

## **LA REFORMA DE LA CALIDAD DEL PRODUCTO EN LOS PAÍSES DEL CENTRO Y DEL ESTE DE EUROPA Y LA PRÓXIMA AMPLIACIÓN DE LA UNIÓN EUROPEA**

**GIOVANNI GRAZIANI**

### **RESUMEN:**

El artículo muestra como ha impactado el proceso de regionalización y la fragmentación internacional de la producción sobre la mejora de los estándares de calidad del producto. La reorientación paulatina del comercio hacia países y regiones geográficamente próximos es un fenómeno mundialmente conocido. Además, se analiza como la polarización del comercio de Europa del Este hacia el conjunto de países de la Unión Europea y el proceso de mejora han tenido lugar en un contexto de liberalización comercial progresiva: de hecho la mejora de los estándares de calidad se materializa cuando empiezan a caer las barreras comerciales. En el marco del proceso global de mejora de la calidad, el autor identifica a dos países, Hungría y Eslovenia, como los que más han reducido la distancia respecto a la media comunitaria.

**PALABRAS CLAVE:** Liberalización comercial, especialización comercial, comercio exterior, proceso de ampliación, niveles de calidad, Hungría.

## **PRODUCT QUALITY UPGRADING IN CENTRAL-EASTERN EUROPEAN COUNTRIES AND THE COMING EU ENLARGEMENT**

**GIOVANNI GRAZIANI\***

### **SUMMARY:**

The paper shows how far the process of regionalisation and international fragmentation of production has had an impact on upgrading product quality. The progressive reorientation of trade toward geographically proximate countries and regions is a well-known worldwide phenomenon. Moreover, the polarisation of East European trade around the EU cluster and the process of upgrading has taken place within a context of progressive trade liberalisation: in fact the improvement in quality levels materialised when trade barriers started to fall. Within the general upgrading process the author found that two countries, Hungary and Slovenia, have fared better than the others in closing the gap with the average intra-EU.

**KEYWORDS:** Trade liberalisation, trade specialisation, external trade, enlargement process, quality levels, Hungary.

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*Remark:* A previous version of the paper was presented at the 6th EACES Conference on *Globalisation and European Integration*, Barcelona, 7-9 September 2000.

\* El texto se publica por gentileza del editor Franco Angeli. Proviene de: **Graziani, G.**, Product Quality Upgrading in Central-Eastern European Countries and the Coming EU Enlargement. In: **Baldone S.; Sdogati, F.; Tajoli, L. (eds).** *EU Enlargement to the CEECs: Trade Competition, Delocalisation of Production and Effects on the Economies of the Union.* Milano, Franco Angeli ed., 2002, pp. [53]-[72].

## 1. METHODOLOGY, DATA AND CAVEATS

The EU has launched negotiations for the accession to full EU membership with ten Central and East European countries (Hungary, the Czech Republic, Slovakia, Poland, Slovenia, Bulgaria, Romania, Estonia, Latvia and Lithuania). Every new enlargement is bound to provoke mixed feelings among both the incumbent members and the other competing countries that remain out.

There are various ways in which to evaluate the possible impact of such an enlargement. The present paper takes a limited approach by focusing on one narrow aspect: that of product quality or differentiation in traded industrial manufactured goods. Apart from being at the basis of some empirical works on the key theoretical distinction between horizontal and vertical differentiation in intra-industry trade (Falvey, 1981; Abd-El-Rahman, 1986), a study of quality levels of industrial manufactured exports seems to be important in itself, since it allows to reach various objectives.

The first objective is to gauge the extent of upgrading taking place within a certain context of international trade policy and to relate it to the well-known problem of catching up. Although GDP per capita, productivity and other variables remain fundamental global indicators for that task, the relative quality of industrial products is an additional and important element in order to appreciate more fully such a process of convergence.

Moreover this type of analysis allows refining the concept of competitiveness. This is not to say that upgrading should be necessarily identified with increasing competitiveness. An export structure may be downgrading and still be competitive in those lower quality levels. What I want to stress is that through this type of analysis one can understand more accurately the type of competitive challenge that those products represent both for the importing region and for the other competitors, even more so if one uses it in conjunction with other trade indicators like specialisation indices, weighted trade balances, intra-industry trade indices and the like. The possible threat that those imports may represent has then to be appreciated taking into account that different countries may specialise in different qualities of a given product (vertical differentiation), and not only in different varieties of the same good (horizontal differentiation) or in different products tout court (inter-industry specialisation).

To establish whether there exist systematic differences in the quality of industrial manufactured exports of the East European countries cited above to the EU market – by far their largest outlet - and whether one can speak of a process of catching up, I consider the unit values of EU imports of industrial manufactured imports from each of the countries concerned as compared to intra-EU trade values. The analysis elaborates on the 8-digit products included in the 2-digit categories going from 28 to 99, altogether 10581 products reported in the Eurostat *Comext* statistics.

Products will be considered up-market (relatively high quality) if the unit value of their imports into the EU is at least 15 percent higher than the intra-EU average;

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down-market (relatively low quality) if the unit value is at least 15 percent lower; middle-market (relatively comparable quality) if it is included in the  $\pm 15$  percent range. So the methodology is slightly different from the one used by Fontagné *et al.* (1997) and Landesmann and Burgstaller (1997), since they refer the values of trade flows to the average of similar flows (in our case we should have referred them to the average extra-EU), while more similar to the one employed by Freudenberg and Lemoine (1999), although their interest is more on absolute quality levels rather than on the process of upgrading.

