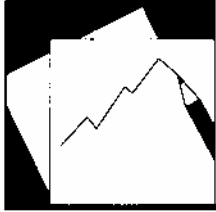


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Trade-Liberalization Strategies: What Could Southeastern Europe Learn from the CEFTA and BFTA?

*Antonis Adam, Theodora S. Kosma, and
Jimmy McHugh*

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Prepared by Antonis Adam, Theodora S. Kosma, and Jimmy McHugh¹

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Abstract

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This paper explores the effectiveness of the Central European Free Trade Area (CEFTA) and the Baltic Free Trade Area (BFTA). Estimates from a gravity model and bilateral trade data support the view that both CEFTA and BFTA helped expand regional trade and limit the emergence of a “hub-and-spoke” relationship between the CEECs and the European Union (EU). These empirical conclusions carry some important policy implications for the “second wave” of prospective EU members among Southeastern European Countries (SEECs). The paper argues that the SEECs should reconsider their bilateral approach to trade liberalization and move towards a multilateral free-trade area as exemplified by both the CEFTA and BFTA.

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Authors' E-Mail Addresses: aadam@aueb.gr; kosma@aueb.gr; jmchugh@imf.org

¹ Antonis Adam and Theodora Kosma are students in the Department of International and European Economic Studies (DIEES), at Athens University of Economics and Business (AUEB), 76 Patission Street, 10434, Athens, Greece. Jimmy McHugh is the IMF's Resident Representative in Armenia. The authors would like to thank Gohar Minasyan for research assistance. For helpful comments and suggestions, they would like to thank John Zorhab, T. Moutos, P. Hatzipanayotou, and S. Brissimis. They would also like to thank the participants in the IMF European I Department seminar, held in June 2003, and the participants in the ETSG 2003 conference held in September 2003, for their numerous helpful comments and suggestions. All errors remain the responsibility of the authors.

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I. INTRODUCTION

During the early 1990s, the Central and Eastern European Countries (CEECs)² created two free-trade agreements known as the Central European Free Trade Area (CEFTA) and the Baltic Free Trade Area (BFTA). Both agreements were created in response to a perceived weakness in the case for the eastern enlargement of the European Union (EU). The EU member states were initially skeptical about the CEECs' ability to cope with the cooperative and multilateral structures of the EU. Furthermore, there was an understandable fear that the EU accession process would redirect CEEC exports towards the EU and therefore render the CEECs more vulnerable to adverse shocks coming from the EU (Baldwin, 1993, 1994, 1995). Thus, the CEFTA and BFTA had two objectives. First, they were an early and important test of the CEECs' capacity to work together within cooperative trade arrangements. Second, they hoped to counter the growing dependence of the CEECs on EU markets by re-establishing regional trade flows.

How effective were the CEFTA and BFTA in achieving these two objectives? In terms of the first objective, this paper offers a generally positive assessment. Throughout the 1990s, both the CEFTA and BFTA became the main vehicles for regional trade liberalization. From an original membership of three, the CEFTA gradually enlarged to cover most of Central Europe. Although BFTA membership did not increase, the agreement was gradually expanded to cover a number of the politically sensitive areas, including agriculture and fisheries. However, the agreements had only a limited effect on reducing the CEECs' dependence on the EU. In regard to their impact on trade flows, estimates from our gravity model show that both arrangements had a positive effect on regional bilateral trade. Furthermore, intraregional trade increased and complemented the rapid increase in trade with the EU. Intraregional market shares held up well within CEFTA and actually increased in BFTA. Yet despite their success in promoting regional trade, the EU remained the dominant trading partner for the CEECs.

What lessons could the Southeastern European Countries (SEECs)³ learn from the experiences of the CEFTA and BFTA? In contrast to their northern neighbors, the SEECs did little during the 1990s to foster regional trade integration. Unsurprisingly, their export performance throughout the decade was extremely disappointing. Obviously, a large part of the explanation lies in the horrific conflicts that plagued the region throughout the decade which, along with the terrible humanitarian consequences, limited regional integration. These conflicts subsided after the 1999 Kosovo crisis; and, since then, the SEECs have tried to

² For the purposes of this paper, the CEECs include the following countries: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia. The CEFTA originated in the Visegrad countries—Czechoslovakia, Poland, and Hungary. It was later enlarged to include Romania, Bulgaria, and Slovenia, as well as the successor states to Czechoslovakia. More recently, Croatia has joined, becoming the only member that was not an EU candidate country. As the name suggests, the Baltic states of Estonia, Latvia, and Lithuania were the three members of the BFTA.

³ The SEECs include Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, and Serbia and Montenegro.

reinvigorate regional trade integration. However, for a variety of political reasons, the SEECs did not take a multilateral approach. Instead, they started to negotiate a network of bilateral free-trade agreements in the hope of creating a “virtual” regional free-trade area. This project is nearly completed. Although it is still too early to tell how successful this bilateral approach will be, it is fairly clear that the approach has some severe limitations, which may curb further trade reform in the future.

In the light of the CEECs’ experience, this paper strongly argues that the SEECs should reexamine their trade-liberalization strategy and adopt a more multilateral approach.

The SEECs are now in the same approximate position as the CEECs were during the early 1990s. Through the Stability and Association Agreements, the EU is offering the SEECs highly preferential trade agreements and the possibility of EU accession. Yet the EU member states have serious doubts about the SEECs’ capacity to build sustainable and peaceful economic and political relations with their neighbors. Greater regional integration could provide a valuable test for the SEECs and demonstrate that they are capable of sustaining a closer political and economic relationship with the rest of Europe.

There are three options available to the SEECs to develop regional integration. First, the CEFTA could be enlarged to include the SEECs. Second, the current system of bilateral free-trade arrangements could be harmonized and developed further to cover difficult trade issues such as agriculture, services, and “behind-the-border” issues like public procurement. Third, the SEECs could develop their own comprehensive multilateral free-trade agreement along the lines of the CEFTA and BFTA. Overall, we believe that a new multilateral free-trade agreement—the South East European Free Trade Area—is the most viable.

II. TRADE LIBERALIZATION IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

During the early stages of transition, the CEECs moved quickly to liberalize their trade and exchange regimes. The newly democratized countries quickly discarded the old Soviet-led trade agreement, the Council for Mutual Economic Assistance (CMEA). International trade was conducted at world prices and settled in convertible currencies. Tariff rates were lowered. Furthermore, the CEECs removed the plethora of restrictions that had characterized trade in the socialist economies; import and export controls were abolished, licensing regimes were liberalized, and foreign direct investment was permitted. However, these reforms were initially accompanied by a dramatic short-term collapse in regional trade flows.

While the transition led to a sharp fall in regional trade, it had also opened up the possibility of EU accession. However, the EU member states were wary of the idea of an eastern enlargement. The EU member states felt that it would take a considerable length of time before the CEECs had reached a sufficient level of economic and political development to ensure that enlargement would be a success. The EU member states were also worried that the newly democratized governments lacked experience of closely cooperating with their neighbors on economic and trade issues. Therefore, the EU pushed hard for the CEEC countries to establish closer political and economic relationships as a precursor to EU enlargement (for a discussion see Richter, 1998).

The CEECs responded quickly to the EU's challenge. They initiated a variety of economic, political, and diplomatic initiatives to enhance regional cooperation. The region took particular note of the EU's stress on re-establishing regional trade flows. Both the Visegrad and Baltic countries started discussions on creating regional free-trade agreements. In December 1992, Hungary, Poland, and Czechoslovakia signed the Central European Free Trade Agreement (CEFTA).⁴ The original members envisaged the creation of a free-trade area by 2001. The Baltic States launched their Free Trade Agreement slightly later than the CEFTA. They signed the BFTA in 1993, and it took effect in April 1994.

Despite its early reluctance, by the mid-1990s the EU had formulated a road map for the eastern enlargement. In particular, the EU developed an institutional mechanism for preparing CEEC candidate countries for EU membership—the Europe Agreements. These agreements provided for closer political and economic cooperation with the EU. They also specified a timetable for tariff reductions and prepared the candidate countries for accession through technical assistance, legal approximation to the *acquis communautaire*, and financial assistance.

However, asymmetric trade-liberalization was the main innovation of the Europe Agreements. The EU member states would eliminate trade restrictions faster than the candidate countries. Notwithstanding these generally favorable terms, a number of sensitive areas, such as agriculture and textiles, were exempt from the agreements. In general, these were sectors in which the CEECs had comparative advantages (for a discussion of this issue, see Lavigne, 1995).⁵ Nevertheless, these agreements were beneficial for the CEECs, and both EU trade and foreign direct investment increased rapidly.

However, the Europe Agreements suffered from a serious weakness; they did nothing to encourage and foster intra-CEEC trade. Many economists quickly recognized that asymmetric liberalization could create a “hub-and-spoke” problem (see Baldwin 1994). The Europe Agreements would divert trade flows along a “spoke” between the CEECs and the “hub” comprising of the EU member states. The CEECs would become satellite economies orbiting around the EU, with little intraregional trade. This raised the danger that, as trade became increasingly centered on the EU, the CEECs would become vulnerable to adverse shocks from the EU. Furthermore, there was an additional fear that the lack of intraregional trade-liberalization would tend to restrict intra-CEEC competition.

