterized by stronger foreign direct investment (FDI) flows.

The studies discussed are interesting since they indicate that the CEEC were highly integrated with the EU by the mid-1990s, as far as trade is concerned. However, the Commission's evaluation of their economic readiness was not as enthusiastic. The Commission did not acknowledge five of the candidate countries from central and east Europe (the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia) and all three Baltic countries (Estonia, Latvia and Lithuania) as functioning market economies until 2000, when the Commission published its third report on the progress made towards accession by the candidate countries. However, even at that time all those candidates, according to the Commission, needed to pursue further reforms in order to be able to cope with competitive pressures and market forces within the Union in the medium term and none of those countries came any closer towards fulfillment of the second economic criterion until 2002, or the last time they were included in the Commission's report. Bulgaria was recognized as a functioning market

economy in the report for 2002, while Romania was the last to be acknowledged, in the report for 2003.

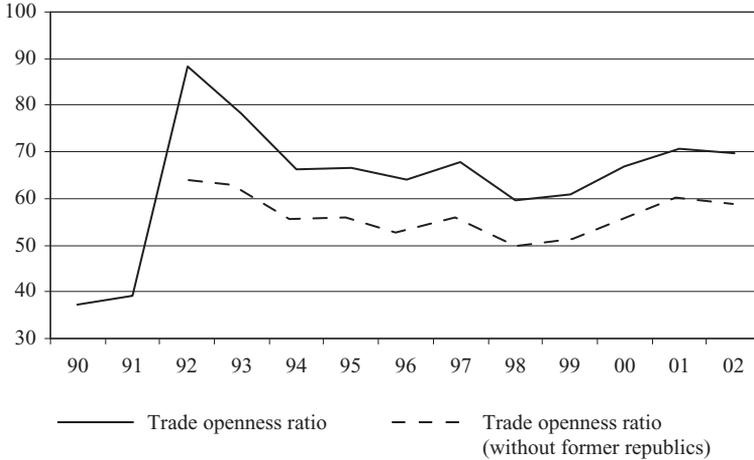
## **CROATIAN TRADE INTEGRATION INTO THE EUROPEAN UNION**

The Commission in its Opinion on the application of Croatia for membership of the EU evaluated the same lengthy array of different indicators of economic development, macroeconomic environment and implemented structural reforms, which is supposed to show progress in eleven areas of the Commission's interest, as had been the case in the previous applications. In its Opinion the Commission recognized Croatia as a functioning market economy. However, the Commission considered Croatia to be unable to cope with competitive pressures and market forces within the Union, although Croatia should be able to satisfy the second criterion provided that it continued implementing its reforms to remove the remaining weaknesses.

Indicators of trade liberalization and trade openness constitute one of the groups that the Commission evaluated within the second criterion, in which Croatia scored rather favorably. Having in mind the importance of trade for the Commission and even more for some researchers, it seems justified to explore trade integration between the Croatia and the EU in more detail. At the time of the declaration of independence, with TOR being as high as 90%<sup>vi</sup>, Croatia was a very open economy. However, while other CEEC became more open as the transition advanced, Croatia became less open and the TOR continued falling until the mid-1990s. The TOR decrease was not reversed until the late 1990s and the period of more intense trade liberalization, when it reached about 70%. TOR decline during the first couple of years after independence was mostly due to reduced trade with former Yugoslav republics, while trade with other countries stagnated, measured as a proportion of GDP. Moreover, Croatian TOR was below the range of 90-130% where the CEEC's TOR stood at the end of the 1990s, with the exception of Poland, which is a large and therefore less open country. As trade openness is influenced by geographic location, transport infrastructure, border regimes and a number of other factors that are hard to quantify, it is difficult to state unambiguously whether Croatia was a less open country in terms of foreign trade than the CEEC.

Obviously, trade in services, especially tourism, is particularly important for Croatia, which increases its openness.