I shall speak of a process of upgrading if the share of middle and up-market products tends to rise (or the share of the down-market goods tends to fall). That is to say, upgrading takes place when products become more comparable or even of better quality than the average intra-EU. On the contrary, a rise in the share of down-market products will be taken as an indication of a downgrading process.

The working hypothesis, by now utilised in a number of empirical works, is that unit values are good proxies for prices and relative prices, in turn, are good proxies for relative qualities (Aiginger 1997). Without entering into the long lasting debate about the use of unit value (price) as proxy of quality (price depends on quality, but quality depends on price too!), I just wish to point out two main reasons why the use of this tool could be relatively more justified in the present study.

First, I use unit values at the most disaggregated level (8-digit of the HS), where industrial products are characterised by precise technical specifications and by consequence should be comparable enough, so that the well known aggregation bias due to bundling together products with different characteristics should in principle be limited to a minimum. The results appear in a more manageable form as they are regrouped into 2-digit categories, 70 groups altogether.

Secondly, unit values in international trade are less liable to be affected by the market behaviour of the exporting countries, all the more so since these EU imports come from countries at a lower level of development, which largely remain price takers.

It goes without saying that unit values remain far from being a perfect tool, so that the reader is invited to handle the results with great care. Other factors may affect unit values, namely the market behaviour of EU importers, trade barriers, both open and hidden, and, last but not least, national costs of production.

As for the first, one could think of the transfer prices applied by multinational enterprises in their imports of intermediate products. Here the direction of the impact seems to be priori indeterminate, following the specific policies followed by the firms, which generally tend to show larger profits where fiscal systems are relatively more indulgent.

As for trade barriers, in principle their end result should be a tendency to push up prices via a restriction of the quantities imported. That should not depend on

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the nature of the good involved. If the commodity (or that particular quality range of it) does not threaten domestic producers and the EU importers cannot exert a monopsonic power, the law of supply and demand should apply. If imports are perceived as a possible threat, export prices might remain high in order to avoid possible retaliations (this is, for instance, the effect of the anti-dumping or the safeguard clauses appended to the Association Agreements). In either case we should expect a slight overestimation of unit values and, by consequence, of the absolute level of the share of high and middle quality goods. However the impact on the process of upgrading would be indeterminate without knowing exactly how the various trade barriers apply in different years to the different products concerned.

Finally, national production costs may affect export unit values. Especially in the case of labour-intensive goods, the lower unit labour costs in the CEECs compared to the average EU costs might depress the *absolute level* of their unit values, which might appear somewhat underestimated. However, this should not affect the *process* of upgrading, which constitutes the core of the present paper.

The period under consideration covers a short time span: eight years for Hungary, Poland, Bulgaria and Romania, five years for Slovenia and the three Baltic countries, and four years for the Czech Republic and Slovakia, since the latter countries did not exist as such beforehand. It was an epoch of swift trade liberalisation, especially after 1992. As a consequence some unit values at the beginning of the period may be relatively overestimated, but less and less so the more we approach the end of the period, when trade liberalisation of industrial goods is almost complete. Altogether, upgrading might be slightly underestimated or, conversely, downgrading overestimated.

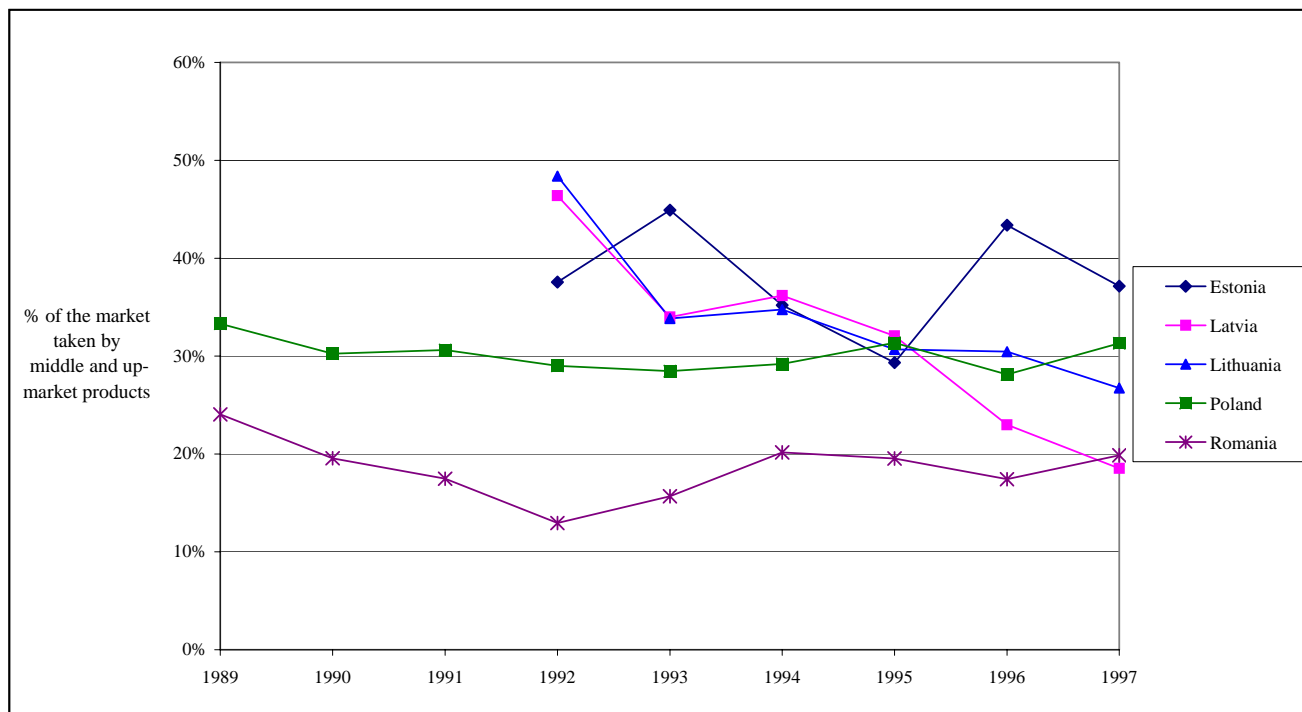
## **2. MAIN TRENDS IN THE QUALITY LEVELS OF EU INDUSTRIAL MANUFACTURED IMPORTS**

