



# Macedonian and Slovenian Trade after the Break-up of Former Yugoslavia: Focus on the European Union

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## **Interim Report**

**IR-99-018/June**

### **Macedonian and Slovenian Trade after the Break-up of Former Yugoslavia: Focus on the European Union**

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## Contents

INTRODUCTION.....	1
OVERVIEW OF TRADE POLICY IN SLOVENIA AND MACEDONIA .....	5
A Divergent Legacy .....	5
Slovenia .....	6
Macedonia .....	7
A DETAILED LOOK AT SLOVENIAN AND MACEDONIAN TRADE.....	10
Motivation and Limitations .....	10
Evidence on Trade Patterns from Overall Data.....	14
Trade with the EU: Concentration and Similarity.....	19
Trade with the EU: Specialization and Factor Intensity.....	21
Trade with the EU: Intra-industry Trade.....	25
IMPLICATIONS AND CONCLUDING REMARKS .....	26
REFERENCES.....	28

## Abstract

An American economist presents a statistical analysis of Macedonian foreign trade patterns since the break-up of former Yugoslavia, in the context of a comparison with Slovenia. After examining the countries' overall trade performance and policy, Gini-Hirshmann indexes of concentration, Grubel-Lloyd indexes of intra-industry trade (IIT), and similarity indexes are presented, along with a description of the main exports from the two countries to the EU and an evaluation of the factor intensity thereof. The results show that Macedonia's trade in comparison with Slovenia's is more unbalanced and less EU-oriented; its exports are more labor-intensive and concentrated in low-wage sectors; the structure of its trade with the EU differs greatly from Slovenia's; and it engages in little intra-industry trade with the EU. Macedonian trade patterns are suggestive of those of a developing country, indeed of one falling further behind the leading transition countries. *Journal of Economic Literature*, Classification Numbers: F14, P27, F13. 5 tables. 26 references.

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# Macedonian and Slovenian Trade after the Break-up of Former Yugoslavia: Focus on the European Union

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## INTRODUCTION

One of the most instructive ways to examine countries' progress in transition and their levels of economic development is to look at their trading patterns. For new countries, such as those that emerged from the break-up of Czechoslovakia, the Soviet Union, or the former Yugoslavia, such an examination can also teach us a good deal about their success in establishing themselves as economically viable nations and the degree of distortion of their economies before independence.

For virtually all European transition countries, the importance of trade and other forms of integration with the European Union (EU) is such that the study of that trade is particularly important and instructive. This is fortunate, because very detailed and recent data are available from Eurostat on the EU's trade with all other countries in the world.

Moreover, even for Balkan countries that do not have associate status with the EU and trade relatively little with that body – including Albania, Bosnia-Herzegovina, Macedonia, and Federal Yugoslavia, and to a much lesser extent Croatia – such data are extremely valuable. They enable us to avoid the conundrums involved in trying to examine their trade with each other and with the members of the Commonwealth of Independent States. These problems include the facts that such trade in certain instances was in violation of UN Security Council sanctions, in others is on a barter basis, and in still others is border trade not captured in official statistics.<sup>1</sup>

A comparison of the Slovenian and Macedonian experiences in this context is especially instructive from a variety of standpoints.<sup>2</sup> The two countries are virtually identical in population and gained independence at approximately the same time (October 1991 in Slovenia, April 1992 in Macedonia). They share a number of common features of the former Yugoslav legacy, including price levels more similar to the EU member states than to even the most developed formerly planned economies; a strong insider role in enterprise management, including some holdovers from the self-management system; and a reticent attitude – at least at the enterprise level – toward foreign investment.

Nonetheless, in other respects the countries could not be more different:

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<sup>1</sup> However, focusing on trade with the EU does not avoid all the pitfalls of wandering into the quagmire of economic relations among new countries that recently emerged from the same common state. For instance, in the early years after independence, Macedonian goods that entered the EU via Slovenia were often recorded as originating in Slovenia, a practice that is now said to be much less common.

<sup>2</sup> For general looks at the early experiences with economic performance and policy in Slovenia and Macedonia after independence, see Kraft, Vodopivec, and Cvikel (1995) and Štiblar (1994) on Slovenia, and Wyzan (1993, 1995) on Macedonia.



- Slovenia is the most developed transition country (with a gross domestic product (GDP) per capita at market exchange rates of \$9,101 in 1997<sup>3</sup>), with approximately the highest degree of trade dependence on the EU among such countries (69 percent for both exports and imports in 1998; see below), while Macedonia is among the poorest European countries,<sup>4</sup> and has the one of the lowest degrees of such trade dependence on the continent, with certain CIS countries (especially Ukraine) among its leading trade partners;
- Slovenia is one of five countries currently negotiating with the EU to accede to that body, despite being relatively late to sign an association agreement with it (in June 1996, with an interim agreement going into effect in 1997), while Macedonia has not yet even signed such an agreement and is considered a “non-candidate country”;<sup>5</sup>
- despite some political problems with Italy (and Croatia), Slovenia enjoys very close trade relations with all neighboring countries, while Greece, Macedonia’s only prosperous and stable neighbor, unilaterally blockaded their common border from February 1994 through September 1995 (after establishing partial embargoes in 1991 and 1992), and even now is not a particularly important trading partner; Macedonia was also heavily affected by the full UN Security Council sanctions against Federal Yugoslavia (which in earlier times had accounted for about 60 percent of Macedonia’s “exports,” including sales to other former republics; Sekulovska-Gaber, 1996, p. 21) in place from May 1992 to November 1995;<sup>6</sup>
- Slovenia’s trade with CMEA markets dwindled after the early 1970s (see, e.g., Štiblar, 1997, pp. 240-242), so that by 1990 the socialist and former socialist world (not including Former Yugoslavia) accounted for 20.5 percent of exports and 13.5 percent of imports, while Macedonia has always had close trade relations with the other socialist countries, with 38 percent of both its exports and imports being with such countries in that year (Wyżan, 1995, pp. 200-201).
- Slovenia’s economy is sufficiently strong that it has been able to enjoy a balanced current account and a modest foreign debt, and grow steadily at a respectable rate, while Macedonia has had significant trade and current account deficits, the “financing [of which] is ... unidentified – although it does not appear to have been debt creating” (International Monetary Fund, 1998, p. 74).

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<sup>3</sup> European Bank for Reconstruction and Development (EBRD), *Transition Report 1998*, p. 227.

<sup>4</sup> Precisely how poor Macedonia is in some dispute, even based on calculations made at market exchange rates (in addition to the usual differences arising from the alternative use of market and purchasing power parity rates). The EBRD has tended to report relatively high figures, most recently \$1,663 for 1997 (*Transition Report 1998*, p. 215), which would put it ahead of Albania, Bulgaria, Romania, and Federal Yugoslavia. The Vienna Institute for Comparative Economic Studies, one of the few organizations that has already published estimates of 1998 GDP per capita, has an even higher figure for that year, \$1,800, which in their calculations puts it ahead of three of these nations and approximately tied with Romania (Pöschl et al., 1999, pp. 40, 56, 64, 85). On the other hand, World Bank (*World Development Report 1998*, pp. 190-191) reports a figure of \$1,090 for gross national product per capita in 1997, which ranks it well below Bulgaria and Romania.

<sup>5</sup> There has, however, very recently been progress in EU-Macedonian relations, with the signing in Brussels on 5 March 1999 of a joint declaration stating that the country would soon receive associate status; preparations for negotiations are set to begin in June 1999. Not being a candidate member of the EU, the European Commission has not produced an official Opinion on Macedonia, as it did in July 1997 for the ten candidate countries. However, it was reported in early March that the Commission is pleased with the country’s implementation of the current cooperation agreement (signed in April 1997, effective January 1998), its participation in the PHARE program, its efforts to intensify the democratic process, the relaxation of inter-ethnic relations, and the stability and maturity of the state (MILS news agency, March 8, 1999).

<sup>6</sup> Sekulovska-Gaber (1996) finds that the Greek embargo had a significantly negative effect on the demand for Macedonia’s exports during January 1990 to December 1995, but was unable to find such evidence relative to the UN sanctions, perhaps because the two dummy variables are multicollinear.

- After the start in late March 1999 of the bombing by the North Atlantic Treaty Organization of Federal Yugoslavia, Macedonia has suffered enormously from an influx of Kosovar refugees, which had as of early May reached about 13 percent of its population (230,000 people), and from broken connections with that country, a major trading partner in its own right (see below), and through which 90 percent of trade with the EU normally flows; Slovenia, on the other hand, will probably be affected only slightly by this latest war of Yugoslav succession, although it is possible that there will be a reduction in foreign direct investment (FDI), due to an increase in the perceived risk of making such investments in the region.

Table 1 contains data on total Slovenian and Macedonian exports and imports from 1985 through 1998, that is, for the final six years when both countries were still constituent republics of former Yugoslavia and for their first eight years as independent states. It should be noted in passing that, as discussed by International Monetary Fund (1998, p. 81-82), Macedonian trade and other balance of payments data are subject to an unusually large degree of error. In particular, while trade figures for 1997 and 1998 reflect methodological improvements, those for the preceding years have not been revised.

