

THE INTEGRATION OF CENTRAL EUROPEAN COUNTRIES INTO THE WESTERN EUROPEAN ECONOMY FROM 1988 TO 1998

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In 1998, the European Union (EU) entered into negotiations with Cyprus, the Czech Republic, Estonia, Hungary, Poland and Slovenia concerning the enlargement of the Union. At the end of 1999, the European Commission decided that six other countries could join the negotiations in 2000 (Bulgaria, Lithuania, Latvia, Slovakia, Malta and Romania), and it was suggested that a decision concerning the date of membership would be taken in 2002 for these applicants fulfilling all the criteria. Many questions still remain on both sides, in particular regarding institutional reform of the EU (Festoc, 1998), and the ability of the Central and Eastern European countries to adopt the “acquis”.

In this article, we shall evaluate the ways in which the Central European countries (Poland, Hungary and the Czech Republic – the CECs) have already integrated to the Western European economy, using trade data over the last ten years. First, we show that since the beginning of the transition, a feature of the foreign trade of the CECs has been a strong reorientation from East to West, in particular to Germany, together with a rapid growth in trade between the EU and the CECs. Second, we describe the trade structure, focussed on foreign direct investment as a mean of developing new exports. The third and fourth sections study the development of the specialisations of the CECs and the nature of trade between the CECs and the EU respectively.

Keywords: Central and Eastern Europe, trade, FDI, enlargement

JEL classification index: L6, O14, P27, F14, J31

1. DEVELOPMENT OF TRADE BETWEEN THE EU AND THE CECs

1.1. Strong reorientation from East to West

From the beginning of the transition, the Central European countries have tried to redirect their foreign trade from East to West: the share of the Western markets in the total exports of the CEC's increased to 78% in the case of Hungary in

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the first quarter of 1997 (ECE-UN, 1997). This reorientation largely benefited the European Union, which has become the main trading partner of the CECs, but has been of very little benefit to the USA (Piazolo, 1997, p. 262).

In 1988, these three countries were in a minority position in the foreign trade of the European Union, as they only accounted for 2% of total extra-EU imports and exports. Their share was therefore roughly the same as that of the Maghreb¹ countries. However, the relative weight of the CECs increased significantly between 1988 and 1998, to reach 6.4% of extra-EU imports and 8.5% of exports, whereas the share of the Maghreb countries fell slightly.

1.2. Strong growth of trade

Trade between the Central European countries and the European Union has experienced very strong growth since the beginning of the transition (*Figures 1 and 2*). Over the last ten years, exports from the CECs to the EU have increased at an average annual rate of 17% in the case of Poland, and 21% for Hungary, whereas extra-EU imports only grew at a rate of 6.3% (average annual growth

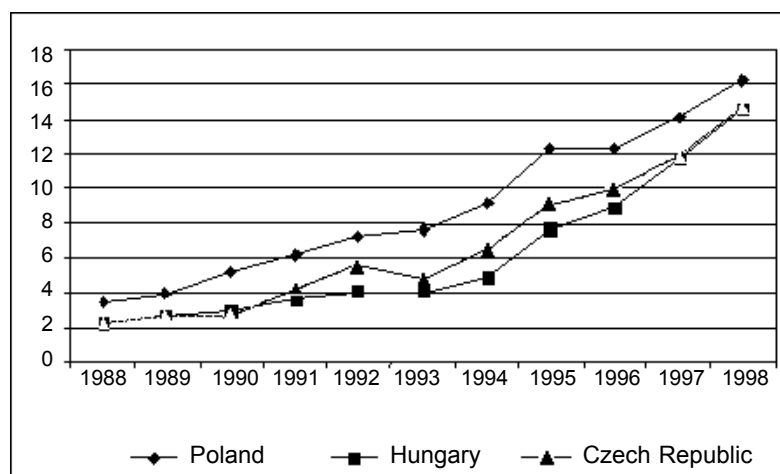


Figure 1. CECs exports to the EU, from 1988 to 1998 (billion Euros)

Source: Comext (European trade data base).

¹ Tunisia, Marocco and Algeria, which in 1988 represented around 2.2% of the extra-EU trade.