Ultimately, these hub-and-spoke considerations may have forced the CEEC countries to accelerate their plans to develop regional trade integration. As more CEEC countries signed Europe Agreements, it became increasingly clear that the EU enlargement would

⁴ For a survey of the post-transition decline of CMEA trade and the creation of the CEFTA see Rudka and Mizsei (1994).

⁵ For a complete discussion of the impact of EU accession on both the EU member states and the CEECs see Baldwin and others (1997), and Adam and Moutos (2002).

incorporate the majority of eastern European countries. The CEFTA was progressively enlarged to include Romania, Bulgaria, and Slovenia. The Czech Republic and Slovakia automatically became members as successor states to Czechoslovakia. Throughout the 1990s, the coverage of both agreements were progressively expanded. The original CEFTA agreement eliminated duties on approximately 40 percent of industrial goods. Through a series of additional protocols, mostly signed in 1994 and 1995, trade in industrial goods and some agricultural products was further liberalized. By 1997, the CEFTA had abolished duties on all industrial goods, apart from a minor list of sensitive goods. The BFTA did not increase its membership, but the coverage of the agreement was expanded. The Baltic States had always intended to include agriculture and fish products. However, extending the agreement proved more difficult than anticipated, largely because financial support for agriculture was more significant in Lithuania compared to Estonia and Latvia. Nevertheless, by January 1997, the Baltic countries extended the agreement to cover these politically difficult areas. Indeed, the BFTA was the first free-trade area that had provided for completely liberalized trade in agricultural and food products prior to the formation of a customs union and the harmonization of domestic support and foreign trade policies (Kazlauskienė and Meyers, 1999).

The Europe Agreements, CEFTA, and BFTA laid the basis for a period of exceptional CEEC export growth (see Table 1). Between 1993 and 2001, BFTA total export receipts increased by almost 400 percent, while the CEFTA's receipts benefited from a marginally less impressive growth rate of 250 percent. Between 1993 and 2001, the BFTA achieved a three-fold increase in exports to the EU, while the CEFTA achieved a two-fold increase (see Table 2). Furthermore, both the CEFTA and BFTA countries managed to increase their market share within the EU. Over the same period, the BFTA's market share increased from 0.11 percent to 0.26 percent, while the CEFTA increased its market share from 2.13 percent to 4.08 percent (see Table 3).⁶

Intraregional trade expanded in both the CEFTA and BFTA. Between 1993 and 2001 intraregional trade within the CEFTA doubled, while market share⁷ fell slightly from 11 percent to just under 10 percent (see Tables 4 and 5). However, performance varied within the group. Both the Czech Republic and Slovakia experienced a significant drop in intraregional market share. However, this was due to a decline in bilateral trade, after Czechoslovakia was dissolved. Hungary, Poland, and Romania all increased their share of intraregional trade, while Bulgaria and Slovenia largely maintained their respective shares. Both intraregional trade and market share increased in the BFTA area. Between 1993 and 2001, intraregional export receipts increased four-fold, while intraregional market share increased from 8.4 percent to 9.6 percent (see Tables 6 and 7).

⁶ The higher increase in the exports of the BFTA countries is more marked if we take into account the fact that the Baltic countries were less developed when the transition started compared to the Central European countries (Feldman and Sally, 2002).

⁷ Intraregional market share is defined as the proportion of regional imports that originated from other members of the region. For example, in the case of the CEFTA, intraregional market share is the ratio of CEFTA exports to other CEFTA countries as a percent of total CEFTA imports.

While the CEFTA and BFTA sustained and developed intraregional trade, they did not prevent the CEECs from becoming increasingly dependent on EU markets. In 1993, CEFTA exports to the EU were 56 percent of total exports; by 2001, that figure had reached 68 percent. In the BFTA, that trend was less marked. In 1993, 50 percent of BFTA exports went to the EU; by 2001, that figure had risen to 55 percent (see Table 8). Ultimately, the asymmetric liberalization embedded in the Europe Agreements proved to be too strong to prevent the CEECs' growing dependence on the EU.

III. TRADE LIBERALIZATION IN SOUTHEASTERN EUROPEAN COUNTRIES

As far as SEEC trade policy reform was concerned, the 1990s were a lost decade. As the former Socialist Federal Republic of Yugoslavia (SFRY) dissolved, the successor countries introduced restrictive trade regimes, each with their own tariff schedules and border controls. Moreover, the various wars that plagued the region during the first half of the 1990s disrupted several important transportation links. Consequently, regional trade flows virtually ceased. As the 1990s progressed, the successor states of the SFRY did little to reverse the decline in regional trade. Authoritarian and nationalist governments dominated the two largest countries in the region—Croatia and Serbia—and they had little interest in reforming regional trade arrangements. Furthermore, both countries were isolated internationally, albeit by different degrees of intensity. Consequently, the region failed to negotiate preferential trade agreements with the EU. After the Dayton agreement, the political environment prevented any rehabilitation of old trading relationships.

Regional trade data reflects this lack of progress. Between 1996 and 2001, the SEECs only managed to increase their total export receipts by 18 percent (see Table 1). Of course, we should treat pre-1996 trade data for the SEECs with some caution. For extended periods of time, Serbia and Montenegro were placed under sanctions and the data cannot account for unrecorded sanctions-busting trade. Military conflict played the major role in depressing trade performance, but its significance should not be overstated. The periods when conflict had subsided—for example 1996–99 and 2000–01—were not marked by a recovery in trade. Intraregional export receipts and market share fell every year between 1997 and 2000 (see Table 9). Furthermore, the SEEs had little success penetrating the CEFTA and BFTA markets (see Tables 3 and 7). The SEECs only made progress in the EU markets, where export receipts increased by 31 percent during 1996–2001, albeit from a comparatively low level.

The aftermath of the 1999 Kosovo crisis marked the first serious attempt to rebuild regional trade relationships. In June 1999, the international community created the Stability Pact for Southeastern Europe. Both the SEEC governments and the international community were determined to make trade-liberalization one of the main pillars of the post-conflict recovery of the region. The pact established a “working table” on economic reconstruction, which was given responsibility for regional economic cooperation. The Stability Pact envisaged a two-stage process. During the first stage, the SEECs would eliminate administrative barriers to trade, put a standstill on any new measures to restrict trade, and coordinate a reduction in trade barriers towards each other. During the second

stage, the SEECs would accede to the WTO and establish a free-trade area that covered both the region and the EU (Michalopoulos 2002).

In order to meet its commitments under the Stability Pact, the EU launched the Stabilization and Association Process. The EU are now negotiating Stability and Association Agreements (SAAs) with each of the SEECs which, like the earlier Europe Agreements, provide an institutional framework for closer political and economic integration.⁸ Like their earlier counterparts, the SAAs also provide for asymmetric trade-liberalization. Even before negotiating the SAAs, the EU revised its trade preferences with the SEECs and unilaterally offered more generous market access. The new arrangement, known as Autonomous Trade Preferences, allowed duty and quota-free access for the majority of SEEC exports. Nevertheless, quotas remain on a few sensitive areas such as agriculture, wine, and textiles. These agreements can potentially create a hub-and-spoke problem directly comparable to that created by the Europe Agreements.

The Stability Pact led directly to the SEECs signing a Memorandum of Understanding (MoU)⁹ on trade liberalization in June 2001. Instead of immediately starting work on creating a regional free-trade area, the SEECs decided to create a network of limited bilateral agreements. During the discussions on the MoU, the option of a single comprehensive free-trade agreement was proposed. Despite its compelling logic, the SEEC representatives were not persuaded. They believed that the political will to develop a unified agreement did not exist at the time and that a network of bilateral agreements was a less risky and potentially more productive option (see Wijkman 2003). The memorandum set a target date of December 2002 to finish this work. As of March 2003, out of a total of 21 potential agreements, ten are now fully operational (see Table 10). As for the remaining agreements, four are signed and will shortly become fully operational, and seven agreements are initialed and await ratification. Nevertheless, in the case of those agreements not yet fully operational, tariffs on many items have been already lowered or abolished as a precursor to the agreements becoming effective.

The bilateral approach is problematic. Potentially, each bilateral agreement could be different and therefore this approach could create rather tangled, spaghetti-like trading relationships. The coverage of tariff lines could vary widely and each agreement may have a different liberalization timetable. The MoU did try to partly address this issue. It laid down some general guidelines which each agreement should adhere to. Most importantly, the memorandum set two targets: tariff rates should be abolished for at least 90 percent of all tariff lines, and tariff liberalization should cover at least 90 percent of bilateral trade by value. By spring 2003, most bilateral free-trade agreements had come close to fulfilling these

⁸ The EU objective to support peace and stability in the region is contained in the 1995 Barcelona Declaration and in the Common Strategy adopted by the European Council in 2000 and was further supported by a series of bilateral agreements with other developing countries in the Mediterranean (see McQueen, 2002).