Taking the aforementioned differences as background, in this paper we examine in detail Macedonian and Slovenian trade patterns, with the focus on the EU. Our objectives are threefold. First, we aim by observing such patterns to derive evidence on the progress of the transition in the two countries, especially in the far less studied case of Macedonia. Our second objective is to determine the extent to which those patterns are characteristic of more- or less-developed countries and the extent to which those patterns have evolved since independence. Finally, we consider the degree to which changes in trade patterns since independence are informative with respect to the distortions to those patterns during the Yugoslav period.

The paper is organized as follows. The next section takes a brief look at the countries' overall trade performance and policy. The third discusses and presents calculations for each country of Gini-Hirschmann indexes of concentration, Grubel-Lloyd indexes of intra-industry trade (IIT), along with similarity indexes between them. It also describes the main exports from the two countries to the EU and provides an evaluation of the factor intensity thereof. The final section summarizes and concludes.

**Table 1.** Slovenian, and Macedonian Total Trade (million USD)

Pre-Independence				
	Slovenia		Macedonia	
	Exports	Imports	Exports	Imports
1985	2,111	2,076	547	863
1986	2,567	2,740	491	756
1987	2,757	2,722	603	778
1988	3,278	2,913	661	866
1989	3,409	3,216	654	934
1990	4,118	4,727	1,113	1,531
Post-Independence				
	Slovenia		Macedonia	
	Exports	Imports	Exports	Imports
1991	3,874	4,131	1,150	1,375
1992	6,681	6,141	1,199	1,206
1993	6,241	6,499	1,055	1,199
1994	7,232	6,866	1,086	1,484
1995	8,389	9,645	1,202	1,708
1996	8,312	9,429	1,129	1,942
1997	8,372	9,358	1,088	1,808
1998	9,049	10,098	1,355	1,946

Note: Slovenian trade data before and after 1992 are not comparable, and neither are Macedonian data before and after 1990, since data before these years in the respective countries include neither the so-called “lon” trade (see text) nor trade with other former Yugoslav republics. For comparison purposes, using the old method, Slovenia’s exports came to \$4.184 billion, and its imports to \$4.135 billion, in 1992; see Štiblar (1997, p. 233).

Sources: International Monetary Fund, *Direction of Trade Statistics*; SORS (1998, p. 376); Statistical Office of the Republic of Macedonia, as reported in MILS, 18 February 1999; Bank of Slovenia (1999, p. 59); Petkovski and Slaveski (1997, pp. 53-54).

# OVERVIEW OF TRADE POLICY IN SLOVENIA AND MACEDONIA

## A Divergent Legacy

Both countries have undergone a process of liberalization and opening up to the world economy. There have been far more milestones to report in the Slovenian case than in the Macedonian one; these include signing an association agreement with the EU in 1996 and joining the Central European Free Trade Area (CEFTA) in 1997. On the other hand, Macedonia has undergone a more radical shift in its trading patterns by force of necessity, as the country has been hit by severe external shocks. The case of one major Macedonian enterprise is instructive in this regard: it lost 20 percent of its market when Slovenia introduced the tolar in October 1991, another 25 percent when Croatia introduced its own dinar in December 1991, and another 15 percent when war broke out in Bosnia-Herzegovina.<sup>7</sup>

A similar process was at work in Slovenia. Indeed, sales to other successor states fell from \$6.7 billion in 1990 to \$1.4 billion in 1996, while exports to never-Yugoslav foreign countries rose only from \$4.2 billion to \$6.9 billion over this period (Majcen, 1998, p. 5). Nonetheless, even in Yugoslav times, Slovenia traded extensively with the European developed countries, and contributed significantly to both Yugoslavia's overall current account surplus and the federal subsidies to the less developed regions. Foreign trade (not counting trade with other former Yugoslav republics) traditionally accounted for only 7 percent of Macedonia's national product, while trade with such republics accounted for 27 percent thereof, the former figure for Slovenia was about one-third (Štiblar, 1997, pp. 231-235; Wyzan, 1995, pp. 200-201).

Another difference between the two countries' economies lies in their degree of openness in recent years. The sum of exports and imports in Slovenia has long been similar to that country's GDP; in 1997, for example, the former was 103.2 percent of the latter, a slight increase over 1992, when the figure was 98.1 percent. In Macedonia, this ratio may have been about the same magnitude in Yugoslav times – we are unable to make such calculations for years before 1993 – but fell from about 90 percent in 1993 to only 54 percent in 1997. The latter figure is exceptionally low for such a small country and is indicative of the severity of the problems that Macedonia has faced in finding markets for its products.

Macedonia ran trade deficits – and, assuredly, current account deficits, although there is no information on that – every year after 1962, a fact of which little notice was taken before independence (Wyzan, 1995, pp. 200-201). Moreover, while disbursements from the so-called Federal Fund amounted to only 4.1 percent of gross social product (GSP) during 1984-88, net subsidies of various types amounted to 35 percent of GSP (Kraft, 1992). In a country with little industrial tradition, rapid industrialization in the heavy industrial and metallurgical sectors, geared for the domestic market and those of other socialist countries, set Macedonia up for an enormous production decline after 1990. While Slovenia's GDP began to grow again in 1993 and is now almost 9 percent higher than it was in 1990, Macedonia's did not begin to rise until 1996 (and then by but 0.8 percent) and remains 35 percent below the 1990 level.

It is worth noting in passing that former Yugoslavia enjoyed a certain preferential status in international trade relative to the member-states of the Council for Mutual Economic Assistance (CMEA). It received special treatment within the General Agreement on Tariffs

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<sup>7</sup> Presentation by Trajko Slaveski at the workshop, "The Time Pattern of Costs and Benefits of EU Accession," held at the International Institute for Applied Systems Analysis, Laxenburg, Austria, 5 December 1998.

and Trade (GATT) for agricultural products and other ones for which it was accorded developing country status. As an independent-minded communist country during the Cold War, it was able to sign a special cooperation agreement with the EU, which allowed it non-reciprocal preferential treatment. Moreover, former Yugoslavia's position as a founding member of the Non-aligned Movement brought certain trade benefits, including ones with respect to the purchase of petroleum. Finally, close trade relations were maintained with the CMEA member-states as well, although, as noted earlier, this applied mostly to the southern former Yugoslav republics (Štiblar, 1997, pp. 245-246).

These points have been made as a way of explaining why Slovenia, despite a certain distance from the EU in the early years of independence due to political factors, started off with a number of advantages in foreign economic relations relative to the formerly planned economies. In principle, the other successor states should also have enjoyed these benefits. However, in the case of Macedonia, a lack of experience in trading with the developed West and the blockage of access to such partners seem largely to have cancelled out any such advantages.<sup>8</sup>

## **Slovenia**

Slovenia was far better prepared to withstand the shocks of the 1990s than Macedonia (and the other successor states). Its foreign economic relations have reflected its favorable position relative to virtually all other transition countries. The country has not had to accept credits from the International Monetary Fund (IMF); and Slovenia has been largely unaffected by the Russian crisis that broke out in August 1998 and seemingly little affected by the flare-up of the Kosovo conflict some three months later.

As noted by Štiblar (1997, p. 229), before the break-up of former Yugoslavia, "Slovenian international trade was restricted by the domestic institutions that governed trade, credit, and the foreign exchange regime...[a] restrictive framework [that] was both a cause and a consequence of the permanent lack of foreign hard currency." Rates of effective protection tended to be high, but that was effected through a complex, non-transparent system, which was biased against agriculture and exporting sectors (Majcen, 1998, pp. 9-13). At the very end of its existence, former Yugoslavia promulgated a series of reforms, including rapid foreign trade liberalization. The complete abolition of non-price forms of protection was not coordinated with other macroeconomic and external policies (e.g., with increases in import tariffs on domestically produced goods), and Slovenia unilaterally passed amendments to tariff rates to protect farmers, exporters, and others (Majcen, 1998, pp. 9-13).

In June 1991, the newly independent nation adopted constitutional laws on foreign exchange bureaus and foreign credit transactions. Full internal convertibility of the currency was established, while administrative determination of the exchange rate was replaced by market determination. Unusually among the more successful Central Europe countries,

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<sup>8</sup> We can distinguish two distinct periods when actions by foreign actors have hindered Macedonian trade with the EU. The first was between February 1994 and September 1995, when Greece blockaded the country, preventing access to port of Thessaloniki, a natural outlet for exports to the EU. The second period dates from March 1999, when the NATO bombardment of former Yugoslavia began. This time around, the problem arises from the impossibility of sending goods through a country whose transport and other infrastructure are under aerial bombardment, and which has turned hostile to Macedonia because of the presence of NATO forces on the latter's territory.

Slovenia opted for a managed floating exchange rate regime; the ostensible reason for this was the virtual absence of foreign exchange reserves.<sup>9</sup>

The constitutional laws, along with a law on foreign trade passed in March 1993, totally liberalized and simplified foreign trade transactions. There are no special registration requirements for exports or imports of goods or services. The Customs Law and the Law on Customs Tariffs, which were enacted in 1995 and went into effect the following year, modernized the customs administration and introduced the combined eight-digit sectoral nomenclature used by the EU. The Law on Protection of Competition and Establishment of the Agency for the Protection of Competition, passed in 1993, served to liberalize the domestic market and normalize participation in it for foreign enterprises; also helpful in this regard were increased protection for intellectual property rights and the according of national treatment to such enterprises.