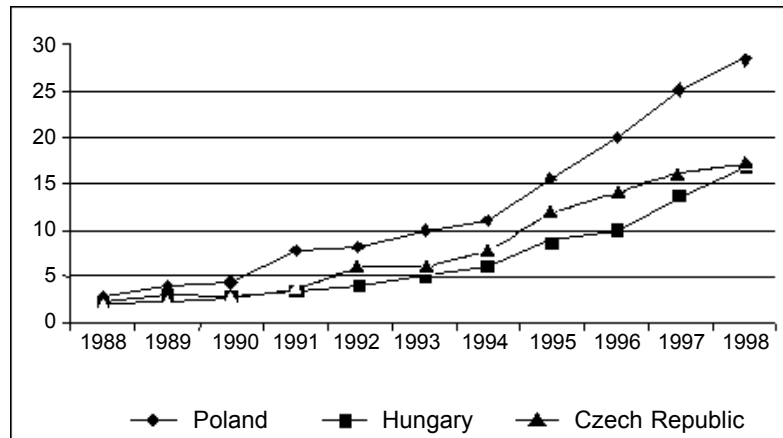


Figure 2. CECs imports from the EU, from 1988 to 1998 (billion Euros)

Source: Comext.

rate) over the same period. Similarly, the annual average growth between 1988 and 1998 of Eastern European imports from the EU was between 20 and 30% against a rate of 7.3% for extra-EU exports.

1.3. Accentuation of the CECs trade deficit

As imports have grown faster than exports, the balance of trade of the CECs with the EU has rapidly deteriorated (*Figure 3*). In 1998, Hungary and the Czech Republic managed first to stabilize and then to reduce their trade deficit with the EU. As far as the Czech Republic is concerned, the reduction of the deficit can be explained by a slowdown in demand. Poland, on the other hand, reached a record deficit of 12 billion Euros in 1998. Poland is the only Central European country that experienced a sustained deterioration of its trade balance, and it is concerned that it may not be sustainable. However, according to the *Economic Survey of Europe* (ECE-UN, 2000), “prospects are good for a further strengthening of foreign demand for eastern goods”, which should then boost Polish exports and hence reduce the trade deficit.

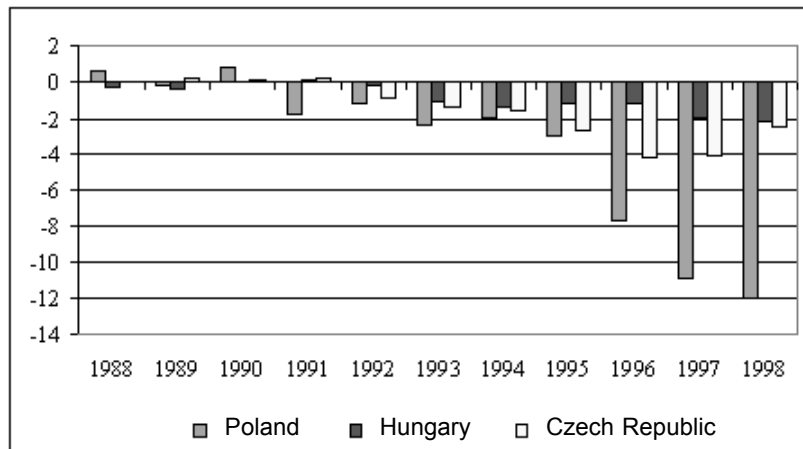


Figure 3. Balance of trade of the CECs with EU, from 1988 to 1998 (billion Euros)

Source: Comext.

1.4. The leading position of Germany

Trade between the Central European countries and the European Union is highly concentrated in some countries. The CECs trade mainly with Germany, Italy, Austria, France, the United Kingdom and the Netherlands (*Figure 4*): these countries accounted for about 85% of trade between the CECs and the EU in 1998.

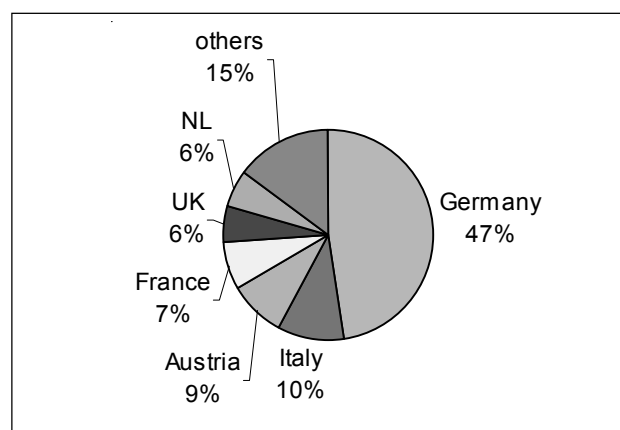


Figure 4. Geographic structure of trade between the CECs and the EU, 1998 (%)

Source: Comext.