⁹ The Memorandum of Understanding (MoU) was signed by Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania, and Serbia and Montenegro. Later, Moldova also signed the MoU.

targets. Messerlin and Miroudot (2003) reported that eleven agreements have already met the 90 percent targets, while in seven cases bilateral trade flows have reached 85 percent. These early successes in meeting the targets must be interpreted with care. As Messerlin and Miroudot point out, these 90 percent targets are easy to achieve when intraregional trade flows are still very low and comprise of a comparatively small number of products. This problem is particularly pressing in the case of agriculture, which is still heavily protected. The 90 percent targets have not created sufficient incentives for liberalizing trade in agricultural goods. Agriculture is comprised of a very small number of tariff lines and, because of the intense protection, is not traded much within the SEECs. Therefore, countries can easily meet these liberalization targets without any significant reduction in effective protection for their respective agricultural sectors.

Despite this progress, a number of problems remain. The effort to harmonize the agreements has inevitably meant that some important issues have been ignored. In particular, “behind-the-border” issues such as public procurement and services have been excluded. In general, the more recently signed bilateral agreements have been broadly similar in terms of their provisions. However, some free-trade agreements existed prior to the memorandum and differ significantly with the general framework outlined in the memorandum. Furthermore, each agreement contains its own specific list of protected items. The bilateral approach does not offer any mechanism for harmonizing and ultimately reducing the list of protected goods. This will eventually put a break on any further trade reform.

More importantly, it is still unclear how the SEECs will move from the current bilateral framework to a more comprehensive free-trade area with the EU, which was envisaged in the Stability Pact. Thus, while the MoU certainly accelerated regional trade liberalization, the project is now coming to an end. If liberalization is to proceed further, then a more ambitious multilateral approach will be required. Three options are available to the SEECs: 1) joining the CEFTA; 2) harmonizing and extending the coverage of the current bilateral agreements, possibly on the basis of a new MoU; or 3) creating a new regional free-trade agreement. But before considering these options in detail, it is useful to further assess the impact of the CEFTA and BFTA on regional trade flows, using an estimated gravity model. As we shall see, the empirical evidence supports the hypothesis that the asymmetric liberalization reorientates trade towards the EU but that regional trade agreements can, to some extent, limit that tendency.

IV. ECONOMETRIC RESULTS

In an effort to assess the contribution of the CEFTA and BFTA to the strong export performance in the CEECs, we estimated a gravity model comprising of 37 countries for the period 1996–2000. These 37 countries—primarily OECD, Eastern European and CIS countries—were the main trading partners of the CEECs and SEECs and therefore capture virtually all the export markets for these two regions. The time period was chosen to exclude the conflicts that afflicted the former Yugoslavia. Despite its simplicity, the gravity model is widely used in empirical trade theory; it fits well to any theory of international trade from Heckscher Ohlin to new trade theories (for a discussion see Deardorff, 1995).

Previous authors have examined trade performance in transition economies using gravity models. However, the emphasis has tended to be on the effectiveness of the Europe Agreements, rather than on the CEFTA and BFTA (for an example see, Enders and Wonnacott, 1996). Some authors have looked at the underlying motivations for the CEFTA and BFTA. For example, Paas (2002) found that, for the Baltic countries, cultural proximity with its neighbors played an important role in re-establishing regional trade relationships. Others have used gravity models to examine why SEEC trade performance has been so poor. For example, Christie (2002) used a gravity model to examine SEEC trade performance. He found that in many cases, intraregional trade was much lower than what his estimated gravity model predicted.

We estimated an equation with the following functional form:¹⁰

$$EXP_{ijt} = \beta_0 + \beta_1 |GDPCAP_{it} - GDPCAP_{jt}| + \beta_2 \left(\frac{GDP_{it} + GDP_{jt}}{2} \right) + \beta_3 SIM_{ijt} + \beta_5 DIST_{ij} + \beta_6 Dummies + e_{it} \quad (1)$$

Where:

EXP_{ijt}	=	exports of country i to country j at time t,
$GDPCAP_{it}$	=	real GDP per capita of country i at time t
$GDPCAP_{jt}$	=	real GDP per capita of country j at time t
$DIST_{ij}$	=	distance in kilometers between the capitals of country i and j.
SIM_{ijt}	=	a similarity index.

Size, similarity, and proximity are the starting points for gravity models. The larger and closer two countries are, the more they trade. Therefore trade flows are primarily explained by differences in GDP per capita, the average of GDP of the two countries, distance, and factors proxying for similarity.

The GDP per capita term of each country is a proxy for the capital-labor ratio. By implication, the absolute difference in GDP per capita between two countries captures the difference in capital-labor ratios and therefore relative factor endowments. If this difference is large, then inter-industry trade predominates (for a more general discussion, see Hummels and Levinsohn 1995). Moreover, the closer two economies are to each other, the lower the transportation costs and the higher the bilateral trade. The distance variable is a proxy for transportation costs. It measures the distance in kilometers between the two capital cities.

¹⁰ The bilateral export data is taken from the IMF Direction of Trade database. We have taken the exchange rate, price, and real GDP per capita data from the Penn World Tables release 6.1. Distance data is taken from Byers (1999).

Our specification also allows for the Linder hypothesis, which suggests that countries with similar demand patterns are more likely to trade with each other (Linder, 1961). In particular, countries with similar manufacturing sectors will typically produce similar products. Therefore, each country produces goods that are demanded by consumers in other countries. The Linder hypothesis is often cited as an explanation for the prevalence of trade between OECD countries, much of which tends to be intra-industry trade. In order to capture the Linder hypothesis, we constructed a similarity index that controls for the relative size of partner countries in terms of output and hopefully captures the bilateral intra-industry trade (see Egger, 2000). The index is defined as:

$$SIM_{ijt} = [1 - (\frac{GDP_{it}}{GDP_{it} + GDP_{jt}})^2 - (\frac{GDP_{jt}}{GDP_{it} + GDP_{jt}})^2]$$

This index is bound between 0 and 0.5. The larger the index, the more similar are the countries in terms of output and the higher their intra-industry trade.

We captured the effects of the Europe Agreements and the regional trade agreements—the CEFTA and BFTA—with dummy variables. These variables account for the deviations from normal trade patterns. As previously argued, the Europe Agreements provided for asymmetric liberalization, with the EU liberalizing more quickly than the CEECs. Furthermore, the agreements limited the extent of trade reform in a number of sensitive areas, such as agriculture and textiles, where the CEECs had a comparative advantage. Therefore, the EU agreements will have a different impact on the CEECs and the EU. To control for this, we used two separate dummies: one measuring the impact of the Europe Agreements on the CEECs and one measuring the impact of the EU agreements on EU exports. In our regression, we called the first effect *Europe Agreements* and the second effect *EU preferential access to the CEECs*.

To take account of other country specific factors, we used dummy variables for language, common borders, and EU membership. We expected that countries with higher linguistic ties to have higher bilateral trade (for an example see Choi, 2002). The border dummy captures the potential common cultural ties between two adjacent countries that could facilitate trade. We also included a dummy variable for EU membership. The EU is a highly integrated bloc so we expected a higher than normal amount of trade between EU members.

Finally, we controlled for the earlier CMEA trade agreements. Since the CMEA was a forced agreement, pre-1990 trade was inefficiently high, there was little competition, and the quality of the products was poor. At the start of transition, few CEEC customers were willing to buy products from their former CMEA neighbors, and they turned to western producers. Thus, intra-CEEC trade fell during the early 1990s. Therefore, it is important to establish whether this fall was due to the after-effects of the CMEA agreement or if it is simply a return to the normal trading patterns. If the former is true, then the CMEA dummy variable must have a negative sign; if the latter is true, then the variable will be insignificant.

We estimated our model incorporating all the variables and dummies using OLS, a random effects-GLS estimator, and a fixed effects-within estimator. We attempted a first interpretation of the results. Based upon the relevant tests, we found that the fixed effect-within estimator appeared to be the correct specification. However, the fixed effect-within estimator cannot give an estimate of the coefficients of the time invariant dummy variables since they are wiped out in the estimation. To solve this problem, we used a two-step procedure proposed by Hsiao (1986). We took the estimated fixed effect of the within estimator and performed a cross-section regression of the latter on the dummy variables discussed above. Since the estimated fixed effect from the first step is unbiased, we can use it for the second step estimation procedure.

As Mátyás (1997, 1998) argued, the proper econometric specification of a panel data gravity model is a three-way error component. This is because there is a need to take account of exporting as well as the importing country's special features and the time specific effect. However, all the variables in the gravity equation are constructed as measures of country i relative to country j . So it seems more natural to us to assume that the specific effect in the error term is also expressed as a measure of country i to country j .¹¹ In other words, each cross section in our panel represents a different bilateral flow. Given the above, it would seem appropriate to estimate a two-way error component model. The Breuch and Pagen test gave a value of 9324.9, so the joint hypothesis that the time specific and the cross section specific effects are zero is rejected. However, if we test the hypothesis that the time specific effect is zero, we get an LM test statistic equal to 1.29 and thus we are unable to reject the null. In contrast, the hypothesis that the cross-section effect is zero is rejected (the respective LM test gave a value of 9323.6). Therefore, the cross-section specific effect could not be rejected. So we end up with a one-way error component model where the GLS estimator is preferred to the pooled OLS estimator.