In practice, further trade liberalization in the independent Slovenia is taking place in three stages. The first was the aforementioned legislation passed in 1995, under which the total unweighted tariff rate declined from 14.6 percent in 1994 to 10.7 percent in 1996. The second stage entails the implementation of the association agreement with the EU over 1997-2001. Under this agreement, the tariff rates on the 41 percent of EU exports to Slovenia not deemed “sensitive” will see their tariff rates cut to 0, with substantial reductions in the rates on those goods that are so deemed (Majcen, 1998, p. 12). The final stage will take place when Slovenia accedes to the EU and adopts the Common External Policy and the Common External Tariff.<sup>10</sup>

Due to its floating exchange rate regime, Slovenia has found it necessary to engage in a wider arsenal of measures to discourage and sterilize financial inflows than other transition countries. These measures include banking regulation and supervision, liberalizing outflows, and sterilized intervention (Bole, 1999). The necessity and effectiveness of such policies have frequently been criticized by, among others, the European Commission. However, they should be seen against the background of Slovenia’s strong exchange rate (and correspondingly high price level), which makes any further real appreciation of the tolar a serious threat to the country’s international competitiveness.

## **Macedonia**

Macedonia shares with Slovenia many features of the former Yugoslav legacy, including the greater liberalism of the trade regime in communist times than in the planned economies and the shocks caused by the ill-considered foreign trade liberalization in 1990. On the other hand, it has not signed an association agreement with the EU (and accession is but a distant dream), so its tariffs are not governed by such a pact. Moreover, as noted above, its legacy in terms of trading partners and the trade balance is very different.<sup>11</sup>

In May 1993, Macedonia passed laws on the foreign exchange market, foreign investment, foreign trade, and foreign credit relations. The first of these laws put an end to a dysfunctional “tripartite” exchange rate mechanism – which included an overvalued official

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<sup>9</sup> At the end of 1991, the gross reserves, excluding gold, amounted to \$112 million (EBRD, *Transition Report 1998*, p. 227).

<sup>10</sup> Presentation by Boris Majcen at the workshop, “The Time Pattern of Costs and Benefits of EU Accession,” held at the International Institute for Applied Systems Analysis, Laxenburg, Austria, 5 December 1998.

<sup>11</sup> For overall looks at Macedonian foreign trade and external economic relations, see Petkovski (n.d.), Petkovski and Slaveski (1997); Sekulovska-Gaber (1996); and Žikov and Kandikjan (1997), as well as the annual reports of the National Bank of the Republic of Macedonia (NBRM).

rate, a black market rate, and an inter-enterprise market rate – in place since November 1991. It established a segmented foreign exchange market, with transactions among enterprises through their banks, between commercial banks and enterprises, among banks, and between the NBRM and banks occurring on a non-cash market.<sup>12</sup> Under this regime, the NBRM, on the basis of the activity on the foreign exchange market during a given day, determines an “average” exchange rate, which becomes a reference point for transactions the following day. Physical persons buy and sell foreign exchange at various types of foreign exchange bureaus on a cash market.

While the foreign exchange regime is sufficiently liberal to ensure *de facto* current account convertibility, it does entail certain restrictions. Enterprises may purchase foreign currency only to meet obligations falling due within 48 hours (with the exception of oil importers, who may accumulate such currency for up to 90 days). Enterprises earning foreign exchange must determine within 96 hours whether to spend it, sell it, or deposit it in a foreign currency account; they must sell to their bank or the NBRM any unused balances in those accounts after 90 days (International Monetary Fund, 1998, pp. 78-80).

The floating exchange rate and money-based macroeconomic stabilization lasted from May 1993 until the final quarter of 1995, when a rate fixed at 26.6 denars to the Deutsche mark was established, with the stabilization efforts thenceforth based around the exchange rate. This change was effected, in the words of the NBRM’s deputy governor, “as a consequence of the unstable money demand function and the strong link between price stability and...exchange rate stability” (Bišev, n.d.). Although Macedonian inflation has been very low in recent years, mounting current account imbalances in the face of this fixed exchange rate forced the authorities to devalue the denar to 31 to the Deutsche mark in July 1997.

Even without the impetus of an association agreement with the EU, Macedonia’s foreign trade regime has become fairly liberal. The old trade regime, inherited from former Yugoslavia, had 18 tariff bands, with rates ranging from 0 to 25 percent, a statistical charge of 1 percent and two import taxes of 7.5 percent. The mean unweighted statutory tariff rate, including the administrative charge and import taxes, was 28 percent. There were import quotas for about 100 goods (including live poultry, wine and spirits, tobacco and cigarettes, and iron and steel), the importation of 30 of which was banned, while some 90 products (including live animals, grains, vegetable oils, wool, and aluminum scrap) were subject to export restrictions or bans. According to the IMF’s new classification scheme, which ranks trade restrictiveness in five categories from “open” to “restrictive,” the old Macedonian regime would be classified as “restrictive” (International Monetary Fund, 1998, pp. 75-78).

In 1995, similarly to Slovenia, a new tariff law was passed under which rates in 90 percent of the categories have been harmonized with those in the EU’s combined nomenclature. Effective in the summer of 1996, the number of tariff bands was reduced from 18 to seven; the statistical charge and import taxes were eliminated; the unweighted average statutory tariff rate became 15 percent; import quotas and bans were eliminated (except in accordance with phyto-sanitary and other safety and quality standards), as were export quotas (except for feed grains and seeds and petroleum products). The new tariff system provides for low levies on raw and semi-processed materials, higher ones for semi-finished products, and still higher rates on finished and consumer goods. Rates on agricultural and certain other machinery were lowered, while those on agricultural products were raised. The IMF now classifies the Macedonian tariff regime as “moderate,” the intermediate of the five categories ((International Monetary Fund, 1998, pp. 75-78; Petkovski and Slaveski, 1997, pp. 60, 67).

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<sup>12</sup> For a detailed description of the functioning of the non-cash market, see International Monetary Fund (1998, pp. 78-80).

Although Macedonia does not yet have associate status with the EU, it did sign a cooperation agreement with the body in April 1997 (effective at the beginning of 1998). The agreement with the EU contains a financial protocol, which provides for ECU 70 million in financial aid to finance infrastructural projects, along with ECU 140 million to finance two major highways to Greece, financed under favorable conditions by the European Investment Bank. It also eases trade restrictions in a number of sectors, such as textiles.<sup>13</sup> Nonetheless, Macedonia has experienced considerable difficulties with access to the EU market for some of its most important exports, including lambs (due to sanitary issues), steel (subject to recent anti-dumping actions by both the EU and the U.S.), and polyester fibers (also subject to such an action by the EU).

Free trade agreements have been signed with Slovenia (February 1996), Bosnia and Herzegovina (January 1997), and Croatia (March 1997). Such agreements are also in the works with Turkey (currently expected to go into effect in September 1999) and Bulgaria (the signing of which is anticipated before the end of 1999). Macedonia also signed in October 1996 a tariff-elimination pact with Federal Yugoslavia, although it has been rendered largely meaningless by unilateral protective measures periodically undertaken by Belgrade; a free-trade agreement between the two countries is supposed to go into effect some time in 1999. Problems have also been experienced, especially concerning Macedonian wine, with the implementation of the free trade agreement with Slovenia.

Macedonia has since 1996 run up current account deficits in the range of \$250-300 million, or 7.5-8 percent of GDP. Trade deficits have been even larger, as "current transfers, other" (i.e., private remittances) have been substantial. On the strength of sizeable positive net trade credits, the capital account has displayed balances that are positive but smaller in absolute value than the current account deficits, leaving a gap to be financed, if a draw-down of the foreign reserves is to be avoided.<sup>14</sup> A cautious policy toward debt accumulation has left the country with a moderate foreign indebtedness of \$1.3 billion (35-40 percent of GDP) in September 1998.

IMF and World Bank lending to the country began with a deal in February 1994 to settle \$107 million in arrears to the latter. The IMF agreed in 1994 to provide a structural transformation facility, a year later to grant a standby facility, and most recently, in November 1996, to provide a three-year extended structural adjustment facility, under which two tranches have been released; Macedonia's outstanding use of IMF credit, as of June 1998, was \$87 million.<sup>15</sup>

The international community has of this writing (mid-May 1999) taken a number of actions to help Macedonia cope with the economic consequences of the enormous refugee inflows and broken trade links resulting from outbreak of large-scale hostilities in Kosovo in late March 1999. In late April, the Paris Club agreed to a one-year moratorium on payments on \$170 million in debt owed it by Macedonia; the government views this decision as disappointing, since it had hoped (and the World Bank had recommended) that the debt would be written off completely. In early May, a donors' conference in Paris agreed to provide \$252 million (\$102 million in grant form; \$127 million from the IMF and World Bank combined) in balance of payments support; again disappointed, the government had hoped to receive \$432 million. Finally, the European Commission decided at roughly the same time not to

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<sup>13</sup> Slaveski presentation (see footnote 6).