Germany is the main trading partner of the CECs: its share of the total EU trade with Poland was approximately 46% and about 57% with the Czech Republic in 1998. In fact, Germany has rapidly replaced the ex-USSR as the primary trading partner of the CECs. This share is probably more than its potential value, as we have shown in Festoc (1997). As far as Russia is concerned, it now appears on the fourth place in Polish imports (5.3% of total imports in 1998 – behind Germany, Italy and France) and also those of the Czech Republic (behind Germany, Slovakia and Austria); it remained however, Hungary's second trading partner (Tóth, 1999; Borzeda, 1999).

It is also important to highlight the role of Austria, which does little trade with Poland (3.2% of trade between Poland and the EU), but much more with the Czech Republic (9.5%) and Hungary (16.0%). Obviously, geographic and historic ties explain these differences.

2. THE STRUCTURE OF TRADE

2.1. Convergence of the structure

Some trends in trade structure are the same for the three Central European countries. First, trade mainly consists of manufactured products, and the share of these products has increased since 1988. Even Hungary, where exports of agricultural products represented 28.5% of total exports to the EU in 1988, reduced its share to 7% in 1998.

2.2. Main exports in 1998

As can be seen in *Table 1*, on the one hand traditional exports, such as textiles or iron and steel, still accounted for a significant share of the CECs' foreign trade in 1998; on the other hand, these countries have developed new exports.

For the three countries, it is interesting to note the strong development of exports in car industry, mainly since 1992 for Poland and since 1995 for the Czech Republic and Hungary. In 1997, car industry accounted for about 17% of total Czech exports to the EU: it therefore represented the main export sector of the Czech Republic. The case of Hungary is striking: car production was not significant in 1992, although this industry represented the third export sector in 1998. Foreign direct investment (FDI), mainly from Opel AG (General Motors) and the Suzuki Motor Corporation, explains a major part of this development. In this industry, probably more than in any other, export growth has been strongly con-

nected to the FDI, mainly since 1992: the buying up of FSM (main Polish car firm) by Fiat in May 1992, and the acquisition of 31% of Skoda Automobilova A.S. by Volkswagen in 1991 (interest raised to 70% since then). In Poland, more than half of the production of Fiat is exported, and this share rises to 70% in the case of Czech car production (ECE-UN, 1997).

Table 1

Main exports of CECs to EU

Sector	Share in 1998 of total exports (%)			Change over 1988–1998		
	Hungary	Poland	Czech Republic	Hungary	Poland	Czech Republic
27 Mining	1.7	5.8	2.5	-1.4	-5.7	-4.4
39 Plastics	2.6	1.8	3.1	-0.4	0.7	-0.3
44 Wood	1.7	5.2	3.6	-1.2	0.8	-4.0
62 Clothing	4.4	9.4	2.2	-5.1	2.1	-1.0
72 Iron and steel	1.9	3.4	3.8	-3.4	-0.5	-8.0
73 Iron and steel products	1.9	5.0	6.0	-0.3	2.2	3.8
84 Machinery and equipment	29.0	5.6	13.1	22.7	2.5	7.3
85 Electrical equipment	21.7	11.1	12.8	16.8	8.2	10.1
87 Car industry	6.8	9.5	16.9	5.9	4.9	11.5
94 Furniture	2.3	9.0	4.6	-0.3	5.9	2.0

Source: Comext.

Central European countries attract foreign investors for several reasons. First, labour is well qualified, and cheap: for example, in 1996, the hourly labour rate in the Czech Republic was \$4 on average versus \$30 in Germany (Larçon, 1998). Second, geographic proximity to Western markets gives a strong advantage to the CECs compared with Asian countries, as transport costs are much lower. Finally, the market potential in these countries is important, which also attracts foreign producers.