In order to choose among alternative specifications, we performed a Hausman specification test (see Baltagi, 1995). This statistic will help us choose between the within fixed-effects and the GLS random effects estimators. The respective X^2 test statistic is 134 and thus the null hypothesis that the GLS estimator was the correct specification is rejected. Consequently, we concluded that the fixed-effects estimator was the more appropriate specification. Moreover, our findings were broadly consistent with those of Egger (2000).

Table 11 presents our estimation results. Since the within-fixed-effects estimator appears to be the most appropriate specification, we will focus on the interpretation of these results. All the variables have the expected signs. The coefficient of the GDP per capita variable is positively signed but insignificant. Recall that this variable suggests the predominance of inter-industry trade. The similarity variable is positively signed and statistically significant at the 10 percent confidence interval, suggesting the validity of the Linder hypothesis and the predominance of intra-industry trade in our sample.

¹¹ This is consistent also with the trade theoretic methodology where all variables affecting trade are expressed in relative terms.

Even though the GLS and OLS estimations do not represent the correct specification, we can use these results to form a preliminary idea about whether or not the preferential trade agreements and the other time invariant factors appear to have mattered. All but one of the preferential trade agreements have a positive and statistically significant impact on bilateral exports. The exception is the Europe Agreements, which is, in the case of the GLS estimation, a positive but statistically insignificant variable. Furthermore, both the distance and ex-CMEA variables are negative and statistically significant. In the second step of our estimation, we regressed the estimated fixed-effect given by the within estimator on a constant and the time invariant variables (see Appendix 1 for technical details). Initially, we performed a simple cross-section GLS regression to correct for the heteroskedasticity inherited in this two-step estimator (see Polacheck and Kim, 1994).

Table 11 also provides the results from the second stage cross-section of the two-step within estimator. All the preferential trade agreement variables are both positive and statistically significant. We therefore concluded that all the agreements were trade created for their members. The BFTA agreement was more effective than the CEFTA agreement. This is consistent with the fact that the BFTA agreement allowed more liberalized trade between its member states. More surprisingly, the parameter estimate for the Europe Agreements is smaller than either the CEFTA or BFTA parameters. Therefore, the bulk of the increase in EU-CEEC trade was due to a return to normal trading patterns rather than to the specific trade advantages offered by the Europe Agreements. As for all the other time invariant factors, they had the expected signs. However, the language dummy was insignificant, while the ex-CMEA dummy was negative and significant at a 10 percent confidence interval.

The above results give an explicit indication about the workings of the Europe Agreements. First of all the difference between the Europe Agreements and the EU preferential access to the CEECs' dummies emphasizes the asymmetric nature of the Europe Agreements. Furthermore, the large coefficients on the CEFTA and BFTA agreements, compared to the EU agreements, show the extent of the hub-and-spoke problem. Even though the Europe Agreements increased trade between the hub (EU) and the spokes (the CEECs), there was still considerable room for increased trade between the spokes. In this respect the CEFTA and BFTA agreements were a necessary condition for welfare gains from the Europe Agreements.

In order to get a rough idea of any gradual adjustment after the introduction of a preferential trade agreement, we performed a rather non-technical but very informative experiment. We estimated a cross-section variant of equation 1 for each time point of our data set. Although we obtained estimates for all the coefficients for each time period, we focused our attention on the coefficients for the various trade agreements. With the exception of the variable capturing the effects of Europe Agreements, the coefficients are rather smooth and stable (see Figure 1). The Europe Agreements' variable has an initial negative value but becomes positive for the remainder of the sample.

We also performed a poolability test to ensure that each cross section did not have specific information that warranted separate empirical investigation. This test gave an F-statistic of 0.60 compared to an F-critical of 1.5 at the one percent level of significance. This indicated that all the coefficients, including the dummy variables, are equal across time

and thus the panel data estimation is appropriate. Given the estimate of the Europe Agreements' variable is not constant over time, we examined whether the coefficient derived from the 1996 cross section was significantly different to that derived from the 2000 cross section. The t statistic was -3.31 and therefore we rejected the null hypothesis of equality over time. Therefore, we concluded that there was some evidence for an increasingly positive effect of the Europe Agreements.

V. POLICY CONCLUSIONS

The originators of the CEFTA and BFTA can be satisfied with the achievements of these arrangements. The empirical evidence confirms that both arrangements had a positive effect on intraregional trade. Furthermore, these agreements confirmed the CEECs' capacity to develop cooperative multilateral structures. As time went on, CEFTA membership was expanded and its coverage of goods was increased. While the BFTA did not enlarge, it did tackle some very difficult issues, such as agriculture and fisheries. The agreements had a more limited effect on reducing the hub-and-spoke problem. Despite the significant regional trade-liberalization embedded within the agreements, the EU remained the dominant trading partner for all the CEECs.

The success of the two agreements offers some important lessons for the SEECs. Somewhat belatedly, the SEECs have taken a more serious approach to regional trade liberalization. The region is now finishing work on creating a network of bilateral free-trade agreements. However, once the network is complete, it is not clear where liberalization efforts in the SEECs will go. Ultimately, further progress would require a more multilateral approach. Broadly speaking, the SEECs have three options: 1) a southward enlargement of the CEFTA; 2) a further harmonization of the network of bilateral free-trade agreements (FTAs); and 3) the creation of a new FTA for the SEECs.

Accession to the CEFTA is an attractive option for the more advanced SEECs. In 2004, five of the eight members of the CEFTA will accede to the EU. A further southward enlargement of the CEFTA would provide an opportunity to deepen the recent steps made by the SEECs toward regional trade integration. This could provide an opportunity to reconsider the future of the CEFTA and even revise the membership criteria. However, a southward enlargement would require a relaxation of CEFTA membership rules. In particular, the requirement of World Trade Organization (WTO) membership as a prerequisite for CEFTA membership would have to be amended. Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro are not yet members of the WTO and have much to do before WTO accession becomes a realistic prospect. To some extent, this has already started, as indicated by Croatia's recent accession to the CEFTA. Furthermore, the former Yugoslav Republic of Macedonia has also recently expressed a desire to join.

If the remaining three CEFTA members choose not to relax the membership criteria, then the SEECs could further develop the existing bilateral approach. The current agreements could be revised to cover more difficult and controversial areas, such as agriculture, services, and public procurement. However, this is unlikely to be achieved simply through the existing Memorandum of Understanding (MoU). The SEECs could develop a second MoU. This memorandum could lay out further guidelines for harmonizing

the existing agreements and tackling trade liberalization in sensitive areas. On the basis of a second memorandum, the existing bilateral agreements could be renegotiated and extended. However, such an approach is likely to be complex and cumbersome and probably would not yield significant results.

Creating a more general multilateral agreement would be a more practical approach.

The current network of bilateral free-trade agreements has laid the foundations for moving toward a more comprehensive regional free-trade agreement. This approach would further tackle the hub-and-spoke problem inherent in the trade agreements of the SEECs with the EU. A new general agreement could also offer the opportunity to include more difficult issues such as agriculture, services, and public procurement.

Within the next ten years, there is a realistic possibility that at least some countries within Southeastern Europe could join the European Union. The Stability and Association process holds out the possibility of a Balkan enlargement. Therefore, the SEECs now face the same challenges that the CEECs faced in the early 1990s. Can the SEECs adopt a more cooperative and multilateral approach to economic policy management, and can the the SEECs develop regional trade as a bulwark against growing dependence on EU markets? Like their northern counterparts, the SEECs may find that making further progress toward regional trade cooperation will strengthen the case for, and accelerate, a southward enlargement of the European Union.

I. DESCRIPTION OF TWO-STEP, FIXED-EFFECT ESTIMATION METHOD

Assume we have N bilateral flows and T time periods. In a simple linear panel data model with two variables, one of which is constant over time, we have:

$$y_{it} = X'_{it} \beta + D'_i \gamma + e_{it} \quad (A1)$$

where y_{it} is the NT x 1 column vector of the dependent variable, X'_{it} is the NT x 1 matrix of the independent variable and D_i , a time invariant variable, β is a scalar to be estimated, and e_{it} is the disturbances. To decide which is the correct estimator for (A1), we must first determine how e_{it} is specified.