<sup>14</sup> In 1998, for example, there was a \$289 million current account deficit, a \$400 million trade deficit, \$272 million in "current transfers, other," a \$310 million capital account surplus, \$85 million in net trade credits, and \$200 million in new loans; see National Bank of the Republic of Macedonia (1999, p. 80); in earlier years, debt rescheduling had been important.

<sup>15</sup> See <http://www.imf.org/external/np/sec/pr/1998/PR9823.HTM>. For a survey of the credits that Macedonia has received from the IMF, World Bank, EBRD, and EU, see Bišev (n.d.).



pursue the anti-dumping suit against Macedonian steel while the war continues; the U.S. had earlier decided not to pursue a similar case.

## A DETAILED LOOK AT SLOVENIAN AND MACEDONIAN TRADE

### Motivation and Limitations

In this section, we present and discuss a number of indicators of the nature of the trade activity between Slovenia and the EU and between Macedonia and the EU. Many of these indicators have already been calculated for most countries in Central and Eastern Europe (CEE), including in certain instances Slovenia (see, e.g., Aturupane, Djankov, and Hoekman, 1997; Dobrinsky, 1995; Eichengreen and Kohl, 1998; Landesmann, 1995; and Neven, 1995, as well as the papers contained in *European Economy*, no. 6, 1994), but this has apparently never been done for Macedonia or other former Yugoslav republics.

Our goal is partly the usual one of examining progress on transition to a market economy in the two countries in question, trade patterns being one of the most important indicators of such in these mostly small, open economies. Important issues in this context include a country's success in shifting trade to the West, the extent of IIT and outward processing trade, the factor content of its trade, and so on. Examining these matters for Macedonia helps to put that country's progress in transition into perspective; few empirical results are available on this subject (a limited exception is Sekulovska-Gaber, 1996). It is important for Macedonian policy-makers to obtain a grasp of the detailed characteristics of the country's external economic activity.

Moreover, tracing changes in the direction and structure of trade for the two countries provides insight into the extent to which they can be classified as more or less developed nations. Relatedly, it is of interest to ascertain whether a nation classified as less developed seems to be becoming less so over time, and if so, how rapidly. Insight into a country's developmental level is particularly useful for external policy-makers who must, for example, determine a country's eligibility for various preferential trade regimes. A country's level of development is also important in determining its ultimate suitability for EU accession. Since accession requires – subject, of course, to possible delays and derogations – the adoption of the entire *acquis communautaire*, the less developed a country is, the costlier it will find it to do so. It can be argued that below some level of development, accession is so costly as to be an inappropriate strategy, and a free trade area would be more welfare-enhancing.<sup>16</sup>

Finally, examining the changing trade patterns of nations that emerged from the break-up of a larger, socialist-oriented federation yields insights into a number of issues. These include the nature of their status within that federation, the extent to which belonging thereto distorted their trade patterns, and the speed with which those patterns are adjusting after independence.

In the context of the last two matters, we compare the results for Slovenia and Macedonia with those from a similar study conducted by the author for the Czech Republic

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<sup>16</sup> In the run-up to the North American Free Trade Agreement, the extent to which Mexico should be forced to comply with U.S. and Canadian environmental, labor, and other law was a major issue. The form of integration inherent in the EU seems unimaginable between two countries at such divergent development levels. Note also that this issue might not be a problem if the cost of adopting the *acquis* were closely positively related to the level of development, so that, e.g., Macedonia would have less in the way of environmental clean-up or upgrading costs than Slovenia. This would not appear to be the case, however.

and Slovakia (Wyzan, 1998). Although the Czech Republic is somewhat less oriented toward trade with the former socialist countries and more economically developed than Slovakia, the differences appear to be much smaller than in the Slovenian/Macedonian case. Moreover, both Czechoslovak successor states are candidates for EU accession (although only the Czech Republic is among the five states currently negotiating over such) and enjoy good access to Western markets.<sup>17</sup>

After presenting some general statistics that apply to all Slovenian and Macedonian foreign trade, we will be concentrating on those countries' trade with the EU, as compiled by Eurostat and classified according to NACE-CLIO (hereafter referred to simply as NACE). This has the obvious advantage that the data are reliable, comparable, and up-to-date; the conundrums associated with border trade, inexperienced and perhaps corrupt customs administrations, barter, and so on are absent. Employing such "partner data" also means that we are able to say something about the factor intensity of trade, since NACE sectors have been ranked according to such intensity, with a number of studies (e.g., Neven, 1995) further refining those rankings.

However, it should be pointed out that there are certain limitations to this approach, the most obvious being that trade with the EU does not represent all of either country's commerce. As can be seen from Table 2, this is a larger problem when dealing with Macedonia, for which EU trade accounts for only around 40-45 percent of the total. Moreover, we follow the usual procedure in classifying sectors by factor intensity based on the productive technology employed in a subset of the larger EU countries; the Yugoslav successor states may well employ different technologies.<sup>18</sup>

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<sup>17</sup> Another obvious difference between the Czechoslovak and former Yugoslav successor states is that the former completely encompass the territory of the state from which they emerged. Trade between them makes up a significant share of their total trade, especially for Slovakia, where, as late as 1997, the Czech Republic accounted for 31 percent of exports and 25 percent of imports. This high degree of trade interdependence led to the creation at independence in January 1993 of a short-lived currency union, followed by a clearing arrangement, which lasted until October 1995. No such arrangements have ever existed in the case of the countries under examination here, if only because they are rather minor trading partners for each other (see below)

<sup>18</sup> In a path-breaking study, Majcen (1998, pp. 50-74) classifies Slovene industrial sector on the basis of the factor intensity of the production processes that they use (rather than that characterizing those sectors in the EU) and correlates the classification of sectors with the growth of their outputs. This is a promising research approach for Macedonia and other transition countries.

**Table 2.** Direction of Trade, Former Yugoslavia, Slovenia, and Macedonia

Top 15 Trading Partners, Ranking and % of Total Exports and Imports					
1990					
Trade Outside Former Yugoslavia					
Former Yugoslavia		Slovenia		Macedonia	
Exports	Imports	Exports	Imports	Exports	Imports
1. USSR (19)	Germany (19)	W. Germany <sup>a</sup> (22)	W. Germany <sup>a</sup> (23)	USSR (29)	USSR (29)
2. Italy (18)	Italy (13)	Italy (19)	Italy (16)	Germany (21)	Germany (16)
3. Germany (15)	USSR (13)	USSR (13)	France (12)	Italy (10)	Greece (6)
4. France (7)	France (6)	France (10)	Austria (9)	Czechoslovakia (5)	Italy (5)
5. U.S. (5)	Austria (6)	Austria (5)	USSR (6)	Greece (5)	U.K. (5)
6. Austria (4)	U.S. (4)	U.S. (5)	U.S. (4)	Bulgaria (4)	Bulgaria (4)
7. Czechoslovakia (3)	Czechoslovakia (3)	U.K. (3)	Japan (3)	U.S. (3)	U.S. (3)
8. U.K. (2)	Hungary (3)	Czechoslovakia (2)	Switzerland (2)	Netherlands (3)	Czechoslovakia (3)
9. Greece (2)	U.K. (2)	E. Germany <sup>a</sup> (2)	Czechoslovakia (2)	Switzerland (2)	Austria (3)
10. Poland (2)	Japan (2)	Hungary (2)	U.K. (2)	Austria (2)	Turkey (3)
11. Netherlands.(1)	Switzerland (2)	Poland (1)	Netherlands (2)	Belgium (2)	Netherlands (2)
12. Hungary (1)	Poland (2)	Netherlands (1)	Hungary (2)	Turkey (1)	Iraq (2)
13. Egypt (1)	Nether. (1)	Switzerland (1)	Sweden (1)	U.K. (1)	Hungary (2)
14. Turkey (1)	Iraq (1)	Sweden (1)	Belgium (1)	Iran (1)	Poland (2)
15. Switzerland (1)	South Korea (1)	Belgium (1)	Poland (1)	Japan (1)	Switzerland (2)
EU=52% <sup>b</sup>	EU=53% <sup>b</sup>	EU=66% <sup>b</sup>	EU=70% <sup>b</sup>	EU=45% <sup>b</sup>	EU=40% <sup>b</sup>