As far as the textile industry is concerned, it was the dominant export sector of the CECs for several years (Festoc, 1996, 1997). These exports constituted the first step towards the insertion of the CECs into the European economy, as they were mainly a redeployment of Western production segments, which were labour-intensive, due to the lower cost advantage. However, the real wage increase in the CECs has reduced cost competitiveness in this sector, where competition with Asian countries is very high, and this has led to a shift in produc-

tion to Southeast Europe. Since 1993, therefore, the textile industry's share in the CECs exports has been declining.

2.3. Main imports in 1998

Central European countries' imports from the European Union are much more concentrated than exports: four industries represent half or more of the total imports (plastics industry, machinery and equipment, electrical equipment and car industry). It is also worth noting that the structure of Eastern European imports did not change significantly between 1988 and 1998, compared to exports (*Table 2*).

Table 2

Main imports of CECs from EU

Sector	Share in 1998 of total exports (%)			Change over 1988–1998		
	Hungary	Poland	Czech Republic	Hungary	Poland	Czech Republic
39 Plastics	4.2	5.9	5.9	-0.9	0.6	0.3
84 Machinery and equipment	21.1	20.2	18.9	0.5	-2.7	-13.8
85 Electrical equipment	19.0	10.6	15.8	11.2	6.6	10.4
87 Car industry	15.6	11.5	9.9	12.1	7.6	8.0

Source: Comext.

3. SPECIALISATIONS IN THE CECS

Specialisations in Central European countries, and their development since the beginning of the transition, provide some information by the way they fit into the European economy. They are evaluated by the trade balance indicator (*ICS*, expressed here in thousands of total trade)² (Lafay, 1987), which compares the balance of a country for a given product to a theoretical balance for the same product, in order to rule out the influence of macroeconomic factors on present disequilibria. A positive sign reveals a comparative advantage. Here, we have calculated these revealed comparative advantages at the most detailed level of aggregation, for industrial products only, and then have aggregated the results.

We can first compare the *number* of sectors for which the CECs have a revealed comparative advantage; in 1998 this number is much higher for the Czech Republic (more than half of the industries) than for Poland and particularly Hungary. The situation of Hungary was very different in 1988; the number of comparative advantages had dramatically decreased. It must also be noted that for the three CECs, in 1988, as in 1998, the number of comparative disadvantages was much lower for the poorer countries of the EU (Greece, Portugal and to a lesser extent Ireland) than for the richer.

If we now consider the *weight* of the sectors in industrial exports, conclusions differ slightly. While Hungary had less comparative advantages than Poland and the Czech Republic in 1998, their weight in industrial exports was much higher, as it reached 81.2% versus 72.4% (Poland) and 61.2% (Czech Republic). Furthermore, compared to 1988, development diverges: for Hungary, the weight of the comparative advantages in exports increased (it was around 70% in 1988) whereas it decreased for the other two (about 81% in both cases).

The main advantages and disadvantages in 1988 and 1998 are given in *Tables 3 and 4*. In 1998, most of the advantages common among the three countries still came from labour-intensive industries (clothing, shoes) or raw materials (mining industry, wood). These sectors already enjoyed comparative advantages in 1988, but in general they had weakened over the last ten years, due to an increase in labour costs. We may also add that these advantages are apparent only among the richer countries of the EU, but not with southern EU countries (Spain, Portugal and Greece), with which the CECs textile industry in particular indicates a comparative disadvantage. As far as the comparative disadvantages of the three CECs with the EU are concerned, the situation in 1998 was not very different from 1988, as we found in the cases of pharmaceuticals, various chemicals, plastic, paper and precision instruments.

For the other sectors, mainly machinery and equipment, electrical equipment and the car industry, specialisations in the CECs are different. Machinery and equipment, and electrical equipment were at a great disadvantage in Hungary in 1988, but became advantageous in 1998: in the Czech Republic and Poland, however, these specialisations were still at a disadvantage. Hungary (and Poland to some extent) also suffered from the disadvantage in the car industry, whereas it was an advantage for the Czech Republic. If we look at the overall level, how-

$$^2 \quad ICS = \left[(X_{ik} - M_{ik}) - \frac{(X_{ik} + M_{ik})}{(\sum X_i + \sum M_i)} \cdot (\sum X_i - \sum M_i) \right] \cdot \frac{1000}{\sum X_i + \sum M_i}$$

with: X = exports, M = imports, i = country and k = product.