Data in Figures 1 and 2 and in Table 1 show the main provisional findings. They can be summarised as follows.

A rather widespread upgrading process seems to have taken place in the majority of *countries*. If we take 1993 as the starting point, so that there exist data for all the countries considered, seven out of ten countries exhibit a process of upgrading as shown in Figures 1 and 2. Only the Baltic countries are left with a worse situation at the end of the period, Estonia only mildly, the other two countries very markedly so.

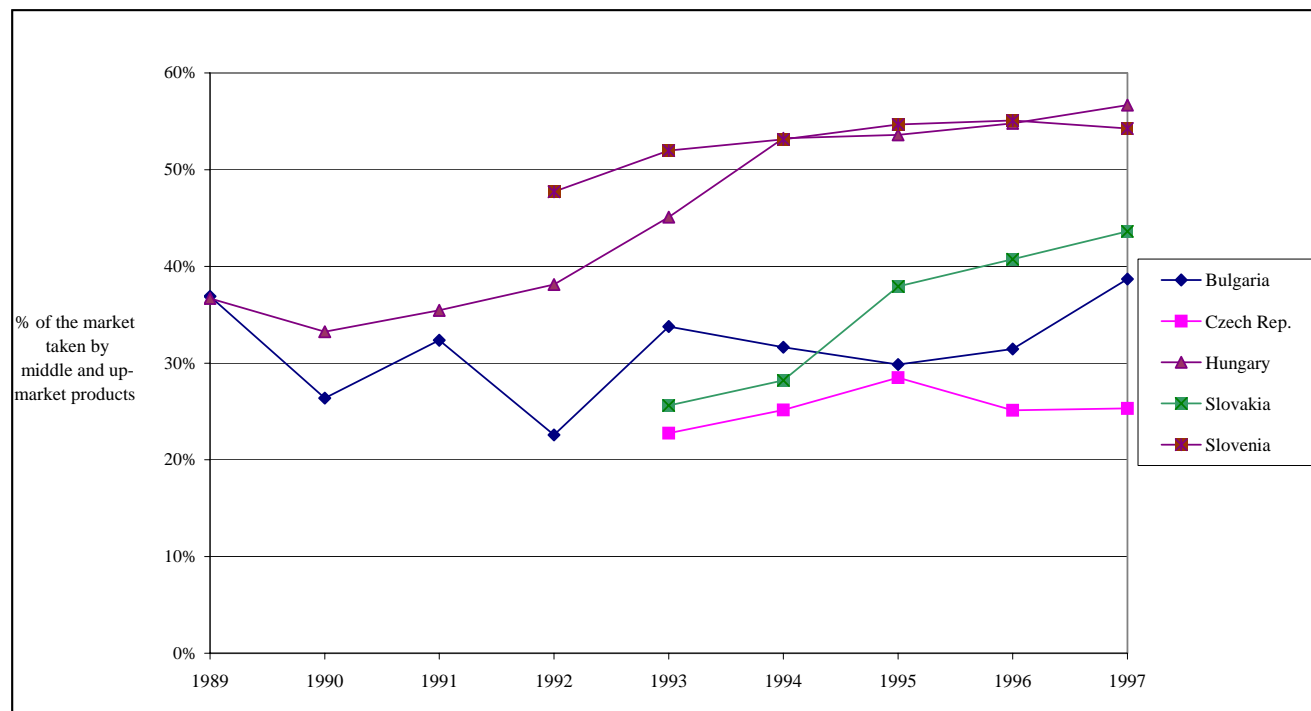
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Figure 1. EU industrial manufactured imports



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Figure 2. EU industrial manufactured imports



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This general picture based on global trends may however conceal different situations.