**Table 2.** Direction of Trade, Former Yugoslavia, Slovenia, and Macedonia (continued)

All Foreign Trade							
Slovenia				Macedonia			
1993	1998	1993	1998	1993	January-September 1998 <sup>c</sup>	1998 <sup>c</sup>	1998 <sup>c</sup>
Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
1. Germany (29)	Germany (24)	Germany (28)	Germany (21)	Germany (14)	Slovenia (15)	Germany (21)	Germany (16)
2. Italy (12)	Italy (15)	Italy (14)	Italy (17)	Russia (11)	Germany (13)	U.S. (14)	Fed. Yugo. (11)
3. Croatia (12)	Croatia (9)	Croatia (9)	France (13)	Italy (9)	Russia (12)	Ukraine (12)	Italy (9)
4. France (9)	Austria (8)	France (8)	Austria (8)	Slovenia (8)	Bulgaria (11)	Italy (11)	Slovenia (9)
5. Austria (5)	France (8)	Austria (7)	Croatia (4)	Bulgaria (8)	Italy (4)	Fed. Yugo. (5)	Ukraine (6)
6. Russia (4)	Russia (3)	Bos.-Her. (4)	U.S. (3)	U.S. (6)	Greece (4)	Croatia (4)	Bulgaria (6)
7. U.S. (4)	U.S. (3)	U.S. (3)	Czech Rep. (3)	Greece (5)	Croatia (4)	Belgium (4)	Turkey (6)
8. Macedonia (3)	Hungary (2)	Russia (3)	Hungary (2)	Turkey (4)	Turkey (3)	Netherlands (4)	Croatia (5)
9. U.K. (3)	Switzerland (2)	Poland (2)	U.K. (2)	Croatia (4)	Belg.-Lux. (2)	Slovenia (3)	Austria (4)
10. Nether. (1)	Japan (2)	U.K. (2)	Spain (2)	Albania (3)	Austria (2)	Russia (3)	Switzerland (4)
11. Hungary (1)	Nether. (2)	Macedonia (2)	Netherlands (2)	Switzerland (3)	Switzerland (2)	Bulgaria (2)	Netherlands (3)
12. Poland (1)	Czech Rep. (2)	Belgium (2)	Russia (2)	Czechosl. <sup>d</sup> (2)	Libya (2)	Turkey (2)	France (3)
13. Iran (1)	U.K. (2)	Czech Rep. (2)	Japan (2)	Austria (2)	France (2)	France (2)	U.K. (2)
14. Belg.-Lux. (1)	Macedonia (1)	Netherlands (2)	Switzerland (2)	Netherlands (1)	Czechosl. <sup>d</sup> (1)	U.K. (2)	Sweden (2)
15. Switzerland (1)	Iran (1)	Hungary (2)	Belgium (2)	S. Korea (1)	Romania (1)	Egypt (1)	Greece (1)
EU=62% <sup>b</sup>	EU=62% <sup>b</sup>	EU=69% <sup>b</sup>	EU=69% <sup>b</sup>	EU=35% <sup>b</sup>	EU=34% <sup>b</sup>	EU=44% <sup>b</sup>	EU=43% <sup>b</sup>

<sup>a</sup>Slovenian statistics continued to distinguish West from East Germany in 1990.

<sup>b</sup>These items cover current 15-member EU, including all of the united Germany.

<sup>c</sup>Preliminary data on Macedonian trade for all of 1998 have Germany as the leader with (21 percent of exports and 13 percent of imports), followed by Federal Yugoslavia and the U.S. in terms of the total volume of trade; the EU accounted for 43 percent of exports and 36 percent of imports.

<sup>d</sup>International Monetary Fund statistics for Macedonia in 1993 do not distinguish Czech Republic from Slovakia, even though they separated at the beginning of 1993.

*Sources:* International Monetary Fund, *Direction of Trade Statistics*; Bank of Slovenia (1999, p. 59); Statistical Office of the Republic of Macedonia (1993, pp. 465-466); Statistical Office of the Republic of Slovenia (1991, pp. 340-341); telephone conversation, Statistical Office of the Republic of Slovenia, 19 March 1999.

Finally, note that concentrating on trade with the EU does not eliminate all of the ambiguities inherent in the commercial relations of such countries as Macedonia. Especially in the first years of independence, it is known that goods intended for the EU were often shipped via Slovenia and recorded as exports to that country in Macedonian statistics, while they were perhaps reported in EU statistics as imports from Slovenia. This phenomenon is probably at least partly responsible for the great relative (as shown in Table 2) and absolute fall-off in bilateral trade as a share of total Macedonian trade during 1993-1998.

## Evidence on Trade Patterns from Overall Data

Before turning to various indicators characterizing trade with the EU, we first briefly examine several aspects of the countries' overall trade based on their own data. As can be seen from Table 1, while Slovenia's foreign trade has increased steadily in the 1990s (with large jumps in 1993-1995 and 1998), Macedonia's exports have risen little since independence, while its imports increased greatly over 1993-1995 but have stagnated since then.

We can relate the time pattern of Macedonian trade to two phenomena: movements in the real effective exchange rate of the denar, and the establishment and lifting of various international sanctions and blockades. According to the International Monetary Fund (1998, pp. 66-68), the real effective exchange rate, whether measured in terms of the consumer price index or unit labor costs, peaked in June 1995, once convergence was reached with the relevant inflation rates in trading partners. Developments in dollar wages suggest that there was an erosion of international competitiveness from early 1994 through mid-1995, after which the real exchange rate depreciated, especially after the devaluation of July 1997.<sup>19</sup> The lifting of the sanctions against Federal Yugoslavia in November 1995 is associated with a widening of the trade deficit, as imports from that country increased far more than exports to it.<sup>20</sup>

Table 2, which contains information on the direction of trade, shows first of all Slovenia's far greater "European" orientation, with the EU (as currently composed) accounting for 69 percent of both 1998 exports and imports there, compared with 44 percent for Macedonian exports and 43 percent for Macedonian imports.

Second, we can take advantage of the fact that, uniquely for the former Yugoslav republics, we have detailed data on those countries' directions of trade from before they were independent. Observe from Table 2 that, in both countries, the importance of the EU seemingly fell between 1990 (the final "Yugoslav" year) and 1993, in Slovenia by 8 percentage points for exports and by 4 points for imports, and in Macedonia by 10 points for exports and 6 points for imports.

In the Slovenian case, this seeming decline is largely an illusion, the result of treating trade with other former republics as "foreign" in the second year, but not in the first.<sup>21</sup>

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<sup>19</sup> The monthly dollar wage rose steadily from \$89 in January 1993 to \$234 in May 1995, after which a decline set in, which accelerated with the devaluation of July 1997. The dollar wage bottomed out at \$158 in August 1997, and had risen to \$187 by December 1998, its approximate level in the summer of 1994.

<sup>20</sup> The increase in imports in 1996 is larger than it appears from Table 1, since the "the level of imports in 1995 is probably overstated due to the re-export activity under the UN sanctions" (International Monetary Fund, 1998, p. 73). Exports fell in 1996, at least partly as a result of Federal Yugoslavia's being able to substitute newly legalized trade with other partners for sanctions-evading commerce with Macedonia.

<sup>21</sup> It is impossible to be precise about this matter, since, as can be seen from the note to Table 1, the treatment of trade with other former Yugoslav republics is not the only difference between the data on Slovenia's trade for

Correspondingly, the seeming subsequent “recovery” of EU shares to where they were in 1990 in fact represents large increases over that year. This puts the weight of the EU at the highest among transition countries, and it may be that there are no further increases, especially if trade with other former republics recovers.

For Macedonia, the decline in foreign trade after independence was so large – especially the fall in trade with other former republics – that the decline and subsequent recovery in EU trade shares is indeed reflected in dollar trade volumes. Thus, Macedonian exports to the EU were \$500 million in 1990, fell to \$369 million in 1993, and then rose to about \$552 million in 1998.<sup>22</sup> Thus, while such exports are now running ahead of their levels at the end of the Yugoslav era, as in Slovenia, in the Macedonian case the increase over the intervening period has been modest.

In terms of country partners, remarkably little has changed in Slovenia between 1990 and the present. The only significant change, not unexpectedly, is the further decline in the importance of trade with former socialist countries (not counting other former Yugoslav republics) from about 20.5 percent of exports in 1990 to about 10.1 percent in 1998. Within that group of countries, trade with fellow CEFTA member-states is growing, while that with the former USSR, which made up 13 percent of exports and 6 percent of imports in 1990, has all but disappeared. The only exception is Russia, which still accounts for 3 percent of exports and 2 percent of imports.

The list of Macedonia’s trading partners show greater fluctuations over time, with, for example, Greece holding its own through 1993, before falling off greatly during the embargo and never recovering. Among fellow successor states, the importance of Slovenia has fallen greatly, although it remains high (9 percent) on the import side, while Croatia has held its own at around 4 percent for both imports and exports. Federal Yugoslavia re-emerged as a major trading partner in 1996, with increases on both the import and export sides that seem to have come at Bulgaria’s expense (International Monetary Fund, 1998, p. 71).

We turn next to the structure of total Slovenian and Macedonian trade. For Slovenia in 1997, the ten most important export sectors (based on the SITC, Revision 3) were road vehicles (11.9 percent of the total); electrical machinery, apparatus, and appliances (10.0 percent); articles of clothing; furniture and parts thereof; medical and pharmaceutical products; manufactures of metal; general industrial machinery; paper, paperboard, and articles thereof; textile yarn, fabrics, and related products; and non-ferrous metals (3.6 percent) (Statistical Office of the Republic of Slovenia, 1998, pp. 383-384). For Macedonia that year, the equivalent list includes clothing (21.1 percent of the total); iron and steel (15.1 percent); tobacco and tobacco manufactures; beverages; textile yarn, fabrics, and related products; footwear; electrical machinery, apparatus, and appliances; fruits and vegetables; non-metallic mineral manufactures; and textile fibers and their wastes (1.8 percent) (Statistical Yearbook of the Republic of Macedonia, 1998, pp. 544-547).