Table 3

Main comparative advantages and disadvantages of the CECs with the EU, 1998

Sector	Hungary	Poland	Czech Republic
27 Mining industry	++	+++	++
29 Chemicals	+	+	+
30 Pharmaceuticals	--	----	----
38 Chemicals, various	--	--	--
39 Plastics	--	----	----
41 Leather	--	-	-
44 Wood	++	++++	+++
48 Paper	--	--	--
62 Clothing	+++	++++	++
64 Shoes	++	+	+
70 Glass	+	+	++
72 Iron and steel	+	++	++
73 Iron and steel products	-	++	+++
74 Brass	-	+++	-
76 Aluminium	++	-	+
84 Machinery and equipment	++++	----	----
85 Electrical equipment	++++	+	----
87 Car industry	----	-	++++
90 Precision instrument	--	--	--
94 Furniture	++	++++	+++

A +(-) sign indicates a comparative advantage (disadvantage) revealed by the contribution to the trade balance indicator.

Source: Author's calculations from Comext.

ever, of each EU country, it appears that Hungary built up an advantage between 1988 and 1998, particularly with Germany, although its disadvantage with the EU was largely due to Spain. As for Poland, it has greatly strengthened its relationship with Italy, which is the main investor in the car industry in this country: this leads us to look closer at the link between comparative advantage and foreign direct investment. It is difficult to reach a conclusion by concerning that the FDI influences the CECs' specialisations, as we find investments both in sectors for which these countries have comparative advantages, and also in other industries (Table 4). According to Havlik (2000), "FDI clearly contributes to efficiency improvements in CEEC manufacturing, but does not (still) necessarily show up as a factor explaining the revealed comparative advantage of CEEC manufacturing in trade with the EU". One reason put forward by Freudenberg and Lemoine (1999) lies in the distinction between the investors' motivations: some of them seek access to the host country's or the region's market; in this case it is a me-

dium-term strategy. Others choose the CECs to delocate: in this case, there might be a problem of sustainability of comparative advantages, as wages increase and cheaper competitors appear.

Table 4

Main comparative advantages and disadvantages of the CECs with the EU, 1988

Sector	Hungary	Poland	Czech Republic
27 Mining industry	+++	++++	++++
29 Chemicals	+	----	+++
30 Pharmaceuticals	-	----	-
38 Chemicals, various	----	----	----
39 Plastics	--	----	----
41 Leather	----	-	----
44 Wood	+++	++++	++++
48 Paper	--	-	+
62 Clothing	++++	++++	+++
64 Shoes	+++	++	+
70 Glass	+	+	++++
72 Iron and steel	++++	++	++++
73 Iron and steel products	+	+	+
74 Brass	+	++++	-
76 Aluminium	+++	-	-
84 Machinery and equipment	----	----	----
85 Electrical equipment	--	-	----
87 Car industry	----	++	+++
90 Precision instruments	----	----	----
94 Furniture	+++	+++	+++

A +(-) sign indicates a comparative advantage (disadvantage) revealed by the contribution to the trade balance indicator.

Source: Author's calculations from Comext.

To conclude the development of specialisations in the CECs between 1988 and 1998, we use a classification proposed by Freudenberg and Lemoine (1999), that distinguishes between:

- *Increased specialisation* when comparative advantages and disadvantages became more pronounced between 1988 and 1998,
- “*Despecialisation*” (reduced specialisation) when comparative advantages and disadvantages were reduced between 1988 and 1998, and
- *Change in specialisation* when an industry switched from a comparative advantage to a comparative disadvantage (or conversely) between 1988 and 1998.

Table 5

Evolution of the specialisation's of the CECs with the EU, from 1988 to 1998,
in % of the total industrial exports

Sector	Hungary	Poland	Czech Republic
<i>Increased specialisation</i>	2.3	27.7	36.9
– Increased advantage	0.4	24.7	33.1
– Increased disadvantage	1.9	3.0	3.8
<i>Despecialisation</i>	38.8	45.5	57.1
– Reduced advantage	23.7	31.6	24.6
– Reduced disadvantage	15.1	13.9	32.5
<i>Change in specialisation</i>	58.9	26.9	5.9
– Advantage to disadvantage	3.3	10.7	2.6
– Disadvantage to advantage	55.6	16.2	3.3

Source: Author's calculations, from Comext.