According to the Breusch-Pagan LM test in e_{it} , there exists a cross-section specific effect but no time specific effect. So the correct assumption for e_{it} is that:

$$e_{it} = \mu_i + \varepsilon_{it} \quad (A2)$$

where ε_{it} is a zero mean, constant variance random error. The μ_i represents the unobservable cross-section (bilateral) specific effect. Furthermore, the Hausman test indicates that μ_i is a fixed parameter. Thus in order to estimate (A1) we can simply take the average over time of equation (A1) and subtract it from (A1). This is the so-called within group-fixed effect estimator (see Baltagi, 1995):

$$y_{it} - \bar{y}_i = (X'_{it} - \bar{X}'_{it})\beta + (e_{it} - \bar{e}_i) \quad (A3)$$

In turn, this reduces to:

$$(y_{it} - \bar{y}_i) = (X'_{it} - \bar{X}'_{it})\beta + (\varepsilon_{it} - \bar{\varepsilon}_i) \quad (A4)$$

To estimate β in equation A4 we can simply use OLS. Note that what we have done here is to estimate our model in terms of deviations from the group means. This is done in order to wipe out the fixed-effect μ_i . However, by differencing from the group average we also wipe out all cross-section specific data. With equation (A3), we cannot directly estimate the cross-section specific dummies in our model. To overcome this difficulty we estimate (A4) with OLS and then calculated the estimated μ_i by:

$$\hat{\mu}_i = \bar{y}_i - \bar{X}'_i \hat{\beta} \quad (A5)$$

where the hat above variables denotes predicted values. What we get is an unbiased¹² estimator of μ_i . Given that it is unbiased we can estimate an equation of the form:

$$\hat{\mu}_i = \gamma D_i + u_i \quad (\text{A6})$$

where (A6) is a regression of the estimated time invariant variables over the fixed-effect as estimated from (A4). So we can indirectly estimate the coefficient γ of the time invariant variables involved in equation (A1) with the within-group estimator.

¹² But inconsistent. However we can use the estimated $\hat{\mu}_i$ in a second step regression and obtain unbiased and consistent estimates.

Table 1. Central and Eastern Europe: Total Exports, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(millions of U.S. dollars)									
CEFTA	53,427	65,591	83,184	89,284	98,065	109,873	109,496	124,400	134,523
Czech Republic	11,774	14,281	17,178	22,132	22,504	26,420	26,238	28,941	30,050
Hungary	8,598	10,588	12,861	13,145	19,100	23,005	24,849	28,087	30,153
Poland	14,143	17,240	22,895	24,440	25,751	28,228	27,407	31,644	36,050
Romania	4,892	6,160	8,061	7,644	8,387	8,315	8,509	10,367	11,386
Bulgaria	2,319	3,400	5,220	4,781	4,314	4,150	3,755	4,760	5,062
Slovenia	6,241	7,232	8,389	8,312	8,372	9,034	8,505	8,728	9,189
Slovak Republic	5,460	6,691	8,579	8,831	9,639	10,720	10,233	11,874	12,631
BFTA	3,004	4,330	5,829	6,782	8,464	8,766	7,744	9,502	10,593
Estonia	805	1,312	1,840	2,077	2,931	3,244	3,017	3,828	4,011
Latvia	1,040	990	1,284	1,424	1,670	1,811	1,723	1,865	2,000
Lithuania	1,159	2,029	2,706	3,281	3,862	3,711	3,004	3,808	4,581
SEE	5,171	5,582	6,154	6,730	7,358	8,009	7,111	7,339	7,973
Croatia	3,904	4,260	4,632	4,512	4,332	4,557	4,226	4,071	4,543
Bosnia & Herzegovina	85	36	52	181	381	511	599	669	742
Albania	122	141	202	211	141	206	275	255	319
Serbia & Montenegro	4	57	66	678	1,268	1,424	818	1,025	1,154
Macedonia, FYR	1,055	1,086	1,203	1,148	1,237	1,311	1,192	1,319	1,216
(Index 1996=100)									
CEFTA	60	73	93	100	110	123	123	139	151
Czech Republic	53	65	78	100	102	119	119	131	136
Hungary	65	81	98	100	145	175	189	214	229
Poland	58	71	94	100	105	116	112	129	148
Romania	64	81	105	100	110	109	111	136	149
Bulgaria	49	71	109	100	90	87	79	100	106
Slovenia	75	87	101	100	101	109	102	105	111
Slovak Republic	62	76	97	100	109	121	116	134	143
BFTA	44	64	86	100	125	129	114	140	156
Estonia	39	63	89	100	141	156	145	184	193
Latvia	73	70	90	100	117	127	121	131	140
Lithuania	35	62	82	100	118	113	92	116	140
SEE	77	83	91	100	109	119	106	109	118
Croatia	87	94	103	100	96	101	94	90	101
Bosnia & Herzegovina	47	20	28	100	210	282	331	369	409
Albania	58	67	96	100	67	98	131	121	151
Serbia & Montenegro	1	8	10	100	187	210	121	151	170
Macedonia, FYR	92	95	105	100	108	114	104	115	106
<u>Memorandum items</u>									
Cumulative export growth (1993–2001)									
CEFTA	253								
BFTA	398								
SEE	92								

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

Table 2. Central and Eastern Europe: Exports to European Union (EU), 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(millions of U.S. dollars)									
CEFTA	29,712	37,641	48,646	52,438	60,249	72,436	75,747	84,861	91,769
Czech Republic	6,354	7,480	9,273	12,760	13,557	16,976	18,172	19,905	20,490
Hungary	4,982	6,818	8,077	8,234	13,603	16,782	18,927	21,117	22,435
Poland	9,794	11,929	16,039	16,248	16,533	19,285	19,338	22,154	24,995
Romania	2,027	2,970	4,388	4,271	4,752	5,369	5,572	6,630	7,737
Bulgaria	1,090	1,564	2,013	1,913	1,942	2,137	2,035	2,463	2,794
Slovenia	3,847	4,539	5,648	5,369	5,321	5,917	5,625	5,577	5,750
Slovak Republic	1,618	2,340	3,208	3,645	4,540	5,970	6,076	7,015	7,569
BFTA	1,498	1,628	2,557	2,784	3,495	4,223	4,477	5,653	5,819
Estonia	389	628	1,006	1,060	1,424	1,788	1,894	2,623	2,405
Latvia	334	389	568	628	815	1,025	1,078	1,206	1,225
Lithuania	776	610	984	1,096	1,256	1,409	1,505	1,824	2,189
SEE	2,704	3,020	3,308	3,571	4,023	4,230	3,810	4,161	4,671
Croatia	2,214	2,531	2,672	2,302	2,220	2,172	2,088	2,234	2,467
Bosnia & Herzegovina	34	14	29	80	168	253	367	447	498
Albania	89	109	160	181	124	191	258	231	286
Serbia & Montenegro	3	5	38	516	1,055	1,036	564	686	894
Macedonia, FYR	364	361	409	491	456	578	533	561	526
(Index 1996=100)									
CEFTA	57	72	93	100	115	138	144	162	175
Czech Republic	50	59	73	100	106	133	142	156	161
Hungary	61	83	98	100	165	204	230	256	272
Poland	60	73	99	100	102	119	119	136	154
Romania	47	70	103	100	111	126	130	155	181
Bulgaria	57	82	105	100	102	112	106	129	146
Slovenia	72	85	105	100	99	110	105	104	107
Slovak Republic	44	64	88	100	125	164	167	192	208
BFTA	54	58	92	100	126	152	161	203	209
Estonia	37	59	95	100	134	169	179	248	227
Latvia	53	62	90	100	130	163	172	192	195
Lithuania	71	56	90	100	115	129	137	166	200
SEE	76	85	93	100	113	118	107	117	131
Croatia	96	110	116	100	96	94	91	97	107
Bosnia & Herzegovina	42	18	36	100	208	314	456	556	619
Albania	49	60	89	100	68	106	142	128	158
Serbia & Montenegro	1	1	7	100	204	201	109	133	173
Macedonia, FYR	74	74	83	100	93	118	109	114	107
Memorandum items									
Cumulative export growth (1993–2001)									
CEFTA	209								
BFTA	288								
SEE	73								

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

Table 3. Central and Eastern Europe: Market Share of EU Imports, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Exports in percent of total EU imports)								
CEFTA	2.13	2.37	2.54	2.68	3.05	3.51	3.51	3.71	4.08
Czech Republic	0.46	0.47	0.48	0.65	0.69	0.82	0.84	0.87	0.91
Hungary	0.36	0.43	0.42	0.42	0.69	0.81	0.88	0.92	1.00
Poland	0.70	0.75	0.84	0.83	0.84	0.93	0.90	0.97	1.11
Romania	0.15	0.19	0.23	0.22	0.24	0.26	0.26	0.29	0.34
Bulgaria	0.08	0.10	0.11	0.10	0.10	0.10	0.09	0.11	0.12
Slovenia	0.28	0.29	0.30	0.27	0.27	0.29	0.26	0.24	0.26
Slovak Republic	0.12	0.15	0.17	0.19	0.23	0.29	0.28	0.31	0.34
BFTA	0.11	0.10	0.13	0.14	0.18	0.20	0.21	0.25	0.26
Estonia	0.03	0.04	0.05	0.05	0.07	0.09	0.09	0.11	0.11
Latvia	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.05	0.05
Lithuania	0.06	0.04	0.05	0.06	0.06	0.07	0.07	0.08	0.10
SEE	0.19	0.19	0.17	0.18	0.20	0.21	0.18	0.18	0.21
Croatia	0.16	0.16	0.14	0.12	0.11	0.11	0.10	0.10	0.11
Bosnia & Herzegovina	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02
Albania	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Serbia & Montenegro	0.00	0.00	0.00	0.03	0.05	0.05	0.03	0.03	0.04
Macedonia, FYR	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02
Memorandum item									
Total imports of the EU (billions of U.S. dollars)	1,395	1,588	1,914	1,956	1,974	2,063	2,158	2,287	2,247

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; SEE denotes Southeastern European countries; and EU denotes the European Union.