There has been more change since 1990 in the list of top export sectors in Slovenia than in Macedonia: while the sectors in the ranking have changed somewhat in both countries, in Macedonia those changes affect sectors with rather minor shares of total trade. In Slovenia, iron and steel; organic chemical products; plastics in primary forms; and office machines have dropped out of the top ten, while articles of clothing; furniture and parts thereof; medical and pharmaceutical products; paper, paperboard, and articles thereof; and non-ferrous metals have

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1990 and 1998. It is clear, however, that in the course of the 1990s the dollar volume of Slovenia’s trade with the EU has increased greatly, with exports rising, for example, from about \$4 billion in 1993 to almost \$7 billion in 1998.

<sup>22</sup> The figure for 1998 assumes that total exports and those to the EU in the fourth quarter were equal to one-third of the respective figures for the first three quarters.

joined it (Statistical Office of the Republic of Slovenia, 1991, pp. 343-345). In Macedonia, non-ferrous metals; medical and pharmaceutical products; road vehicles; and explosives and pyrotechnical products have fallen from the top ten, while beverages; fruits and vegetables; non-metallic mineral manufactures; and textile fibers and their wastes have joined it (Statistical Office of the Republic of Macedonia, 1993, pp. 468-471).

As can be seen in Table 3, the bulk of both countries' trade is in SITC sectors 6-8. Two noteworthy facts emerge from the table. First, Macedonian exports are more concentrated in the labor-intensive sixth and eighth sectors (see Eichengreen and Kohl, 1998, Table 4), which accounted for 58.3 percent of exports in 1997, compared to 48.1 percent in Slovenia. Some 33.6 percent of Slovenia's exports that year consisted of machinery and equipment (sector 7), compared to just 7.7 percent in Macedonia.

Second, and more interestingly, the share of the labor-intensive sectors was higher in Slovenia in 1997 than in 1990 (when it was 44.4 percent) and the share of machinery and equipment was lower than during that year (when it was 38.1 percent). For Macedonia, the trends were in the other direction with respect to the labor-intensive sectors, which were responsible for 74.4 percent of exports in 1990. However, this decrease has not coincided with an increase in the negligible share of machinery and equipment, but rather with rises in the importance of food and live animals, crude materials, and especially beverages and tobacco (sectors 0 through 2).<sup>23</sup>

It may be that producers of relatively sophisticated equipment in Slovenia's more advanced, EU-integrated economy are undergoing rapid restructuring, while those of labor-intensive products are expanding relatively (for an in-depth look at these issues, see Majcen, 1998, pp. 50-74). Macedonia's less reformed, less Europe-oriented economy appears to be going backwards toward more primitive products, in terms of the structure of its overall trade. We now turn to a detailed examination of the two countries' trade with the EU to see *inter alia* whether this holds for that portion of their trade.

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<sup>23</sup> Another way to look at the same issue is to compare the breakdowns of exports into unprocessed products, processed products, and highly processed products provided by the two countries' statistical administrations. For Slovenia in 1997, the percentages were 1.9 percent, 14.1 percent, and 84.0 percent, respectively, while for Macedonia that year they were 12.0 percent, 27.3 percent, and 60.1 percent, respectively (Statistical Office of the Republic of Macedonia, 1998, p. 539; Statistical Office of the Republic of Slovenia, 1998, p. 388).

**Table 3.** Structure of Total Slovenian and Macedonian Trade

SITC (rev. 3)	0-9 Total	0 Food & Live Animals	1 Bever. & Tobacco	2 Crude Materials	3 Minerals & Fuels	4 Oils & Fats	5 Chemicals	6 Manufact. by Material	7 Machine. & Equipment	8 Miscellan. Manufact.	9 Others	
1990 <sup>a</sup>												
Slovenia <sup>b</sup>												
Exports	mil. \$	4,118	189	29	124	4	4	367	1,153	1,569	675	8
	%	100.0	4.6	0.7	3.0	0.1	0.1	8.9	28.0	38.1	16.4	0.2
Imports	mil. \$	4,727	283	19	444	340	14	685	860	1,669	407	14
	%	100.0	6.0	0.4	9.4	7.2	0.3	14.5	18.2	35.3	8.6	0.3
Balance	mil. \$	-609	-94	10	-320	-336	-10	-318	293	-100	268	-6
Macedonia												
Exports	mil. \$	1,113	13	35	53	0.4	0.05	62	526	102	302	2
	%	100.0	1.2	3.1	4.7	0.0	0.0	5.6	47.3	9.1	27.1	0.2
Imports	mil. \$	1,274	124	44	91	145	4	123	263	163	100	217
	%	100.0	9.8	3.4	7.1	11.4	0.3	9.6	20.6	12.8	7.9	17.1
Balance	mil. \$	-161	-111	-9	-38	-145	-4	-61	263	-61	202	-215



**Table 3.** Structure of Total Slovenian and Macedonian Trade (continued)

		1997 <sup>c</sup>										
SITC (rev. 3)		0-9 Total	0 Food & Live Animals	1 Bever. & Tobacco	2 Crude Materials	3 Minerals & Fuels	4 Oils & Fats	5 Chemicals	6 Manufact. by Material	7 Machine. & Equipment	8 Miscellan. Manufact.	9 Others
Slovenia												
Exports	mil. \$	8,369	241	71	166	101	17	941	2,265	2,813	1,754	0.9
	%	100.0	2.9	0.9	2.0	1.2	0.2	11.2	27.1	33.6	21.0	0.0
Imports	mil. \$	9,367	596	58	488	782	42	1,133	1,921	3,096	1,242	7
	%	100.0	6.4	0.6	5.2	8.4	0.5	12.1	20.5	33.1	13.3	0.0
Balance	mil. \$	-998	-355	13	-322	-681	-25	-192	344	-283	512	-6
Macedonia												
Exports	mil. \$	1,180	87	162	68	5	0.3	70	350	89	319	1
	%	100.0	5.6	13.8	5.8	0.4	0.0	6.0	30.5	7.7	27.8	0.1
Imports	mil. \$	1,755	239	17	68	195	15	189	338	298	212	182
	%	100.0	6.1	1.0	3.9	11.1	0.9	10.8	19.3	17.0	12.1	10.3
Balance	mil. \$	-575	-152	145	0	-15	-15	-119	12	-209	107	-181

<sup>a</sup>Does not include trade with other former Yugoslav republics.

<sup>b</sup>Figures were derived by applying the sectoral breakdown in (former Yugoslav) dinars for exports and imports for 1990 found in the 1991 Slovenian statistical yearbook to the respective total export and import figures in USD for that year contained in the 1998 yearbook.

<sup>c</sup>Includes trade with other former Yugoslav republics.

*Sources:* Statistical Office of the Republic of Macedonia (1998, pp. 544-547); Statistical Office of the Republic of Slovenia (1991, pp. 343-344; 1998, pp. 376, 385-386); Štiblar (1997, p. 233).

## Trade with the EU: Concentration and Similarity

The traditional approach to the study of international trade, centered around the classic Heckscher-Ohlin theorem, hypothesized that the composition of a country's trade depends on its relative endowments of productive factors. Countries would tend to export those goods that embody relatively large amounts of their abundant (and inexpensive) factors and import goods that embody comparatively large quantities of their scarce factors.

It has always been difficult to find empirical evidence in support of the Heckscher-Ohlin view of the world, especially for highly developed countries. For such nations, it is now recognized that much of trade in manufactures takes place within sectors (intra-industry trade or IIT), and is driven by phenomena other than factor endowments. Such phenomena include, among other things, product- or firm-specific cost or design advantages. The trade of less developed countries is said to come closer to following the patterns predicted by Heckscher-Ohlin. A high concentration of exports – presumably in sectors in which the country has a comparative advantage – can be taken as an indication that factor endowments are a major determinant of trade patterns.

Gini-Hirschman coefficients are employed to measure the extent to which exports and imports are sectorally concentrated; the coefficient can take values between zero and unity, with higher ones indicating greater concentration. The coefficient is defined as follows

$$GHC_y = \left[ \sum_{j=1}^n (y_j/Y)^2 \right]^{1/2} \quad (1)$$

where there are  $n$  sectors,  $y_j$  is either the exports or imports of the  $j$ th sector, and  $Y$  is total exports or imports.

Using the NACE nomenclature at the three-digit level for sectors 211 through 495 (i.e., the manufacturing sectors), we have calculated such coefficients for Slovenia and Macedonia for their trade with the EU in every year from 1992 (or 1993 for Macedonia) through January-September 1998. The results are found in the first panel of Table 4.

Our results indeed show that Macedonian trade is more concentrated on both the export and import sides than Slovenian trade. Both countries have more concentrated exports than the Czech Republic (perhaps due to their smaller size), while Slovenia's trade concentration is similar to Slovakia's. Macedonia's concentration is high by any standard and has risen substantially during the 1990s. Slovenia (along with the two Czechoslovak successor states) falls between Germany and Greece in export concentration. On the import side, the tendency for seemingly less developed countries to exhibit greater concentration is present but much weaker.