The results (Table 5) show that the three Central European countries followed different paths since the beginning of the transition. Hungary clearly changed its specialisation, transforming the comparative disadvantages of 1988 into advantages by 1998: these specialisations were primarily of machinery and equipment, and electrical equipment. Poland and the Czech Republic shifted towards “despecialisation”, however, while Poland mainly experienced a reduction in existing comparative advantages, while the Czech Republic largely saw a reduction of disadvantages. One can also see very little increased specialisation in the existing comparative advantages of 1988 in the case of Hungary, while Polish and Czech industrial exports to the EU increased significantly. Finally, specialisations have changed the least in the Czech Republic, which may be a sign of short-term changes to come, once the significant industrial restructuring be started; the Czech Republic lags behind Poland and Hungary in this respect.

4. THE NATURE OF THE EU–CECs TRADE

4.1. Significance of the appraisal of the nature of trade

The traditional theory of international trade through the existence of comparative advantages and disadvantages is determined by the relative factor endowment or by technological know-how. Each country specialises in the production and the export of goods using abundant factors in the economy. However, these theories do not take into account the intra-industry trade (IIT), that is, trades of similar products between countries, which can appear as incompatible with the

specialisation of each country. New developments of the theory of international trade have, therefore, made it possible to explain IIT, mainly by rejecting perfect competition and by stressing product differentiation.

Three types of trade can then be defined (Fontagné and Freudenberg, 1997):

- *Inter-industry trade*: one-way trade (minority flow represents less than 10% of the majority flow),
- *Intra-industry trade of similar products* (horizontal differentiation): two-way trade of products, which have similar design features and price, and
- *Intra-industry trade of vertically differentiated products*: two-way trade of products, which have similar design features but at different prices.

The distinction between these three types of trade is important in order to estimate adjustment costs linked to trade expansion; in fact, these costs will be high in the case of inter-industry trade as some production may be given up to develop other comparative advantages, which means a high cost in terms of employment. But these costs can also appear in the case of vertical two-way trade (differentiation according to quality), since there is still specialisation in this case and hence re-allocation of resources, within the same industry, but according to different ranges. Therefore, the adjustment costs will be low only when there is horizontal two-way trade.

Furthermore, the distinction between horizontal and vertical two-way trade is important because it shows the convergence in the nature of trade between the CECs and the EU with that of intra-EU trade. This is important from the prospect of EU enlargement to include Central European countries. According to a survey published by the CEPII on nations competitiveness (1998), about half of the intra-EU trade on average was intra-industry trade in 1996 (from 10% for Greece to 55.5% for Belgium and Luxembourg), and 72% of this IIT was in fact vertically differentiated two-way trade. As far as the extra-EU trade is concerned, three-quarters correspond to a one-way trade.

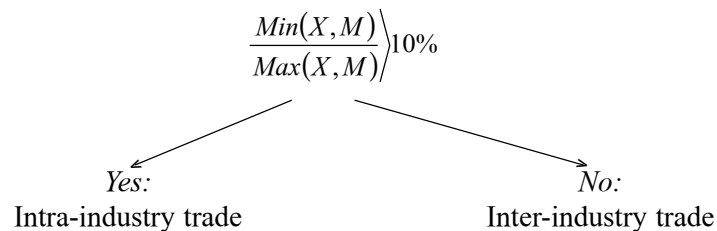
4.2. Method of analysis

The distinction between horizontal and vertical differentiation implies the calculation of unit values of exports and imports, and we consider that the difference in unit values reveals a difference in quality. The similarity threshold generally used is 15%: if unit values differ by less than 15%, then quality differences between exports and imports are considered as weak, and it is then a horizontal differentiation.