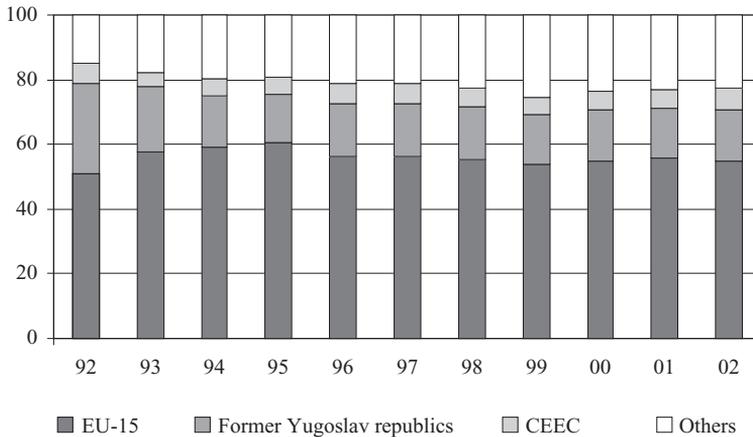
Figure 3 Croatian trade openness ratio (in %)



Source: CBS

The extent of trade distortions existing in Croatia at the beginning of the transition, according to some of the quoted studies, was below that of other transition countries. However, although the former Yugoslavia was not a member of COMECON, the collapse of the latter amid the fall of the Iron Curtain led to a diversion of excess trade with that block. Havrylyshyn and Pritchett (1991) suggest, based on an estimated gravity equation, that Yugoslavian trade with the CEEC exceeded the “natural” volume by 13 percentage points of the trade total at the beginning of the 1980s, while, at the same time, trade with Northern Europe fell short of “natural” trade levels by 18 percentage points. This is a fairly small trade bias compared with the degree of trade reorientation needed in other CEEC, some of which, according to estimates made by Havrylyshyn and Pritchett, needed to reorient almost three-quarters of their trade. However, Croatia suffered from another type of bias – the regulations of international trade encouraged trade with the former Yugoslav republics. The data from the 1987 input-output tables reveal that Croatian trade with the former Yugoslav republics was more than two times larger than overall foreign trade.

Figure 4 Geographical structure of Croatian foreign trade



Source: CBS

Croatian trade had been partially diversified prior to the break-up of the former Yugoslavia, so by 1992 the share of the former Yugoslav republics fell to less than a third of total trade. Diversification of imports towards the other countries was particularly fast as imports quickly rose after a slump caused by the break-up, while the rise in exports was much less vigorous. The process of trade diversification continued until the mid-1990s when the share of the former Yugoslav republics reached about 15% of total trade. Since then, the proportion taken by the former Yugoslav republics in Croatian trade has stagnated and even recovered somewhat. Increase in the proportion taken by the EU was the other side of the diversification process. Before the break-up of the former Yugoslavia, EU members accounted for about 60% of Croatian trade, and after the rise in bilateral trade, the share of EU members rose as well and then stabilized in the first half of the 1990s at between 50% and 60% of the total. Such a dynamic corresponds to a slight increase in the share of EU members compared to the beginning of the 1990s due to the break-up. If trade with former Yugoslav republics is excluded from the total, the share of EU members reaches 65% of the rest.

There are no rigorous estimates on the size of the home-country bias in the former Yugoslavia. However, Fidrmuc and Fidrmuc (2000) find that the level of trade between Slovenia and Croatia in 1990, prior to the break-up, exceeded the “normal” level 24 times. This figure is

rather high in comparison with the above-mentioned estimates of home-country biases prevailing in high-income countries<sup>vii</sup>, but low in comparison with other transition countries. For example, according to the same study, trade flows among the three groups of newly independent (successor) countries – the Czech Republic and Slovakia; the three Baltic States; and the Belarus-Russia-Ukraine area – exceeded “normal trade” by 41-43 times. In accordance with the falling trade between the Croatia and the former Yugoslav republics, Fidrmuc and Fidrmuc (2000) report that by 1998 the level of trade between Croatia and Slovenia exceeded the “normal” level only two times, between the Czech and the Slovak Republics seven times, 13 times among the Baltic States and 30 times among Belarus, Russia and Ukraine.