Table 4. Central and Eastern Europe: Exports to Central European Free Trade Area (CEFTA) Markets, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(millions of U.S. dollars)									
CEFTA 1/	7,775	9,283	12,118	12,874	13,169	14,234	13,226	15,108	16,488
Czech Republic	3,299	3,553	4,405	5,085	4,975	5,301	4,611	4,838	5,032
Hungary	371	989	1,409	1,459	1,748	2,086	1,947	2,289	2,719
Poland	598	735	1,381	1,602	1,802	2,091	2,237	2,662	3,149
Romania	267	379	338	341	403	447	597	848	808
Bulgaria	127	149	193	170	144	212	173	191	247
Slovenia	316	335	437	482	517	607	616	691	739
Slovak Republic	2,797	3,143	3,956	3,734	3,581	3,489	3,044	3,588	3,794
BFTA 2/	153	193	223	209	196	231	261	383	472
Estonia	20	21	31	31	32	31	35	59	70
Latvia	41	26	47	35	35	48	45	59	68
Lithuania	92	146	146	143	129	152	181	265	334
SEE 2/	1,017	1,078	1,180	1,059	1,000	982	841	896	857
Croatia	803	730	795	796	718	561	574	568	563
Bosnia & Herzegovina	15	5	8	18	38	59	62	73	77
Albania	4	3	4	4	3	3	2	2	2
Serbia & Montenegro	0	0	0	105	128	255	129	191	160
Macedonia, FYR	196	341	372	137	113	104	73	62	54
(Index 1996=100)									
CEFTA	60.4	72.1	94.1	100.0	102.3	110.6	102.7	117.3	128.1
Czech Republic	64.9	69.9	86.6	100.0	97.8	104.2	90.7	95.1	99.0
Hungary	25.4	67.8	96.6	100.0	119.8	143.0	133.5	156.9	186.4
Poland	37.3	45.9	86.2	100.0	112.4	130.5	139.6	166.1	196.5
Romania	78.4	111.2	99.0	100.0	118.2	131.1	175.2	248.8	236.8
Bulgaria	74.8	87.5	113.3	100.0	84.5	124.6	101.7	112.0	145.1
Slovenia	65.4	69.4	90.6	100.0	107.1	125.9	127.7	143.3	153.3
Slovak Republic	74.9	84.2	105.9	100.0	95.9	93.4	81.5	96.1	101.6
BFTA	73.2	92.2	106.8	100.0	94.0	110.4	125.0	183.1	226.1
Estonia	63.8	67.4	98.1	100.0	103.5	99.5	112.4	189.6	224.0
Latvia	117.3	74.5	133.3	100.0	99.9	135.3	129.2	167.0	194.8
Lithuania	64.3	102.0	102.1	100.0	90.5	106.6	126.7	185.7	234.2
SEE	96.1	101.8	111.5	100.0	94.4	92.7	79.4	84.6	80.9
Croatia	100.9	91.7	100.0	100.0	90.3	70.5	72.2	71.4	70.7
Bosnia & Herzegovina	82.0	27.3	44.5	100.0	213.6	331.4	353.1	415.6	437.3
Albania	102.3	73.1	119.2	100.0	72.6	94.2	60.8	45.4	54.9
Serbia & Montenegro	0.0	0.0	0.5	100.0	121.8	242.7	122.5	182.0	152.7
Macedonia, FYR	143.6	249.3	272.1	100.0	82.6	76.1	53.5	45.2	39.7
<u>Memorandum items</u>									
Cumulative export growth (1993-2001)									
CEFTA	112								
BFTA	209								
SEEC	-16								

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

1/ Exports of CEFTA member countries to other CEFTA members

2/ Exports of BFTA and SEE to CEFTA members

Table 5. Central and Eastern Europe: Market Share of CEFTA Countries' Imports, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(exports as a percent of total CEFTA imports)									
Intraregional trade	11.1	11.7	11.8	10.7	10.1	9.8	9.2	9.5	9.7
Czech Republic	4.7	4.5	4.3	4.2	3.8	3.6	3.2	3.0	2.9
Hungary	0.5	1.2	1.4	1.2	1.3	1.4	1.4	1.4	1.6
Poland	0.9	0.9	1.3	1.3	1.4	1.4	1.6	1.7	1.8
Romania	0.4	0.5	0.3	0.3	0.3	0.3	0.4	0.5	0.5
Bulgaria	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Slovenia	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Slovak Republic	4.0	4.0	3.9	3.1	2.7	2.4	2.1	2.2	2.2
BFTA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Estonia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Latvia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lithuania	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
SEE	1.5	1.4	1.1	0.9	0.8	0.7	0.6	0.6	0.5
Croatia	1.1	0.9	0.8	0.7	0.6	0.4	0.4	0.4	0.3
Bosnia & Herzegovina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Albania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serbia & Montenegro	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1
Macedonia, FYR	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.0	0.0
Memorandum item									
Total imports of CEFTA (millions of U.S. dollars)	69,863	79,474	102,656	120,345	130,499	145,932	143,116	159,754	170,849

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

Table 6. Central and Eastern Europe: Exports to Baltic Free Trade Area (BFTA) Markets, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(millions of U.S. dollars)									
CEFTA 2/	103	324	473	680	847	1,065	1,050	1,212	1,516
Czech Republic	10	55	79	125	148	201	153	174	194
Hungary	0	44	66	106	99	96	92	91	119
Poland	74	173	267	368	508	681	728	859	1,089
Romania	2	7	2	3	4	3	2	2	5
Bulgaria	2	13	16	23	17	21	18	16	17
Slovenia	4	9	12	17	19	23	28	28	39
Slovak Republic	10	24	31	39	50	39	29	42	52
BFTA 1/	279	482	577	837	1,056	1,182	1,042	1,293	1,447
Estonia	99	179	213	290	431	457	378	395	443
Latvia	62	80	113	160	195	217	210	240	277
Lithuania	118	223	252	386	430	508	454	658	728
SEE 2/	0	1	1	1	2	2	2	3	9
Croatia	0	1	1	1	2	2	2	3	8
Bosnia & Herzegovina	0	0	0	0	0	0	0	0	1
Albania	0	0	0	0	0	0	0	0	0
Serbia & Montenegro	0	0	0	0	0	0	0	0	0
Macedonia, FYR	0	0	0	0	0	0	0	0	0
(Index 1996=100)									
CEFTA	15.1	47.7	69.6	100.0	124.5	156.6	154.5	178.2	222.9
Czech Republic	8.0	43.5	63.3	100.0	118.0	160.7	122.1	138.4	155.1
Hungary	0.0	41.8	62.5	100.0	93.7	90.9	87.5	86.2	112.6
Poland	20.1	47.0	72.4	100.0	138.0	185.0	197.5	233.1	295.7
Romania	96.0	288.0	72.0	100.0	168.0	134.8	85.6	94.0	212.0
Bulgaria	10.2	58.5	69.0	100.0	75.9	91.3	79.7	71.7	74.0
Slovenia	24.8	51.7	74.3	100.0	116.5	137.3	168.5	169.6	233.3
Slovak Republic	25.0	60.6	80.4	100.0	129.7	101.3	74.6	107.3	135.0
BFTA	33.3	57.6	69.0	100.0	126.2	141.3	124.6	154.6	173.0
Estonia	34.1	61.7	73.4	100.0	148.5	157.6	130.1	136.1	152.5
Latvia	38.8	50.3	70.4	100.0	121.9	135.3	131.3	150.1	173.0
Lithuania	30.5	57.7	65.1	100.0	111.3	131.5	117.7	170.3	188.5
SEE	7.6	102.8	99.8	100.0	152.0	158.8	193.9	302.4	822.3
Croatia	0.0	114.8	109.4	100.0	161.6	156.6	190.9	277.8	781.8
Bosnia & Herzegovina	...	...	...	...	...	...	...	...	...
Albania	...	...	...	...	...	...	...	...	...
Serbia & Montenegro	...	...	...	...	...	...	...	...	...
Macedonia, FYR	0.0	0.0	17.9	100.0	49.7	159.9	112.5	367.7	324.0
<u>Memorandum items</u>									
Cumulative export growth (1993–2001)									
CEFTA	1,377								
BFTA	419								
SEEC	10,748								

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEEC denotes Southeastern European Countries.