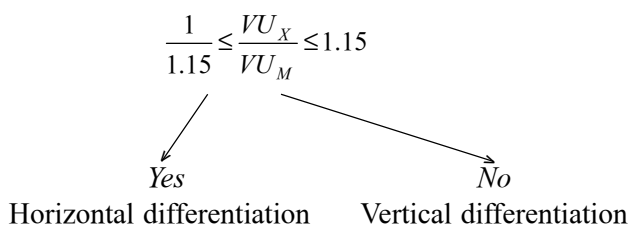
The method we use can be summarised as follows (Abd-El-Rahman, 1986 and 1991; Fontagné and Freudenberg, 1997):

Overlap in trade

Does the value of the minority flow represent at least 10% of the majority flow?



Similarity of traded products?
Do the unit values of exports and imports differ by less than 15%?



Calculations are made at the most detailed level of the “combined nomenclature” (8 digits), only for industrial products.

4.3. Results

In 1988, the nature of industrial trade between the three Central European countries and the European Union were somewhat similar, as about three quarters (from 72% in the case of Hungary to 80% in the case of Poland) was inter-industry trade. Ten years later, the situation was very different since the share of inter-industry trade varied from one country to the other: from less than a third between the Czech Republic and the European Union to more than half between Poland and the EU (*Table 6*). Poland, therefore, appears to be less integrated in the European trade division than Hungary and the Czech Republic, which tends

Table 6

Share of inter-industry trade in EU-CECs trade, 1988 and 1998 (%)

Countries	Hungary		Poland		Czech Republic	
	1988	1998	1988	1998	1988	1998
France	85.1	74.1	90.9	78.2	91.1	54.6
Belgium-Luxemburg	91.3	73.4	95.3	79.1	92.1	74.5
Netherlands	92.6	81.1	91.3	79.5	92.2	62.6
Germany	75.3	49.8	87.1	67.3	82.7	31.4
Italy	94.1	70.8	91.7	74.7	93.2	69.5
UK	84.0	81.8	89.4	79.2	87.9	75.1
Ireland	99.4	97.0	99.9	98.0	99.9	88.6
Denmark	93.0	89.1	88.5	67.8	94.4	87.3
Greece	99.2	98.2	99.8	94.2	99.5	96.1
Portugal	99.1	98.0	98.4	92.2	99.1	84.3
Spain	97.1	87.6	98.9	83.7	94.1	60.9
Sweden	–	81.6	–	76.4	–	81.3
Finland	–	87.8	–	91.9	–	92.8
Austria	–	53.3	–	85.7	–	56.3
EU	72.0	44.8	80.0	59.9	78.8	30.6

Source: Author's calculations from Comext.

to suggest that the expansion of the EU to include CECs could be more costly for Poland in terms of adjustment.

Generally speaking, we notice that the share of inter-industry trade is weakest with Germany, and, in the case of Hungary and the Czech Republic, with Austria. This tends to confirm the link between two-way trade and direct investment, as Germany is the first investor in these countries. Conversely, inter-industry trade remains predominant with the poorest countries of the EU, that is Greece and Portugal, and also with Ireland and Finland.

As far as the two-way trade between the EU and the CECs is concerned, Table 7 shows that it is mainly vertical two-way trade, (i.e. a vertical product differentiation), which represents the type of integration made by Central European countries into the European economy. It should be noted, however, that the share of horizontal two-way trade increased between 1988 and 1998: in 1998 it represented about 7% of total trade between Poland and the EU and more than 17% of Czech trade with the EU although this share accounted for less than 3% in 1988 regardless of the country.

Table 7

Share of the vertical two-way trade in the total two-way trade EU-CECs, 1988 and 1998 (%)

Countries	Hungary		Poland		Czech Republic	
	1988	1998	1988	1998	1988	1998
France	91.7	88.8	98.5	80.0	93.1	81.4
Belgium-Luxemburg	96.8	93.4	91.9	74.3	97.5	81.2
Netherlands	87.1	90.3	96.0	85.8	97.4	92.9
Germany	88.2	82.6	97.2	87.1	96.1	80.2
Italy	92.3	88.1	95.3	78.3	95.2	72.1
UK	94.0	90.8	97.8	68.9	94.7	86.0
Ireland	100.0	99.1	100.0	98.5	100.0	99.4
Denmark	48.1	97.2	91.3	86.9	66.8	87.1
Greece	100.0	74.6	100.0	76.2	100.0	56.8
Portugal	100.0	98.8	100.0	89.6	100.0	97.3
Spain	100.0	61.5	100.0	59.5	83.5	48.5
Sweden	–	88.6	–	71.1	–	65.3
Finland	–	71.7	–	90.8	–	95.9
Austria	–	83.5	–	90.4	–	79.6
EU	89.8	79.3	91.1	81.9	96.2	75.0

Source: Author's calculations from Comext.