The geographical pattern of Croatian trade does not reveal whether Croatia has completed the transition in trade. Stabilization of the geographical trade pattern along with a fairly high proportion taken by EU members in total trade might suggest that Croatian trade converged towards its potential. However, the stagnation of the Croatian TOR somewhat below the TORs of other CEEC indicates the possibility of an interruption in trade transition. In order to shed more light on that issue, a gravity model will be used to estimate the remaining biases in the Croatian trade with the EU members, the CEEC and the former Yugoslav republics. The gravity model was estimated for three different time periods: 1999, 2002 and 2003. The first of those years is interesting because it precedes Croatian WTO membership (Croatia became a WTO member in 2000) and many other trade integrations (in 1999 Croatia had preferential trade agreements with Slovenia, Macedonia and Bosnia and Herzegovina<sup>viii</sup>, while by 2003 the number of preferential trade agreements had increased to 31, including all of the old and new EU members<sup>ix</sup> along with the Norway, Switzerland, Lichtenstein, Iceland and Turkey) so the gravity model will also estimate first effects of trade agreements. As the Stabilization and Association Agreement (SAA) is qualitatively different from the Europe Agreements concluded between the EU and the CEEC at the beginning of the 1990s, the future effects of the SAA will probably differ from the experience of the CEEC. On the one hand, Croatia managed to reach a more favorable position than the CEEC since most of the previous barriers to exports of sensitive products are absent from the SAA. However, the Croatian SAA also has an important drawback compared to the Europe Agreements since Croatia was not admitted into the Pan-European Diagonal Cumulation of Origin, which is men-

tioned as a serious obstacle to future expansion of trade even by the European Commission (Brenton and Di Mauro, 1998; European Commission, 2004; Mayhew, 1998). Discussion about the inclusion of EU candidate countries into the system was vigorously debated at the beginning of the 1990s. Baldwin (1994) particularly supported their inclusion because he judged that leaving the candidates out of the system would significantly weaken FDI inflows, which proved to be the crucial prerequisite for successful trade integration.

Ordinary least squares were used in order to estimate nine gravity models (encompassing exports, imports and total trade for all three of the selected periods). The coefficient of determination in the estimated models falls within the acceptable range for gravity models (between 0.56 for exports in 1999 and 0.82 for total trade in 2003), with a growing tendency towards the end of the observed time span. Due to the heterogeneity of the countries included in the model, estimated model exhibit heteroscedasticity in residuals, which is often the case in gravity literature, so standard errors were estimated using the Newey-West procedure. Some of the estimated dummy variables are not significant in individual or even all of the periods estimated, but they are nevertheless kept in the model because the goal of the estimated models was to determine whether the actual Croatian trade flows diverge from the potentials. Moreover, all the dummy variables were kept through all of the periods in order to maintain the same structure in the model.

The gravity model reveals that total Croatian trade with the old EU members did not significantly differ from the trade potentials throughout the entire observed period. The actual level of imports was estimated to be somewhat above the potential, while actual exports were somewhat below the potential, although the dummy variables denoting the trade flows with the old EU members were found to be insignificant, which might arise from differing levels of integration with different member states, so the level of the estimated parameter could be interpreted as an indication of averaged different trade flows. Actual trade with the CEEC exhibited a rising tendency with respect to trade potentials so it exceeded the potential trade by 112% in 2003, arising from high and rising imports compared to their potential. Trade with the old EU members exhibited similar dynamics. All of the trade potentials were estimated on the basis of Croatian trade with the rest of the world, comprising between a quarter and a fifth of total trade during the observed time span, so trade potentials with the CEEC, old EU members and former Yugoslav republics will be underestimated to the extent that

there is unfulfilled trade potential with the rest of the world. Construction of a gravity model for a larger group of developed countries, such as OECD members, and using it in order to estimate Croatian trade potentials could partially solve this problem. However, in that case the constructed model would exhibit the average propensity to trade of those countries, which could differ from the Croatian propensity.

*Table 1 Difference between the actual and potential Croatian trade (in %)*

|                    | EU-15  | CEEC   | Bosnia & Herzegovina | Slovenia | Macedonia | Serbia & Montenegro |
|--------------------|--------|--------|----------------------|----------|-----------|---------------------|
| <b>Exports</b>     |        |        |                      |          |           |                     |
| 1999               | -27.4* | -39.8* | 5,713.9              | 410.5    | 2,132.2   | 62.8*               |
| 2002               | -19.5* | -36.4* | 4,074.9              | 183.3    | 1,146.1   | 608.6               |
| 2003               | -53.2* | -57.4* | 2,647.6              | -1.7*    | 1,055.9   | 286.9               |
| <b>Imports</b>     |        |        |                      |          |           |                     |
| 1999               | 61.7*  | 260.7  | 4,680.6              | 2,744.9  | 5,074.8   | 243.4               |
| 2002               | 54.6*  | 286.2  | 3,818.8              | 2,197.7  | 3,998.0   | 419.0               |
| 2003               | 85.5*  | 547.8  | 5,372.1              | 3,296.9  | 4,329.9   | 671.4               |
| <b>Total trade</b> |        |        |                      |          |           |                     |
| 1999               | -10.3* | 32.6   | 6,096.5              | 791.9    | 3,171.5   | 86.9*               |
| 2002               | -15.0* | 47.4   | 4,854.4              | 522.4    | 2,311.1   | 488.9               |
| 2003               | -10.6* | 112.0  | 5,734.1              | 626.1    | 2,536.7   | 546.2               |