The most clear cut cases in point appear to have materialised in Hungary and Slovenia. While at the start of the period the majority of exports were down-market, by the end of the period more than half of Hungarian (57 percent) and Slovenian (53 percent) goods compared favourably with intra-EU quality. However the pattern was not the same in the two countries. In Hungary both the shares of upper and middle-market goods tend to rise, while in Slovenia the falling share of up-market goods is more than compensated by the increase in the share of mid-market products.

The trend of Slovenian products appears to be replicated, although at a lower scale, in the case of Slovakia, Bulgaria and Romania. On the contrary, the rise in the share of up-market Czech and Polish goods more than compensates the fall in the share of middle-market products.

On the whole, quality upgrading occurs to a lesser extent for the latter five countries, although more markedly so in the most recent years and especially in the case of Slovakia. The result is that by 1997 less than half of their industrial exports to the EU consist of mid to up-market goods (Slovakia 44, Bulgaria 39, Poland 31, the Czech Republic 25, and Romania 20 percent). Contrary to commonly accepted beliefs, the Czech industrial exports are relatively more concentrated at the lower end of the market.

As for the three laggard countries, 37 percent of Estonian industrial exports compared favourably with intra-EU quality in 1997, as against 27 and 19 percent in Lithuania and in Latvia, respectively.

The different global performance in terms of quality cannot be fully understood without taking into consideration the transformation of the export structure of these countries and the somewhat contrasting processes taking place at a sectoral level. Table 1 sheds considerable light on this issue.

In Hungary the transition was accompanied by a large reshuffling of the export structure to the EU. Machinery, both electrical and non-electrical, have come to dominate exports, with 46 percent of the total (they represented a mere 12 percent in 1989), while vehicles increased from 1 to 6 percent. These are also precisely the sectors where quality upgrading was more noticeable. Suffice it to remember that in 1989 the majority of these exports were low-quality goods, while in 1997 the major part of them exhibited a comparable or better quality *vis à vis* the average intra-EU. As a mirror image, traditional exports like meat (it held first place in 1989 with 10 percent of the total and lost 7 percent points by 1997), clothing, furniture, iron and steel, fuels, chemicals and plastics saw their share reduced. But even here, many industrial sectors still saw an upgrading: out of the ten major 2-digit industrial manufacturing exports, only three (knitted clothing, footwear and aluminium products) showed a tendency to downgrade their quality.



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Although at a lower level, the Slovenian trend is rather similar. The same three product categories dominate the export structure (37 percent of the total) and greatly improved their quality level. They gained the ground lost by more traditional exports like clothing, wood products, iron and steel, rubber and footwear. Here too, although losing importance, most of these products succeeded in upgrading their quality, only clothing (not knitted) seeing a downgrading among the ten major industrial products.

The Czech and Slovak exports to the EU witnessed a similar process of concentration on the three industries cited above (34 and 35 percent of the total, respectively). But upgrading for the Czech industrial products was minor and downgrading did even materialise for electrical machinery. Here too traditional exports lost ground, but with contrasting results in terms of quality levels. Electrical machinery underwent a downgrading process also in the case of Slovakia.

Poland is the one country where the improvement in some sectors, like the three product groups already cited, tends to be matched by the worsening in other sectors. Out of the ten major sectors, quality improved only in six of them, but substantially only in electrical machinery. Let's remember in this context that Poland displays the highest dispersion in the export structure among the countries considered.

The export pattern of the Balkan countries appears to be somewhat different than the previous one. Traditional labour and capital-intensive products take a much larger place. Both electrical and non-electrical machinery fall as a share of Bulgarian exports (vehicles not being significant), while clothing, footwear, iron and steel, fertilisers, copper, inorganic chemicals, all increase their respective share and their quality level. The pattern is even more skewed in the case of Romania, where clothing represents by itself 35 percent of her exports to the EU, with another 11 percent taken by iron and steel and 8 percent by furniture. Here traditional exports mostly undergo a downgrading process, while machinery and vehicles (10 percent of the total) increase both their share and their-quality-level.

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**Table 1.** *Main industrial manufactured goods imported by the EU*