1/ Exports of BFTA member countries to other BFTA members

2/ Exports of CEFTA and SEE to BFTA members

Table 7. Central and Eastern Europe: Market Share of BFTA Countries' Imports, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(exports as a percent of total BFTA imports)									
CEFTA	3.1	6.0	5.9	6.9	6.6	7.7	8.8	8.9	10.1
Czech Republic	0.3	1.0	1.0	1.3	1.2	1.5	1.3	1.3	1.3
Hungary	0.0	0.8	0.8	1.1	0.8	0.7	0.8	0.7	0.8
Poland	2.2	3.2	3.3	3.7	4.0	4.9	6.1	6.3	7.2
Romania	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bulgaria	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1
Slovenia	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Slovak Republic	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.3
Intraregional trade	8.4	9.0	7.2	8.4	8.2	8.6	8.8	9.5	9.6
Estonia	3.0	3.3	2.7	2.9	3.4	3.3	3.2	2.9	2.9
Latvia	1.9	1.5	1.4	1.6	1.5	1.6	1.8	1.8	1.8
Lithuania	3.5	4.1	3.1	3.9	3.4	3.7	3.8	4.8	4.8
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Croatia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Bosnia & Herzegovina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Albania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serbia & Montenegro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Macedonia, FYR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum item									
Total imports of BFTA (millions of U.S. dollars)	3,339	5,383	8,005	9,925	12,801	13,773	11,891	13,657	15,043

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

Table 8. Central and Eastern Europe: Exports to European Union (EU), 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(percent of total exports)								
CEFTA	56	57	58	59	61	66	69	68	68
Czech Republic	54	52	54	58	60	64	69	69	68
Hungary	58	64	63	63	71	73	76	75	74
Poland	69	69	70	66	64	68	71	70	69
Romania	41	48	54	56	57	65	65	64	68
Bulgaria	47	46	39	40	45	51	54	52	55
Slovenia	62	63	67	65	64	65	66	64	63
Slovak Republic	30	35	37	41	47	56	59	59	60
BFTA	50	38	44	41	41	48	58	59	55
Estonia	48	48	55	51	49	55	63	69	60
Latvia	32	39	44	44	49	57	63	65	61
Lithuania	67	30	36	33	33	38	50	48	48
SEE	52	54	54	53	55	53	54	57	59
Croatia	57	59	58	51	51	48	49	55	54
Bosnia & Herzegovina	40	40	56	44	44	49	61	67	67
Albania	73	77	79	86	87	93	94	91	90
Serbia & Montenegro	81	9	58	76	83	73	69	67	77
Macedonia, FYR	35	33	34	43	37	44	45	43	43

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

Table 9. Central and Eastern Europe: Exports to Southeastern European (SEE) markets, 1993–2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
(millions of U.S. dollars)									
CEFTA 2/	1,138	1,637	2,210	2,242	2,213	2,259	2,191	2,287	2,545
Czech Republic	0	47	101	214	235	213	202	239	279
Hungary	5	149	178	316	365	382	389	403	481
Poland	58	49	61	66	61	94	107	116	156
Romania	34	41	56	47	44	41	40	57	54
Bulgaria	27	242	512	207	124	141	159	148	155
Slovenia	961	1,029	1,205	1,297	1,282	1,299	1,213	1,239	1,334
Slovak Republic	54	80	97	95	103	88	81	85	86
BFTA 2/	1	2	2	2	1	2	3	3	4
Estonia	0	0	0	1	0	1	2	1	0
Latvia	0	0	0	0	0	1	0	1	0
Lithuania	0	1	1	1	1	1	1	2	3
SEE 1/	353	485	532	773	967	960	814	699	836
Croatia	252	416	455	619	732	719	612	537	617
Bosnia & Herzegovina	13	4	9	61	131	149	113	75	118
Albania	15	7	10	8	10	4	5	3	4
Serbia & Montenegro	0	0	0	0	0	1	0	0	1
Macedonia, FYR	74	58	57	85	94	87	83	84	96
(Index 1996=100)									
CEFTA	50.7	73.0	98.6	100.0	98.7	100.7	97.7	102.0	113.5
Czech Republic	0.0	21.9	47.2	100.0	109.8	99.4	94.4	111.5	130.2
Hungary	1.5	47.0	56.1	100.0	115.3	120.9	123.1	127.5	152.0
Poland	88.4	74.1	92.7	100.0	93.1	142.8	161.8	176.7	237.3
Romania	71.6	86.6	120.3	100.0	93.4	88.3	84.7	120.8	115.6
Bulgaria	13.0	116.7	246.9	100.0	59.6	67.8	76.5	71.5	75.0
Slovenia	74.1	79.4	92.9	100.0	98.8	100.2	93.6	95.6	102.9
Slovak Republic	56.3	84.3	102.1	100.0	108.0	92.8	85.2	89.0	89.8
BFTA	38.2	112.4	98.4	100.0	83.8	109.1	178.5	192.8	254.0
Estonia	19.3	20.9	61.3	100.0	28.9	76.5	228.2	115.5	57.8
Latvia	306.0	109.4	74.4	100.0	49.6	361.5	220.5	365.8	134.1
Lithuania	3.9	197.0	137.1	100.0	140.9	90.3	124.8	230.3	457.4
SEE	45.7	62.7	68.8	100.0	125.1	124.2	105.3	90.4	108.2
Croatia	40.6	67.1	73.5	100.0	118.1	116.0	98.8	86.7	99.7
Bosnia & Herzegovina	20.9	6.1	14.2	100.0	215.7	245.3	186.9	123.1	194.3
Albania	188.7	91.8	128.4	100.0	122.2	54.9	57.7	39.1	49.7
Serbia & Montenegro	...	...	...	...	...	...	...	...	...
Macedonia, FYR	87.2	68.3	67.8	100.0	111.3	102.6	98.3	98.6	113.6
Memorandum items									
Cumulative export growth (1993–2001)									
CEFTA	124								
BFTA	565								
SEEC	137								

Source: IMF, Direction of Trade database.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; and SEE denotes Southeastern European countries.

1/ Exports of SEE countries to other SEE countries

2/ Exports of CEFTA and BFTA to SEE members

Table 10. Southeastern Europe: Status of June 2002 Memorandum of Understanding on Bilateral Free-Trade Agreements
(As of March 14, 2003)

	Albania	Bosnia and Herzegovina	Bulgaria	Croatia	Macedonia, FYR	Romania
Bosnia and Herzegovina	Initialed					
Bulgaria	Initialed	Initialed				
Croatia	Signed	In operation	CEFTA			
Macedonia, FYR	In operation	In operation	In operation	In operation		
Romania	Signed	Initialed	CEFTA	In operation	Signed	
Serbia and Montenegro 1/	Initialed	In operation	Initialed	Signed	In operation	Initialed
Memorandum items						
Agreements in operation	8					
Signed agreements	4					
Initialed agreements	7					
Bilateral CEFTA agreements	2					
Total	21					

Source: Stability Pact.

Notes: CEFTA denotes the Central European Free Trade Area.

1/ Serbia and Montenegro started negotiation process when it was know as FR Yugoslavia; therefore, both names may appear in the agreements.