\* not statistically significant (at the 10% level)

Source: authors' calculations

Regardless of the stated deficiencies, it is interesting to examine the extent and persistence of biases that exist in trade with the former Yugoslav republics. The largest bias, amongst the most recent observations, can be observed in trade with Bosnia and Herzegovina, which exceeded the potential by about 5,700%. The decrease and subsequent increase of this bias can probably be traced to the abolishment and renewal of the preferential trade agreement. High bias was also found in trade with Macedonia, but it was reduced in recent years, which is consistent with the conclusion of new trade agreements and diversification of trade. Increase of trade with Serbia and Montenegro also increased the bias, but it preceded conclusion of the preferential trade agreement that came into force in 2003. Bias in trade with Slovenia was high throughout the observed time-span, notwithstanding some minor fluctuations, although bias in exports was decreasing and bias in imports was growing.

Significant reduction of some estimated biases in exports during the observed time span does not arise from the reduction of exports to

the old EU members, CEEC and some of the former Yugoslav republics, but rather from growing exports to the rest of the world. In line with this notion, high estimated biases in Croatian trade with the former Yugoslav republics do not necessarily mean that Croatia is trading to that extent above the true “potential”, for it might also signal insufficient trade with other countries. Such a conclusion is supported by Fidrmuc and Fidrmuc (2000) who find that the level of trade between Croatia and Slovenia exceeded the “potential” only two times in 1998, based on the estimated trade propensity of the OECD countries. Additional indicative confirmation is provided by Fidrmuc (2004) who included Croatia in a large-scale gravity model estimated for a total of 60 countries. On the basis of aggregation of estimated country-specific fixed effects, Fidrmuc concludes that Croatia belongs to a group of countries with significant unfulfilled trade potentials (Croatia is positioned 51<sup>st</sup> amongst the 60 countries, with the level of trade integration with the world similar to Malta and somewhat higher than Lithuania, Latvia, Belarus, Macedonia, Moldova, Bosnia and Herzegovina and Albania, which are positioned at the back, while all of the CEEC, according to this indicator, were better integrated into world trade than Croatia). It should be kept in mind that aggregation of fixed effects also reflects a number of other country-specific factors, although the rankings suggests that Croatia belongs to the group of countries that are relatively poorly integrated into the world trade. Another possible way to assess the level of trade integration with the world is to include internal trade into the gravity model (McCallum, 1995; Wei, 1996). However, such an approach often relies on a number of crucial assumptions with respect to the way the model is constructed or on detailed statistical data on trade of individual territorial units within the observed country (the same level of data aggregation is preferable for trading partners as well), which is rarely available.

Even if all remnants of home-country biases between the Croatia and the former Yugoslav republics disappear, common border and language similarities will still encourage bilateral trade. Fidrmuc and Fidrmuc (2000) explicitly account for the impact of the common border that, according to their findings, increases the potential trade by about half. Therefore, accounting for the border effects would reduce the difference between the findings of this paper and the results of Fidrmuc and Fidrmuc (2000). Taking into the account their findings of the border effect on trade would reduce the estimated bias in bilateral trade between Croatia and the neighboring former Yugoslav republics by about a third.

Regardless of the transformation of the Croatian trade pattern, the estimated gravity model suggests that home-country bias in trade with former Yugoslav republics remains significant. Moreover, the conclusion of numerous preferential trade agreements initiated the restoration of the old trade patterns and strengthened the trade links with the former Yugoslav republics, working against further trade diversification. The considerable Croatian delay in trade integration with the old EU members and the CEEC seems to be related to the high and even rising biases in trade with the former Yugoslav republics. Brenton and Di Mauro (1998) conclude that liberalized access to some of the CEEC on the EU's internal market might result in the crowding out of the other CEEC since they are direct competitors. Such a view is opposite to the previous fears in some of the old EU members, especially the southern countries (Portugal, Spain, Italy and Greece), of competition from the CEEC, which generally proved to be unfounded. A change in the attitude of the European Commission is especially visible in the willingness to grant more favorable access to the EU market with respect to sensitive products than was previously the case with the new members. So far, only Croatia and Macedonia have managed to conclude preferential trade agreements in order to exploit this change in the Commission's attitude.