Product category	Country	share in global EU imports (%)	EU weighted trade balance	Quality levels	SPI	OPT imports/ total imports of the same good (%)
84. Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	Hungary	24.3 ↑	- ↓	MD-UP ↑	1.7 ↑	6.5 ↓  7.4 ↑
	Poland	5.2 ↑	+ ↑	DW ↓	0.4 ↑	
	Czech Rep.	11.6 ↑	+ ↓	DW ↑	0.8 ↑	
	Slovenia	10.7 ↑	+ ↑	DW ↑	0.7 ↑	
	Estonia	7.2 ↑	+ ↓	DW ↔	0.5 ↑	
	Slovakia	6.9 ↑	+ ↓	DW ↑	0.5 ↑	
	Bulgaria	5.1 ↓	+ ↓	DW ↑	0.5 ↓	
	Romania	4.6 ↑	+ ↑	DW ↑	0.3 ↑	
	Lithuania	1.6 ↑	+ ↓	DW ↓	0.1 ↑	
85-Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	Hungary	21.4 ↑	+ ↓	DW ↑	1.9 ↑	11.2 ↓ 10.9 ↑ 19.4 ↓  37 ↑ 12.8 ↓  9.2 ↑ 55.6 ↑
	Poland	9.6 ↑	+ ↑	DW ↑	0.8 ↑	
	Czech Rep.	11.8 ↑	+ ↓	DW ↓	1 ↑	
	Slovenia	11.2 ↑	+ ↑	DW ↑	0.98 ↑	
	Estonia	9 ↑	+ ↓	UP ↑	0.8 ↑	
	Slovakia	11.3 ↑	+ ↓	DW ↓	0.9 ↑	
	Bulgaria	2.2 ↓	+ ↑	DW ↓	0.2 ↓	
	Romania	3.7 ↑	+ ↑	DW ↑	0.3 ↑	
	Latvia	1.9 ↑	+ ↑	DW ↓	0.2 ↑	
Lithuania	6.8 ↑	+ ↓	DW ↑	0.6 ↑		
87-Vehicles other than railway or tramway rollingstock, and parts and accessories thereof	Hungary	5.8 ↑	+ ↓	MD-UP ↑	1.3 ↑	48.9 ↑
	Poland	9.2 ↑	+ ↑	DW ↑	2.0 ↑	
	Czech Rep.	13 ↑	+ ↓	DW ↔	2.8 ↑	
	Slovenia	15.5 ↑	+ ↑	MD ↑	3.4 ↑	
	Slovakia	16 ↑	+ ↓	MW ↑	3.5 ↑	
	Romania	1.2 ↓	+ ↑	UP ↑	0.3 ↓	
	Lithuania	1.2 ↑	+ ↑	DW ↓	0.2 ↑	

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**Table 1.** *Main industrial manufactured goods imported by the EU (cont.)*

90-Optical, photographic, cinematographic, measuring, checking, etc. instruments 29-Organic chemicals	Hungary	1.0	↑	+	↓	DW	↔	0.3	↑	8.8	↓
	Czech Rep.	1.4	↑	+	↓	DW	↑	0.4	↑	12.7	↓
	Slovenia	2.5	↑	+	↑	DW	↑	0.7	↑		
	Hungary	1.9	↓	-	↓	MD	↓	0.7	↓		
	Poland	1.4	↔	+	↓	MD	↑	0.5	↓		
	Czech Rep.	1.9	↓	-	↓	MD	↑	0.7	↓		
	Slovakia	2.2	↓	-	↑	DW	↓	0.8	↑		
	Bulgaria	2.5	↓	-	↑	MD	↑	0.9	↓		
	Romania	1.6	↓	-	↑	MD	↓	0.6	↑		
39-Plastics and plastic products	Hungary	3.1	↓	+	↑	MD-UP	↑	1.6	↓	5.1	↑
	Poland	1.8	↑	+	↑	DW	↓	0.9	↑		
	Czech Rep.	3.7	↑	+	↑	DW	↑	1.9	↑	12.4	↑
	Slovenia	2.4	↑	+	↑	DW	↑	1.2	↑		
	Slovakia	3.8	↓	+	↑	MD	↑	1.9	↓		
	Bulgaria	2	↑	+	↓	MD	↑	1	↑		
61-Articles of apparel and clothing accessories, knitted or crocheted	Romania	1.6	↑	+	↑	MD	↑	0.8	↑		
	Hungary	2.5	↑	-	↑	DW	↓	1.2	↓	70.2	↑
	Poland	2.1	↑	-	↓	DW	↑	0.99	↑	63.5	↑
	Czech Rep.	1.3	↓	-	↑	DW	↓	0.6	↓	55.8	↓
	Slovenia	2.3	↓	-	↑	DW	↓	1.1	↓	31.5	↓
	Estonia	2.1	↑	-	↓	DW	↑	0.98	↔	13.3	↑
	Slovakia	2.4	↓	-	↓	DW	↓	1.2	↓	66.5	↑
	Bulgaria	5.6	↑	-	↑	DW	↓	2.6	↑	47.3	↑
	Romania	6.6	↑	-	↓	DW	↓	3.2	↑	51.1	↑
	Latvia	3	↑	-	↑	DW	↓	1.4	↑	46.5	↓
Lithuania	5.4	↑	-	↑	DW	↓	2.6	↑	58.9	↓	

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**Table 1.** *Main industrial manufactured goods imported by the EU (cont.)*