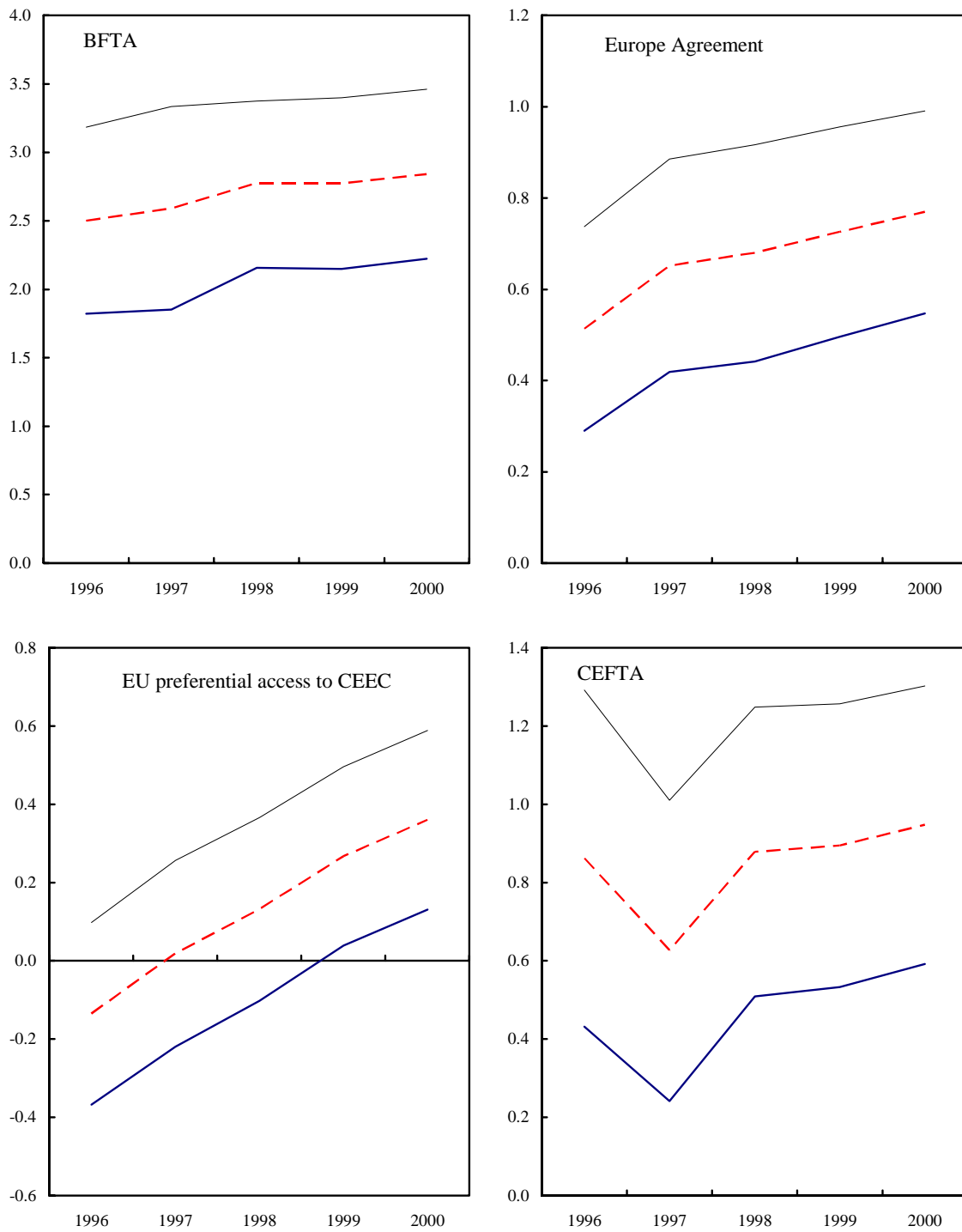
Table 11. Model Estimation

	Fixed Effects	Random Effects	OLS	Second-Stage Cross Section
Constant	-30,42*** (-12.38)	-32,1*** (-36.68)	-30,38*** (-63.51)	0.541 (4.69)
Difference in GDP per capita	0.0523 (0.44)	-0,867*** (12.95)	-1.269*** (-30.33)	... ...
Average GDP	1,797*** (14.44)	1,9*** (43.45)	1.833*** (78.16)	... ...
Similarity	1,56* (1.73)	4,87*** (17.79)	4.801*** (37.12)	... ...
Distance	... ...	-0,0006*** (-15.52)	-0.0006*** (-28.36)	-0.0008*** (-15.70)
Language	... ...	0,497** (2.05)	0.549*** (5.92)	0.059 (0.35)
BFTA	... ...	2,89*** (4.89)	2.69*** (18.02)	3.69*** (10.26)
CEFTA	... ...	0,4823*** (4.92)	0.825*** (9.65)	1.521*** (7.65)
Europe Agreements	... ...	0.201 (1.49)	0.13** (2.46)	0.277** (2.21)
EU preferential access to CEEC	... ...	0,73*** (5.52)	0.67*** (12.84)	0.787*** (6.37)
EU	... ...	0,817*** (6.06)	0.531*** (10.05)	1.84*** (16.20)
Ex-COMECON	... ...	-0,442*** (-3.54)	-0.67*** (-9.23)	-0.245* (-1.66)
Border	... ...	1,384*** (8.97)	1.234*** (30.28)	1.224*** (10.68)
R ²	0.41	0.74	0.74	0.61
Hausman	134.36	...	...	...
LM ₁ (cross-section effects)	9,323.57	...	...	...
LM ₂ (time effects)	1.29	...	...	...

Source: Estimates of authors.

Notes: BFTA denotes the Baltic Free Trade Area; CEFTA denotes the Central European Free Trade Area; EU denotes the European Union; CEEC denotes Central and Eastern European Countries; and COMECON denotes the Council for Mutual Economic Assistance. Numbers in parentheses indicate t statistics, * significant at 10%, ** significant at 5%, *** significant at 1%.

Figure 1. Cross Sectional Estimated Parameter Values for Trade Agreements, 1996–2000



Source: Estimates of authors.

Notes: CEFTA denotes the Central European Free Trade Area; BFTA denotes the Baltic Free Trade Area; EU denotes the European Union.

1/ Intervals around the parameter value are confidence intervals at the 95 percent level of significance.

REFERENCES

- Adam, A., and T. Moutos, 2002, "The Political Economy of EU Enlargement or Why Japan Is Not A Candidate Country," CESifo Working Paper, No.704 (7).
- Baldwin, R.E., 1993, "A Domino Theory of Regionalism," NBER Working Paper No.4465.
- , 1994, "Towards an Integrated Europe," CEPR, London.
- , 1995, "The Eastern Enlargement of the European Union," *European Economic Review*, (39), p. 474–481.
- J. Francois and R. Portes, 1997, "The Costs and Benefits of Eastern Enlargement: The Impact on EU and Central Europe," *Economic Policy*, (10), p.127–176.
- Baltagi, B., 1995, "Econometric Analysis of Panel Data," New York: John Wiley and Sons.
- Byers, J.A., 1999, "Great Circle Distances," available on the Internet at: <http://www.wcrl.ars.usda.gov/cec/moregen.htm>, Western Cotton Research Laboratory, Phoenix, AZ.
- Choi, E. K., 2002, "Trade and the Adoption of a Universal Language," *International Review of Economics and Finance*, (11), p.265–275.
- Christie, E., 2002, "Potential Trade in Southeast Europe: A Gravity Model Approach," WIIW Working Papers No. 21.
- Deardorff, A., 1995, "The Determinants of Bilateral Trade: Does Gravity Work In A Neo-Classical World," NBER Working Paper, No. 5377, Cambridge, MA, and National Bureau of Economic Research.
- Egger, P., 2000, "A Note On the Proper Econometric Specification of the Gravity Equation," *Economics Letters*, (66), p. 25–31.
- Enders, A. and R. Wonnacott, 1996, "The Liberalization of East-West European Trade: Hubs, Spokes and Further Complications," *The World Economy*, Oxford.
- Feldman, M., and R. Sally, 2002, "From the Soviet Union to the European Union: Estonian Trade Policy, 1991–2000," *The World Economy*, (2)5, p.79–106.
- Hsiao, C., 1986, "Analysis of Panel Data," Cambridge University Press, Cambridge, MA.
- Hummels, D., and J. Levinsohn, 1995, "Monopolistic Competition and International Trade: Reconsidering the Evidence," *Quarterly Journal of Economics*, 110(3), p. 799–836.

- Kazlauskienė, N., and Meyers, W.H., 1999, "The Baltic Free-Trade Agreement In Agriculture: Early Results of the Experiment," *MOCT-MOST*, (9), p. 291–305.
- Lavigne, M., 1995, "The Economics of Transition," MacMillan: London.
- Levy, P., 1997, "A Political Economy Analysis of Free-Trade Agreements," *American Economic Review*, (87), p. 506–519.
- Linder, S., 1961, "An Essay on Trade and Transformation," New York: Wiley and Sons.
- Mátyás, L., 1997, "Proper Econometric Specification of the Gravity Model," *The World Economy*, (20), p. 363–368.
- , "The Gravity Model: Some Econometric Considerations," *The World Economy*, (21), p. 397–401.
- McQueen, M., 2002, "The EU's Free-Trade Agreements with Developing Countries: A Case of Wishful Thinking?" *The World Economy*, (25), p. 1396–1385.
- Messerlin, P., and P. Miroudot, 2003, "Trade-Liberalization in Southeast Europe: A First View on Eighteen FTAs," unpublished paper.
- Michalopoulos, C., 2002, "A Strategy for Trade Integration In Southeast Europe: Accomplishments and Future Challenges," paper presented to the International Business Forum on Trade-Liberalization and Facilitation in Southeast Europe, Belgrade, October 7–8, 2002.
- Paas, T., 2002, "Gravity Approach for Exploring Baltic Sea Regional Integration in the Field of International Trade," *Hamburgisches Welt-Wirtschafts-Archiv (HWWA)*, Hamburg.
- Polacheck, S.W., and Kim, M., 1994, "Panel Estimates of the Gender Earnings Gap: Individual-Specific Intercept and Individual-Specific Slope Models," (in Neuman, S., and Silber, J., (Eds.)). "The Econometrics of Labor Market Segregation and Discrimination," *Journal of Econometrics*, (61), p. 23–42.
- Richardson, M., 1994, "Why A Free-Trade Area? The Tariff Also Rises," *Economics and Politics*, (6), p.79–95.
- Richter, S., 1998, "The CEFTA and the Europe Agreements," *MOCT-MOST*, (8), p. 91–119.
- Rudka, A., and K. Mizsei, 1994, "The Fall of Trade in East Central Europe: Is CEFTA the Right Solution?" *Russian and East European Finance and Trade*.
- Wijkman, P. M., 2003, "The Emergence of A Free-Trade Area in Southeastern Europe: the Economic Means to A Political End," conference paper presented to the Swedish Network for European Studies in Business and Economics, May 20–23, 2003.