The Croatian economy, which lost ground on the EU market due to delays in integration processes, is still making use of its favorable access to the markets of former Yugoslav republics. Such a position provides only a temporary shelter, until those countries open up and provide Croatian competitors an equal access to their markets. Design of the "right" trade regime for Croatia would therefore reduce existing biases in international trade and increase the long-term potential for growth.

## **CONCLUSIONS AND RECOMMENDATIONS**

The European Commission, as early as the first Opinion, rather favorably assessed the Croatian ability to pursue further economic integration into the EU. New EU members did not earn comparable assessment until 2000 (that is four years prior to the accession). Notwithstanding the Commission's assessment, the pattern and dynamics of Croatian trade still exhibit a strong bias towards the former Yugoslav republics, Bosnia and Herzegovina and Macedonia in particular, although there is a stable bias towards Slovenia and a growing bias

towards Serbia and Montenegro. Those biases evolved from inherited trade patterns that were supported by the early conclusion of preferential trade agreements with some of those countries. The gravity analysis performed does not clearly suggest any remaining trade potential with the EU member states, which might result from the properties of the gravity model as well as from differences in trade relations with individual EU members. However, stagnation of the trade openness ratio at a somewhat lower level than in the case of the other CEEC's, as well as findings from some recent research (Fidrmuc, 2004), suggest precisely that.

Such a position with respect to trade integration can probably best be explained by loss of ground in the market of the EU on account of the competitors from the group of the CEEC that advanced faster in trade integration. The lost ground cannot be recovered in the short run, but trade integration with the EU should be accelerated in order to reduce the existing biases and the long-term costs of trade restructuring. This primarily pertains to the Pan-European Diagonal Cumulation of Origin, to which Croatia is still not admitted. The CEEC, probably Croatia's most serious competitors on that market, are at the same time full EU members after about a decade of participation in the Pan-European Diagonal Cumulation of Origin. The existing system of bilateral trade relations actually means that a large portion of trade between Croatia and the EU is not carried out within a free trade regime, which inhibits manufacturing FDI and hinders Croatian integration into European production chains. Since a high level of trade integration has been considered in this paper not only as a precondition for successful economic integration but also as a consequence of the efficient removal of institutional barriers to trade, in order to facilitate trade integration with EU members it would be desirable for Croatia to join the EU as quickly as possible. On the other hand, efforts to integrate more deeply with countries of South-East Europe would only provide a temporary shelter on markets of countries that are even less open than the Croatian market. This strategy would increase the long-term costs of trade restructuring so it should in no case be a policy priority.

Finally, in order to resolve the existing trade biases, it would be more important to increase trade with countries where there is no excess above the "potential" (especially EU members as well as other countries that are not particularly emphasized in the analysis) than to decrease trade with the former Yugoslav republics and with some of the CEEC. Increased trade with those countries would also raise the level

of trade openness, in which Croatia also lags behind. Empirical evidence that points to the link between structural reforms and trade openness suggests that fostering those reforms would be the correct way to increase trade openness. According to the EBRD transition index, Croatia, despite some recent improvements, still lags behind seven of the new EU members<sup>x</sup> in conduct of the reforms (EBRD, 2004). Fostering reforms such as privatization, strengthening the rule of law and reduction of the role of the state in the economy are therefore necessary to increase trade integration as well as competitiveness, both being preconditions for successful accession to the EU.