62-Articles of apparel and clothing accessories, not knitted or crocheted	Hungary	5	↓	-	↑	DW	↑	1.6	↓	74.4	↓
	Poland	9.5	↑	-	↑	DW	↓	3	↓	74.7	↓
	Czech Rep.	2.5	↓	-	↑	DW	↓	0.8	↓	61	↓
	Slovenia	7.1	↓	-	↑	UP-MD	↓	2.2	↓	50.6	↓
	Estonia	7.5	↑	-	↓	DW	↑	2.3	↑	15.6	↓
	Slovakia	7	↓	-	↓	DW	↓	2.1	↓	64.7	↓
	Bulgaria	14.5	↑	-	↓	DW	↑	4.2	↑	60.2	↓
	Romania	28.5	↑	-	↓	DW	↓	8.3	↑	73.2	↑
	Latvia	7.3	↑	-	↑	DW	↔	2.1	↑	55.3	↓
	Lithuania	18.4	↑	-	↑	DW	↓	5.6	↑	71.2	↓
63-Other made up textile articles; sets; worn clothing and worn textile articles; rags	Poland	1.2	↑	-	↓	DW	↑	2.6	↑	38.5	↑
	Czech Rep.	1.1	↓	-	↑	DW	↓	2.4	↓	33.3	↑
	Estonia	2.0	↑	-	↓	DW	↑	4.6	↑	10.1	↑
	Latvia	1.0	↑	-	↑	DW	↓	2.4	↑		
	Lithuania	1.3	↑	-	↓	DW	↑	2.9	↑		
40-Rubber and articles thereof	Hungary	1.1	↓	+	↑	DW	↓	1.1	↓		
	Poland	1.3	↑	+	↓	DW	↑	1.5	↑		
	Czech Rep.	2.2	↑	-	↑	DW	↔	2.4	↑		
	Slovenia	2.2	↓	-	↑	DW	↑	2.3	↓		
	Slovakia	1.5	↑	-	↓	DW	↑	1.7	↑		
	Bulgaria	1.0	↓	-	↑	DW	↓	1.1	↓		
44-Wood and articles of wood; wood charcoal	Hungary	2.0	↓	-	↑	DW	↓	1.3	↑		
	Poland	5.2	↑	-	↑	DW	↓	3.3	↑		
	Czech Rep.	4.4	↑	-	↑	DW	↓	2.8	↑		
	Slovenia	4.4	↓	-	↑	MD	↑	2.8	↑		
	Estonia	19.4	↑	-	↑	DW	↑	12.2	↑		
	Slovakia	3.6	↑	-	↓	DW	↓	2.3	↑		
	Bulgaria	2.7	↑	-	↑	DW	↓	1.7	↑		
	Romania	2.1	↓	-	↓	DW	↓	1.3	↑		
	Latvia	38.2	↑	-	↑	DW	↑	24	↑		
	Lithuania	13.3	↓	-	↓	DW	↓	8.3	↑		

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**Table 1.** *Main industrial manufactured goods imported by the EU (cont.)*

48-Paper and paperboard; articles of paper pulp, paper or paperboard	Poland	1.7	↑	+	↑	DW	↑	2.0	↑		
	Czech Rep.	1.3	↓	+	↑	DW	↑	1.5	↑		
	Slovenia	3.2	↓	-	↑	MD	↑	3.7	↑		
	Slovakia	2.7	↓	+	↑	DW	↑	3.1	↑		
64-Footwear, gaiters and the like; parts of such articles	Hungary	2.4	↓	-	↑	MD-UP	↓	2.3	↓	25.5	↓
	Czech Rep.	1.1	↓	-	↑	DW	↓	1	↓	17.1	↓
	Slovenia	1.7	↓	-	↑	MD-UP	↑	1.6	↓	10.9	↓
	Estonia	1.4	↑	+	↑	DW	↓	1.4	↑		
	Slovakia	3.2	↑	-	↑	DW	↑	3.1	↑	11.6	↓
	Bulgaria	5.3	↑	-	↑	DW	↑	5.2	↑	31.1	↑
	Romania	11	↑	-	↑	DW	↓	10.7	↑	19.2	↓
94-Furniture; medical and surgical furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified; illuminated signs, illuminated name-plates and the like; prefabricated buildings	Hungary	2.1	↓	-	↑	DW	↑	1.8	↓	5.2	↓
	Poland	8.8	↑	-	↑	DW	↑	7.5	↑	6.6	↓
	Czech Rep.	4.7	↓	-	↑	DW	↑	4.1	↓		
	Slovenia	8.6	↑	-	↑	UP	↑	7.4	↑		
	Estonia	5.9	↑	-	↑	DW	↑	5.1	↑		
	Slovakia	3.0	↓	-	↓	DW	↑	2.6	↓		
	Bulgaria	1.4	↓	-	↓	DW	↑	1.2	↓		
	Romania	7.5	↓	-	↓	DW	↑	6.6	↓		
	Latvia	2.3	↑	+	↑	DW	↑	1.9	↑		
	Lithuania	2.5	↑	+	↑	DW	↑	2.2	↑		
72-Iron and steel	Hungary	2.0	↓	-	↑	MD	↑	1.5	↓		
	Poland	3.4	↓	-	↑	DW	↔	2.5	↓		
	Czech Rep.	4.6	↓	-	↑	DW	↓	3.4	↓		
	Slovenia	2.9	↑	+	↑	MD	↑	2.2	↑		
	Estonia	3.9	↑	-	↑	MD	↑	2.9	↑		
	Slovakia	8.3	↓	-	↓	MD	↑	6.3	↓		
	Bulgaria	13	↑	-	↑	MD	↑	10.3	↑		
	Romania	7.8	↑	-	↑	DW	↓	6.1	↑		
	Latvia	3.3	↑	-	↓	MD	↑	2.5	↑		
	Lithuania	3.4	↑	-	↓	MD	↑	2.6	↑		

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**Table 1. Main industrial manufactured goods imported by the EU (cont.)**