**Table 4.** Indicators of Trade Concentration, Intra-Industry Trade, and Similarity, EU Trade

	1992	1993	1994	1995	1996	1997	Jan.-Sept. 1998
A. Gini-Hirschman Coefficients Concentration of Trade							
<u>Exports</u>							
Slovenia	0.219	0.207	0.207	0.198	0.207	0.205	0.218
Macedonia	n.a.	0.300	0.325	0.326	0.361	0.358	0.368
<u>Imports</u>							
Slovenia	0.192	0.207	0.200	0.172	0.174	0.171	0.173
Macedonia	n.a.	0.170	0.221	0.211	0.168	0.166	0.180
<u>Memorandum items:</u>							
Germany, 1991-92: X=0.186; M= 0.168; Greece, 1991-92: X=0.262; M=0.172							
Czech Republic, 1997, X=0.174; M=0.178; Slovakia, 1997, X=0.206; M=0.190							
B. Similarity Indices Between Slovenia and Macedonia							
Exports	n.a.	0.634	0.432	0.377	0.405	0.394	0.323
Imports	n.a.	0.623	0.604	0.673	0.732	0.674	0.622
<u>Memorandum items:</u>							
Czech Republic/Bulgaria, exports, 1996, index=0.335							
Czech Republic/Slovakia, exports, 1996, index=0.831							
Germany/Greece, exports, 1991-92, index=0.233							
C. Grubel-Lloyd Indices Intra-Industry Trade							
Slovenia	0.580	0.576	0.635	0.662	0.672	0.677	0.696
Macedonia	n.a.	0.306	0.357	0.356	0.250	0.248	0.237
<u>Memorandum items:</u>							
Germany, 1991-92, index=0.757; Greece, 1991-92, index=0.322							
Czech Republic, 1997, index=0.643; Slovakia, index=0.567							

*Sources:* Eurostat COMEXT; memorandum items from Dobrinsky (1995, pp. 91, 95); Eichengreen and Kohl (1998, Table 2); and Wyzan (1998, p. 5).

Another interesting issue concerns the extent to which the Slovenian and Macedonian export and import structures are similar to each other and how that has changed over time since independence. Several countervailing factors may be at work here. For one thing, as the two countries find their comparative advantages in world trade, their export structures might be expected to diverge. On the other hand, since Macedonia's production and "exports" was so heavily oriented to the Serbian market in Yugoslav days, they were perhaps more distorted than Slovenia's. In that case, Macedonian export patterns might be expected to become more "normal" for a state with 2 million inhabitants, and the import structures of the two countries might converge over time.

We have calculated similarity indices for the 3-digit NACE sectoral breakdown between the structures of Slovenian and Macedonian exports to the EU. We follow Dobrinsky (1995, p. 113) in employing an integrated similarity index whose distribution does not depend on the level of disaggregation, as follows

$$ISI_y = \frac{\sum_{j=1}^n (s_{yij} - s_{yjk})^2}{\sum_{j=1}^n s_{yij}^2 + \sum_{j=1}^n s_{yjk}^2} \quad (2)$$

where (again for  $y$  equal to either exports or imports)  $s_{yij}$  is the share in total export or imports of sector  $j$  in country  $i$ , and  $s_{yjk}$  is similarly defined for country  $k$ .

The results (see Table 4) reveal that, leaving aside 1993, which appears to have been an anomaly, the Slovenian and Macedonian export structures are not very similar, and are becoming less so over time. By 1997, they were slightly more disparate than the Czech and Bulgarian ones in 1996, which were the most divergent structures in CEE, as found by Eichengreen and Kohl (1998, Table 2). They remain, however, less disparate than the German and Greek structures in 1991-1992. There is no obvious trend in the (much greater) similarity between the Slovenian and Macedonia import structures.

## Trade with the EU: Specialization and Factor Intensity

Another interesting issue concerns the sectors in which the two countries specialize and the factor content of those sectors. It is easy to enumerate sectors according to their shares of total exports or their revealed comparative advantage (RCA)<sup>24</sup>, but less so to classify them by factor content. Research has been conducted for the larger EU member states on the factor intensity of 3-digit NACE sectors for five factors: capital, labor, research and development, skills, and energy. Each of the intensities is proxied through the value taken by a given variable. For example, capital intensity is estimated by cumulative investment relative to the

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<sup>24</sup> For a discussion of various definitions of RCA and an application to the case of the CEE countries, see Dobrinsky (1995, pp. 96-103). Here we employ the simplest definition of the concept, the ratio of sectoral exports and imports. See also Aiginger, Peneder, and Stankovsky (1994) for an attempt to relate trade structures (and changes therein) as measured by RCAs to factor intensities in such countries before and after the start of the transition process.

number of employees, while labor intensity is proxied by the number of employees relative to the value of output.

Using these proxies, Neven (1995, pp. 53-57) has used cluster analysis to allocate the sectors into five groupings, which can be seen at the bottom of Table 5. As noted above, a limitation of this approach is that these intensity numbers apply to the production processes employed in the EU, which may differ from those used for the same products in Macedonia and Slovenia.

Armed with this information on sectors, we can proceed to see which are the most important ones in Slovenian and Macedonian exports to the EU. There are two criteria for doing so. First, we can rank sectors in terms of their RCAs, which we do in panel A of Table 5, where we define this indicator as the ratio of sectoral exports to imports. Approaching the problem in this manner has the drawback that it tends to pick up sectors that are of very minor significance to total exports (e.g., cider, parry, and mead in Macedonia or wine in Slovenia). Accordingly, in panel B we present the top sectors in terms of their shares of total exports. There is more overlap in the Macedonian list than in the Slovenian one, a topic to which we will return in the next subsection.

This approach is most relevant for the NACE industrial sectors (211-495) which we have been examining in the preceding sub-sections. However, especially in the case of Macedonia, it is useful to apply it to the other sectors as well. Table 5 presents the top 15 industrial sectors, with the non-industrial ones that appear among them listed in parentheses.

There are more high-wage sectors among the sectors in Slovenia (three in Panel A and five in Panel B) than in Macedonia (one in Panel A and two in Panel B). In the ranking on the share of total exports, Slovenia has four high wage/low investment sector and one high wage/high investment one, while Macedonia has one of each. The total number of high wage sectors in Slovenia is similar to that found for the Czech Republic (in 1997) in Wyzan (1998, pp. 6-7), although the latter has more high wage/high investment sectors. Slovakia is intermediate in terms of this analysis between Slovenia and the Czech Republic, on the one hand, and Macedonia, on the other.

Note that certain sectors appear in the rankings for both countries. These include ready made clothes and clothing accessories (453), non-ferrous metals (224), and products of the hosiery trade (436), the last of these appearing (for both countries) only in the one based on shares of total exports. This suggests that, despite the republics' very different patterns of specialization in former Yugoslav days, patterns consistent with the large gap in the level of economic development between them, certain sectors were important throughout the country. This partly reflects that certain raw materials, such as non-ferrous ores, are found in many former republics. More interestingly, perhaps, export-oriented textile and apparel industries existed in several republics, despite differences in relative factor abundance among regions that seem to make it unlikely that the more advanced among them would specialize in those industries.

**Table 5. Top Sectors in Trade with EU According to NACE, 1997**

A. Ranked By Degree of Revealed Comparative Advantage (X/M)		
	Share of Total Exports	Factor Intensity Group
<u>Slovenia</u>		
463	Carpentry, wooden buildings, joinery, parquet flooring	0.026 3
(020)	Forestry products	0.003 )
453	Ready-made clothes and clothing accessories	0.074 3
362	Locomotives, other railway and tramway rolling stock, etc.	0.002 3
(97C)	Market recreational and cultural services	0.0002 )
346	Electric household appliances	0.054 2
465	Wooden articles (other than furniture), sawdust and shavings	0.006 4
455	Household linen, bedding, curtains, wall coverings, etc.	0.007 4
260	Artificial and synthetic fibers	0.009 1
311	Foundry products	0.007 3
352	Bodywork, trailers and caravans	0.007 3
246	Millstones and other abrasive products	0.004 2
(012)	Wine	0.0002 )
316	Tools and finished metal articles, except electrical equipment	0.071 4
224	Non-ferrous metals	0.048 4
481	Rubber products	0.022 4
242	Cement, lime, plaster	0.001 5
456	Articles of fur	0.0009 3
<u>Macedonia</u>		
(161)	Electric power	0.007 )
426	Cider, parry, mead	0.00009
(012)	Wine	0.044 )
224	Non-ferrous metals	0.176 4
461	Sawn, planed, seasoned, steamed wood	0.013 4
456	Articles of fur	0.010 3
(020)	Forestry products	0.005 )
222	Steel tubes	0.013 3
341	Insulated wires and cables	0.019
453	Ready-made clothes and clothing accessories	0.284 3
361	Boats, steamers, warships, tugs, floating platforms and rigs, etc.	0.002 3
312	Metal products which are forged, stamped, embossed or cut	0.016 4
(030)	Fishery products	0.010 )
455	Household linen, bedding, curtains, wall coverings, etc.	0.014 4
221	Pig iron, crude steel, hot rolled and cold rolled sheets, etc.	0.095 4
(97C)	Market recreational and cultural services	0.0002 )
466	Articles of cork, straw, basketware (not furniture), brooms, brushes	0.004 4
231	Gravel, stone, sand, and clay	0.009 5
464	Wooden containers	0.00004 4
(014)	Animal products from agriculture and hunting	0.002 )
362	Locomotives, other railway and tramway rolling stock, etc.	0.003 3