- 
- i *The Europe agreements arranged between the transition countries that became EU members in 2004 and the EU are the first generation of Association agreements designed for the transition countries. Those agreements were concluded between 1993 and 1996, while they came into force in 1994 (Hungary and Poland), 1995 (Czech and Slovak Republics), 1998 (the three Baltic Republics) and 1999 (Slovenia).*
  - ii *Surplus on the services account of the balance of payments compensates to a large extent for the exceptionally high Croatian trade deficit. Unfortunately, it is not possible to include trade in services into the gravity analysis because there are no data on the geographic pattern on trade in services, although it would be more than justified in the case of Croatia. Analysis of the current account deficit, or comparison of the actual current account deficit with the expected deficit on the basis of GDP level and GDP growth (or demand for foreign savings), access to the international financial markets (supply of foreign capital), would therefore be a more comprehensive approach to the analysis of the trade deficit. Economic integration can fuel capital inflows, increasing the current account deficit and seemingly leading to a deterioration in competitiveness, while higher foreign investments at the same time foster productivity growth (Blanchard and Giavazzi, 2002).*
  - iii *Usually only imports are included into gravity models because it is assumed that their statistical coverage is better, due to the collection of customs. Since a single country gravity model is utilized in this paper, imports and exports will be treated separately, as well as total trade, or the sum of imports and exports.*
  - iv *In this paper Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia are considered CEEC. Those countries used to belong to the Council for Mutual Economic Assistance (COMECON), while today they are EU candidates or member states.*
  - v *Although it is undisputable that borders reduce trade, there are different explanations how and why this happens. While some researchers consider the home-country bias in trade to be mostly a result of tariffs and endogenous historical developments, such as the development of the transport network and other infrastructure (Djankov and Freund, 2000), other researchers emphasize the role that a common currency has in promoting trade (Rose, 2000), while others again point to the increase in the costs of acquiring information when business is done across the borders (see, for example, Obstfeld and Rogoff, 2000).*
  - vi *The jump of TOR after the proclamation of independence in part arises from the reduction of foreign currency value of non-tradables due to hyperinflation and in*

- part also from the conversion of trade with former Yugoslav republics to international trade (the difference between the full and the dotted line in the figure).*
- vii *For example, Helliwell (1998) found that during the period 1993-96 the Canadian provinces traded 12 times more among themselves than with US federal states, accounting for the differences in incomes and distance.*
  - viii *Croatia concluded the first preferential trade agreement with Bosnia and Herzegovina. However, the agreement was abolished in 1998 due to IMF demands for Bosnia to increase custom revenues, but it was restored in January 2001 on an asymmetrical basis. A preferential trade agreement with Slovenia has been in force since January 1998 and with Macedonia from October 1997.*
  - ix *Including Luxembourg.*
  - x *Slovenia is the eighth country from that group and the only country with a somewhat weaker transition index than Croatia.*

## LITERATURE

- Astrov, V., 2001.** *Structure of Trade in Manufactured Products between Southeast European Countries and the European Union*. Project international and regional integration in SEE, mimeo.
- Baldwin, R. E., 1994.** *Towards an Integrated Europe*. London: Centre for Economic Policy Research.
- Blanchard, O. and Giavazzi, F., 2002.** "Current Account Deficits in the Euro Area. The End of the Feldstein Horioka Puzzle?". *Brookings Papers on Economic Activity*, (2), 147-186.
- Brenton, P. and Di Mauro, F., 1998.** "Is There Any Potential in Trade in Sensitive Industrial Products Between the CEECs and the EU?". *The World Economy*, (21), 285-304.
- Brenton, P., Di Mauro, F. and Lucke, M., 1999.** "Economic integration and FDI: an empirical analysis of foreign investment in the EU and in Central and Eastern Europe". *Empirica*, (26), 95-121.
- CBS, Republic of Croatia Statistical Yearbook.** Various issues. Zagreb: Central Bureau of Statistics.
- Christie, E., 2001.** *Potential Trade in Southeast Europe: A Gravity Model Approach, Project International and regional integration in SEE*, mimeo.
- De Ménil, G. and Maurel, M., 1994.** "Breaking up a customs union: the case of the Austro-Hungarian Empire in 1919". *Weltwirtschaftliches Archiv*, 130 (3), 553-575.
- Dell'Ariccia, G., 1998.** "Exchange rate fluctuations and trade flows: evidence from the European Union". *IMF Working Paper*, WP/98/107.
- Di Mauro, F., 2000.** *Economic integration between the EU and the CEECs: A Sectoral Study*. Mimeo.
- Dimitrov, M. and Stanchev, K., 2001.** *SEE Trade and Institutions: A Case Study on Bulgaria and the Region*. Project international and regional integration in SEE, mimeo.
- Djankov, S. and Freund, C., 2000.** "Disintegration". *CEPR Discussion Paper*, No. 2545.
- EBRD, 2002.** *Transition report 2002*. London: European Bank for Reconstruction and Development.
- EBRD, 2004.** *Transition report 2004*. London: European Bank for Reconstruction and Development.
- Egger, P., 2000.** "A note on the proper econometric specification of the gravity equation". *Economic Letters*, 66, 25-31.