73-Articles of iron or steel	Hungary	2.1	↓	+	↑	DW	↑	1.8	↓
	Poland	4.9	↑	-	↑	DW	↑	4.3	↑
	Czech Rep.	6.1	↑	-	↑	DW	↔	5.4	↑
	Slovenia	2.2	↓	+	↑	UP-MD	↑	2.0	↓
	Estonia	2.3	↑	+	↑	DW	↔	2.0	↑
	Slovakia	4.3	↓	-	↓	DW	↓	3.6	↓
	Bulgaria	1.3	↑	+	↓	DW	↑	1.1	↓
	Romania	2.8	↑	-	↓	DW	↑	2.4	↑
76-Aluminium and articles thereof	Hungary	3.0	↑	-	↑	MD	↓	2.4	↑
	Poland	1.0	↑	+	↓	MD	↑	0.8	↑
	Czech Rep.	1.3	↑	+	↓	MD	↑	1.1	↑
	Slovenia	4.1	↑	-	↑	MD	↑	3.3	↑
	Slovakia	4.1	↑	-	↑	MD	↑	3.3	↑
	Romania	4.0	↓	-	↓	MD	↓	3.3	↓

*Notes :* Data refer to 1997. I report only the 2-digit products which represent a share =1% in EU imports from at least three countries.

SPI = specialisation index

OPT = Outward Processing Trade. The share of OPT in total imports is shown only when =5%

Arrows indicate change from the beginning of the period to 1997: ? rising, ? falling, ? stable

*Source :* my calculations from Eurostat, *Comext*.

Finally the Baltic countries exhibit a rather different export pattern, with a much larger place still reserved to wood products and mineral fuels (which are however considerably less important than they used to be only four years earlier). Nevertheless, also in this case electrical machinery has gained considerable ground in a few years, while quality improved only in many important Estonian industries, but worsened in the majority of the other two countries' industries.

Can we detect any generalised pattern *in terms of the different industries*? One general feature seems to emerge from a more careful analysis of quality trends combined with other trade indicators. Up(down)grading seems to take place in cases both of increasing and of falling specialisation, so that no systematic relation seems to be at work between the two variables as shown in Table 1.

Three sectors outperformed the others in the 1990s: electrical machinery, non-electrical machinery and vehicles and parts. Barring Bulgarian machinery and Romanian and Estonian vehicles, they have seen in all countries a rise both of their share in total exports to the EU and of their specialisation index. While at the beginning of the period no East European country was specialised in them, the situation had largely changed by 1997.

As for machinery, Hungary had acquired a specialisation in both categories, the Czech Republic in electrical machinery and all the other countries, at the exception of Bulgaria, had seen a fall in their de-specialisation.

Five countries (Hungary, Slovenia, Slovakia, the Czech Republic and Poland) appear to be increasingly specialised in vehicles and parts, while Bulgaria, Estonia and Latvia do not export significant amounts of the same.

Altogether, then, the CEECs' specialisation has risen *vis à vis* the rest of the extra-EU world. In other words these countries have become in the 1990s relatively more preferred sources of these goods, the trade balance remaining largely positive for the EU.

The quality level as compared to the EU is not however similar for the different countries. Only Hungarian non-electrical goods, Estonian electrical machinery and Hungarian, Slovenian, Slovak and Romanian vehicles compete on medium or higher quality ranges in the EU market. The rest compete in the lower end of the market. In such instances then these countries may present themselves as competitors on the same market. A more detailed analysis of the 8-digit data would reveal the individual products on which they compete with each other.

There are three other high tech sectors where a fair amount of upgrading has taken place: organic chemicals, where these countries compete prevalingly in middle market products, but seem to be less and less specialised; plastics, where Hungarian and Slovak specialisation is falling, but concentrates on middle-up market, while there is a rising specialisation of the other countries although still predominantly on low to medium quality goods; and finally precision instruments, where Hungary, Slovenia and the Czech Republic are mostly concentrated on low quality goods with a fall in their despecialisation. Here too the trade balance remains in the majority of cases negative for the East European countries.

The other side of the coin is represented by the more traditional labour or capital-intensive export sectors. Although they still remain important strongholds of the CEECs' exports, more often than not they show a generalised tendency to fall in importance, at the exception of wood and paper articles, for the Central

European countries, while their importance tends to rise both for the Balkan and the Baltic countries.

The great majority of labour intensive sectors—textiles, clothing, footwear, furniture, rubber, wood, paper, - tends to concentrate on down market products: the few exceptions are represented by Hungarian footwear and by all Slovenian products excluding rubber, which are predominantly positioned in the mid or up market. Here trends in quality levels present divergent patterns. The definite upgrading taking place in furniture and paper is not replicated in the other sectors. Such upgrading seems to have materialised only for Hungarian, Bulgarian and Estonian clothing not knitted, for Polish, Estonian and Lithuanian clothing knitted and other made up textiles, for Slovenian, Slovak and Bulgarian footwear, Slovenian and Slovak rubber, Slovenian, Estonian, Latvian and Lithuanian wood, for Polish and Slovak rubber. In all these labour intensive sectors the EU weighted trade balance is still negative, but shows a generalised tendency to improve.