Let us turn now to the level of industry. In 1988, for many industries, trade was primarily one-way. Only a few industries, such as rubber, were already involved in two-way trade, which accounted for more than half of the total trade. In all cases, two-way trade involved vertically differentiated products. Between 1988 and 1998, the number of industries moving towards two-way trade increased: in the Czech Republic there are now more industries involved in two-way trade than in one-way. However, as of 1998, it was still mainly vertical two-way trade.

We find the study of the nature of trade of the most popular products (as described in section 2) very interesting. *Tables 8 and 9* show some of the results presented above. One-way trade has the least importance in the Czech Republic, as the share of two-way trade is greater than half for most industries. For all the three countries, two-way trade affects mainly iron and steel products and electrical equipment. The share of one-way trade is particularly low for the Czech clothing trade, car industry and furniture. In all three countries, the share of one-way trade decreased for each industry between 1988 and 1998.

Table 8

Share of one-way trade in CECs–EU trade, main products, (%)

Sector	Share in 1998 of total exports (%)			Change over 1988–1998		
	Hungary	Poland	Czech Republic	Hungary	Poland	Czech Republic
Mining	53.8	96.0	74.6	–45.9	–3.8	–25.0
Plastics	23.7	55.4	26.0	–41.1	–10.9	–42.1
Wood	45.4	62.0	53.6	–42.1	–35.9	–43.1
Clothing	32.6	49.0	15.2	–50.1	–35.9	–66.7
Iron and steel	63.4	72.6	54.6	–30.6	0.2	–41.3
Iron and steel products	28.2	33.5	20.1	–14.7	–36.0	–47.7
Machinery and equipment	50.4	68.0	24.0	–9.1	–0.8	–47.6
Electrical equipment	35.1	43.7	25.7	–27.2	–7.0	–54.9
Car industry	28.4	50.9	10.8	–40.5	–21.1	–67.1
Furniture	10.9	52.9	5.7	–69.7	–40.2	–53.5

Source: Author's calculations from Comext.

Table 9

Share of vertical trade in UE–CECs two-way trade, main products, (%)

Sector	Share in 1998 of total exports (%)			Change over 1988–1998		
	Hungary	Poland	Czech Republic	Hungary	Poland	Czech Republic
Mining	33.8	58.4	36.0	–66.2	–41.6	–64.0
Plastics	81.9	92.0	94.0	–17.4	–7.1	–5.2
Wood	82.9	88.8	84.8	9.0	32.3	–15.2
Clothing	78.9	54.6	68.9	56.6	4.2	–6.1
Iron and steel	92.3	87.9	83.8	–3.0	46.0	–15.5
Iron and steel products	93.8	96.3	89.5	–6.1	–3.6	–4.0
Machinery and equipment	75.8	93.3	87.2	–19.2	–6.0	–10.4
Electrical equipment	78.7	79.0	85.3	–20.9	–19.7	–9.2
Car industry	87.0	71.9	28.1	–9.8	–24.7	–65.6
Furniture	75.4	95.7	90.6	–22.8	–4.3	–9.4

Source: Author's calculations, from Comext.

Two-way trade is involved in more than three-quarters in most of the industries with vertical differentiation. It is, however, striking that two-way trade in

the car industry between the Czech Republic and the EU is made up of 72% of horizontal trade. The share of vertical trade decreased in most cases, except for the Hungarian clothing trade (only 22% in 1988 but 79% in 1998).

5. CONCLUSION

The development of trade between the Central European countries and the European Union confirms a strong convergence between these two regions. Our results show, on the one hand, a reduction in the share of one-way trade, and on the other hand, the extension of vertical two-way trade, even if horizontal two-way trade has begun to develop. These developments are encouraging with the prospect of the enlargement of the EU by the CECs, for this means that the costs linked to trade integration will be reduced. Furthermore, the increase of two-way trade suggests a better integration into the Western European economy: the nature of EU–CECs trade is close to that of intra-EU trade than to the one between the EU and the other three countries.

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