**Table 5.** Top Sectors in Trade with EU According to NACE, 1997 (continued)

B. Ranked By Share of Total Exports		
	Share of Total Exports	Factor Intensity Group
<u>Slovenia</u>		
351	Motor vehicles and engines	0.126 4
453	Ready-made clothes and clothing accessories	0.074 3
316	Tools and finished metal articles, except electrical equipment	0.071 4
346	Electric household appliances	0.054 2
224	Non-ferrous metals	0.048 4
342	Electric motors, generators, transformers, switches, etc.	0.047 2
328	Other machinery and mechanical equipment	0.032 2
467	Furniture of wood and cane, mattresses	0.030 3
463	Carpentry, wooden buildings, joinery, parquet flooring	0.026 3
436	Products of the hosiery trade	0.023 3
325	Mining equipment, machinery & equipment for metallurgy, etc.	0.022 2
481	Rubber products	0.022 4
471	Wood pulp, paper, board	0.021 5
343	Electrical equipment for industrial use, batteries, etc.	0.021
353	Spare parts and accessories for motor vehicles	0.019 4
<u>Macedonia</u>		
453	Ready-made clothes and clothing accessories	0.284 3
224	Non-ferrous metals	0.176 4
221	Pig iron, crude steel, hot rolled and cold rolled sheets, etc.	0.095 4
436	Products of the hosiery trade	0.058 3
(012	Wine	0.044 )
451	Footwear, slippers made wholly or partly of leather	0.043 3
(011	Vegetable products from agriculture and forests	0.029 )
341	Insulated wires and cables	0.019
43A	Yarns	0.017 4
312	Metal products which are forged, stamped, embossed or cut	0.016 4
43B	Woven fibers	0.016 4
455	Household linen, bedding, curtains, wall coverings, etc.	0.014 4
414	Fruit and vegetable preserves and juices	0.014 5
461	Sawn, planed, seasoned, steamed wood	0.013 4
222	Steel tubes	0.013 3
456	Articles of fur	0.010 3
(030	Fishery products	0.010 )
322	Machine tools for metal working, tools & equipment for mach.	0.009 2

Codes:

1=high-tech, human capital intensive (high wage)

2=human-capital intensive (high wage) but not capital intensive (low investment)

3=labor-intensive (low wage), use little capital (low investment)

4=labor- (low wage) and capital-intensive (high investment)

5=human capital intensive (high wage), capital-intensive (high investment)

*Sources:* Eurostat COMEXT

## Trade with the EU: Intra-industry Trade

Grubel-Lloyd indexes are employed to measure the extent of IIT; this index is again distributed between zero and one, with higher values indicating a greater preponderance of such trade. The index is defined as follows

$$GL = 1 - \frac{\sum_{j=1}^n |x_j - m_j|}{\sum_{j=1}^n (x_j + m_j)} \quad (3)$$

where  $x_j$  is exports from sector  $j$  and  $m_j$  are imports from that sector.

The results on IIT in Table 4 reveal the starkest difference between Slovenia and Macedonia of all our comparisons. The values of the Grubel Lloyd index for Slovenia are high, rising, above those for the Czech Republic, and not that much shy of those characterizing German trade. For Macedonia, the indices are extremely low and declining; they are below even those exhibited by Bulgaria (Dobrinsky, 1995, p. 91), whose exports “are increasingly concentrated in low-skill, labor-intensive, undifferentiated, price-sensitive commodities” (Eichengreen and Kohl, 1998, p. 6).

IIT can be subdivided into vertical and horizontal types (see, e.g., Aturupane, Djankov, and Hoekman (1997). Horizontal IIT occurs when there is substantial trade in both directions between a pair of partners in products of similar quality but different attributes. Theoretical work on this type of trade suggests that such trade will be prominent among similar countries, and that it will be driven by product differentiation and scale economies. Vertical IIT entails the export and import of similar goods of varying qualities, and arises where large numbers of firms produce sorts of varying quality but there are no increasing returns in production. Unlike horizontal IIT, the vertical type is similar to traditional factor endowment-based trade, with the capital-(labor-)abundant country exporting higher (lower) quality products.

Aturupane, Djankov, and Hoekman (1997) produce a large number of empirical results on both vertical and horizontal IIT in CEE, including Slovenia. Replicating their work in the present study would require a more detailed sectoral breakdown than we currently have available. However, a useful way to identify the main “IIT sectors” is to return to Table 5 and determine which sectors appear in Panel B, but not in Panel A; such sectors are ones which are significant in the relevant country’s trade with the EU, but for which exports and imports are of a relatively similar magnitude.

Having identified the top such sectors, we can distinguish between horizontal and vertical IIT on the basis of the rules on the ratios of export and import unit values presented in Aturupane, Djankov, and Hoekman (1997, p. 8). Sectors with very high or very low ratios of export unit values to import unit values are deemed to be ones with vertical IIT, while those with intermediate such ratios are characterized by horizontal IIT.

Making such calculations for the top ten “IIT sectors” in Macedonia and Slovenia reveals very little difference between the two countries in this regard, the only such instance



in this study. As found by Aturupane, Djankov, and Hoekman (1997) for all CEE countries, vertical IIT is dominant, the only exceptions in the present instance being motor vehicles and engines (351) in Slovenia, and pig iron, crude steel, hot rolled and cold rolled sheets, coated metal sheets (221) in Macedonia. Note finally that vertical IIT occurs in both directions. For example, for Macedonia, products of the hosiery trade (436) having a much higher export unit value than import unit value, while for woven fibers (43B), the situation is reversed.

## IMPLICATIONS AND CONCLUDING REMARKS

Virtually all the evidence unearthed in this study points to large and in many cases growing differences between the trade patterns between Slovenia and Macedonia. These include the following about the latter relative to the former:

- it has more unbalanced trade and a more unstable set of trading partners;
- it is less EU-oriented in its trading partners;
- its overall exports tend to be more labor intensive and to have lower levels of processing, and even the importance of labor-intensive products is declining in favor of ones in SITC sectors 0-2;
- its trade with the EU is much more concentrated on the export side, and somewhat more concentrated on the import side;
- the structure of its exports to the EU differs enormously from Slovenia's and the difference is growing rapidly;
- it has very few high wage sectors in its exports to the EU; and
- it engages in extremely little intra-industry trade with the EU (although the unit values of that IIT in which it does engage are not appreciably lower than the equivalent figures for Slovenia).

Overall, these results help us to answer the three questions posed earlier in the paper. First, the evidence on foreign trade suggests that Macedonia's economic transition is proceeding fitfully and, more disturbingly, that its lag behind the leading transition countries is in many cases growing. Second, it implies that Macedonia is a developing country, at least as much as such other Balkan countries as Bulgaria. Finally, on the export side, fairly rapid structural changes are occurring in Macedonia's trade with the EU, but they are generally in perverse directions. It may be that rather than distorting the country's trade patterns, belonging to former Yugoslavia was helpful in this regard<sup>25</sup>; if so, it would differ from the case of Slovakia, where post-independence structural changes have generally been favorable (see Wyzan, 1998).

It is clear that the economy of Macedonia will need to be thoroughly restructured if the country is to move decisively in the direction of a developed market economy. Closer relations with the EU – if not accession, at least a more favorable treatment for its agricultural and “sensitive sector” products – would certainly help. Interestingly, Macedonia seems to have little to lose from greater trade liberalization with the EU, since, for example, it lacks Slovenia's advanced but not quite leading edge enterprises in the machinery and equipment sector.

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<sup>25</sup> One manner in which this might have been accomplished is through the processing and re-exporting of such Macedonian goods as wine and *ajvar* (a spicy sauce made from red peppers) by Slovenia and other more developed republics. For example, wine would be shipped to Slovenia in bulk form and bottled there.

Arguably even more important, especially in such a small country, would be FDI inflows on a large enough scale to remake from scratch Macedonia's productive capacity.<sup>26</sup> Before the outbreak of warfare in former Yugoslavia in late March 1999, FDI seemed to be picking up, reaching \$118 million in 1999, after being negligible in previous years. The government had also been hoping for a substantial inflow of FDI from Taiwan, with which it established diplomatic relations in late January 1999 (the figure of \$200 million over four years was frequently mentioned). The heightened instability in the region seems almost certain to reduce FDI inflows in the medium term relative to what they otherwise would have been. Nonetheless, it is encouraging that large deals involving Greek investors in petroleum refining and transport and thermal electricity generation seem to be in the works (MILS news agency, May 6, 1999).

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<sup>26</sup> See Eichengreen and Kohl (1998) for arguments in favor of the importance of FDI to a successful transition in CEE and a review of the literature on this theme.

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