- European Commission, 2001.** “Progress towards meeting economic criteria for accession: the assessment from the 2001 Regular Report”. Enlargement papers, Directorate-General for Economic and Financial Affairs, No. 6, November.
- European Commission, 2003.** *Progress Reports from the Commission on Progress towards Accession by each of the candidate countries, 1998-2003.*
- European Commission, 2004.** *Opinion on the Application of Croatia for Membership of the European Union.* April 2004.
- Fidrmuc, J. and Fidrmuc, J., 2000.** “Disintegration and trade”. *CEPR Discussion Paper*, No. 2641.
- Fidrmuc, J., 2004.** *Trade Integration of the New EU Member States and Selected South Eastern European Countries: Lessons from a Gravity Model*, mimeo.
- Flörkemeier, H., 2002.** “Functional Regions and the Measurement of Economic Integration“. *Albert-Ludwigs-Universität Freiburg im Breisgau, Institut für Allgemeine Wirtschaftsforschung, Discussion Papers*, No. 01/02.
- Frankel, J., 1997.** *Regional Trading Blocs.* Washington: Institute for International Economics.
- Havrylyshyn, O. and Al-Atrash, H., 1998.** “Opening up and geographic diversification of trade in transition economies”. *IMF Working Paper*, WP/98/22.
- Havrylyshyn, O. and Pritchett, L., 1991.** “European trade patterns after the transition”. *Working Papers*, WPS 748. Washington: The World Bank.
- Helliwell, J. F., 1998.** *How Much Do National Borders Matter?.* Washington: Brookings Institution Press.
- IMF, 2002.** *Direction of Trade Statistics Yearbook.* Washington: International Monetary Fund.
- Mayhew, A., 1998.** *Recreating Europe. The European Union’s Policy towards Central and Eastern Europe.* Cambridge: Cambridge University Press.
- McCallum, J., 1995.** “National borders matter: Canada-US regional trade patterns”. *American Economic Review*, 85 (3), 615-23.
- Nilsson, L., 2000.** “Trade integration and the EU economic membership criteria”. *European Journal of Political Economy*, 16 (4), 807-827.
- Obstfeld M. and Rogoff, K., 2000.** “The six major puzzles in international macroeconomics: Is there a common cause?” in: B. S.

- Bernanke and K. Rogoff, eds. *NBER Macroeconomics Annual 2000*. Cambridge: MIT Press, 339-390.
- Rose, A., 2000.** "One money, one market: the effect of common currencies on trade". *Economic Policy*, 15 (30), April.
- Sirotković, J., 1996.** *Hrvatsko gospodarstvo*. Zagreb: HAZU : Golden marketing.
- Vittas, H. and Mauro, P., 1997.** "Potential trade with core and periphery: industry differences in trade patterns" in: S. W. Black, ed. *Europe's Economy Looks East: Implications for Germany and the European Union*. Cambridge: Cambridge University Press, 67-99.
- Vujić, B. and Presečan, T., 1999.** "External deficit, exchange rate and competitiveness in Croatia: is there a problem?" in: M. I. Blejer and M. Škreb, eds. *Balance of Payments, Exchange Rates, and Competitiveness in Transition Economies*. Amsterdam: Kluwer Academic Publishers, 285-318.
- Vujić, B., Drinovac, I. and Galinec, D., 1997.** "Struktura, dinamika i determinante hrvatskog izvoza". *Hrvatska narodna banka, Pregledi*, No. 2.
- Wei, S., 1996.** "Intra-national versus international trade: how stubborn are nations in global integration?" *NBER Working Paper*, No. 5531.
- WIIW, 1997.** *WIIW Handbook of Statistics*. Vienna: WIIW.
- WIIW, 2000.** *WIIW Handbook of Statistics*. Vienna: WIIW.
- WIIW, 2003.** *WIIW Handbook of Statistics*. Vienna: WIIW.
- Winters, L. A. and Wang, Z. K., 1994.** *Eastern Europe's International Trade*. Manchester: Manchester University Press.
- World Bank, 1989.** *World Development Report 1989: Financial Systems and Development*. New York: Oxford University Press.
- World Bank, 2000.** *World Development Indicators 2000*. Washington: World Bank.
- World Bank, 2003.** *World Development Indicators 2003*. Washington: World Bank.
- World Bank, 2004.** *World Development Indicators 2004*. Washington: World Bank.