Finally traditional more capital-intensive sectors like steel and aluminium show a mixed pattern. In steel, the Czech Republic, Poland and Romania compete in the down market, while the others in the mid market; downgrading materialises only for Czech and Romanian products, while SPIs fall for Hungary, Poland, Slovakia and the Czech Republic. In articles of steel, low quality prevails, except Slovenian upmarket products, but no downgrading occurs at the exception of Slovak goods; here Hungary, Slovenia, Slovakia and Bulgaria decrease their specialisation. Finally in aluminium the middle market is the norm and only Hungarian and Romanian goods undergo a downgrading process, while all the countries, except Romania, increase their specialisation. In the capital-intensive sectors too some competition may take place among the East European countries, as they sell to the EU market goods of similar quality. The EU trade balance in these sectors reveals a mixed picture, although the negative signs slightly prevail. As in the previous case, though, the EU balance shows a general tendency to improve.

### **3. UPGRADING, FDI AND OPT**

As evidenced by the previous analysis, a generalised pattern of quality upgrading seems to have taken place in EU imports of industrial manufactures from the East European countries. Whether or not these provisional results can be taken as an indication of an improvement of the respective domestic industrial structures remains open to question.

The basic reason lies in the often-tight links between these trade flows and the strategic choices made by EU firms. In other words, quite a few of the products which have upgraded their quality represent a segment of the value chains controlled by EU firms. This applies not only in the case of intermediate products, but also at the assembly stage of the process. International links may be of disparate nature. Both intermediate and final goods in the vehicles and in the non electrical machinery sectors are often the result of local affiliates of EU (and other) multinational enterprises, while in electrical machinery and footwear outward processing traffic (OPT) appears to be present as well, all the more so in the clothing sector. Other forms of international cooperation may exist in different sectors.



In all these cases, when upgrading has materialised, it has been going hand in hand with the international links cited above. This confirms well-established ideas according to which FDI and other forms of international involvement carry with them superior technology, know-how, management and so on. However we do not know a priori what would happen if those links were severed. It should be stressed that this is not a remote possibility even in the case of equity investment, as the closing down of car factories in Western Europe may remind us. In the OPT case, moreover, since no equity is involved, such withdrawals appear all the more feasible without substantial losses. The recent experience of some European countries located more eastward (and with lower labour costs) partially substituting more traditional EU OPT partners in the clothing sector is another case in point.

So the basic question is whether local firms could stand up to international competition and still be able to sell in the EU market once these equity or non-equity forms of international relocation should come to an end. Pilot surveys of an admittedly small number of East European clothing firms seem to lend support to the hypothesis of some difficulties in turning previous OPT relationships into autonomous production and sale under their own brand.

Following a recent study by the author on the structural changes of the textile and clothing industry in three East European countries (Graziani, 1999), our present results in terms of unit values for the various industries may shed additional light on the issue at stake. If we make a separate analysis for OPT and non OPT import flows, we find out that OPT values may be much higher than non-OPT unit values. These are not isolated cases. EU OPT clothing (not knitted) and footwear imports from Slovenia are predominantly upmarket products, while the corresponding non OPT flows are prevalingly mid market. The same applies to footwear imports from the Czech Republic and to electrical machinery imports from Poland and Estonia. In dynamic terms, upgrading may occur in OPT flows, while not materialising in the corresponding non OPT flows. Such is the case of clothing (not knitted) imports from Hungary, of plastics and precision instruments from the Czech Republic, of clothing and electrical machinery from Estonia. The other side of the coin is that downgrading may accompany a fall in the importance of OPT, as shown by the experience of Hungarian precision instruments. In all these cases the lower quality level and/or dynamics of the quality level of non-OPT imports casts some doubts on the possibilities of transforming OPT operations into autonomous ones, although some technological, managerial and organisational spillovers might have inevitably materialised. If all this is true, also the possible threat represented by those products in the different quality levels of the EU market should be reconsidered with greater care.

#### **4. CONCLUDING REMARKS**

The use of unit values as proxies for quality has allowed us to shed considerable light on one aspect of international trade, which is not generally highlighted in the literature. Certainly, the issue of up or downgrading should be studied in conjunction with detailed industry studies, if we wish to obtain more meaningful results. Nevertheless our provisional findings retain some interesting features.

There has been a generalised pattern of upgrading, although many weak points exist in various industries in different countries. In many of the upgrading industries, and most notably electrical and non-electrical machinery and vehicles, several CEECs are becoming increasingly specialised as compared to the rest of the extra-EU world. Whether or not this represents a threat for our domestic industry cannot be fully answered without taking into consideration: a) the ties that those flows retain with the EU firms' strategies; and b) the nature of trade (inter-industry, intra-industry with horizontal differentiation and intra-industry with vertical differentiation). Meanwhile, however, the analysis in terms of quality upgrading allows us to identify the dynamics of the different quality levels where East European products mostly compete on the EU market and appears to be a valuable tool for similar types of undertakings. On the whole, the analysis has shown that the five countries compete in various quality levels of the EU market, so that the pressure should not be excessive. A certain competitive pressure might materialise in a few downmarket products indicated in the paper. One question, which could be raised in this context, is how far the process of regionalisation and international fragmentation of production has had an impact on upgrading. The progressive reorientation of trade toward geographically proximate countries and regions is a well-known worldwide phenomenon (Graziani, 1998a, 2001). The polarisation of East European trade around the EU cluster and the process of upgrading has taken place within a context of progressive trade liberalisation: in fact the improvement in quality levels materialised when trade barriers started to fall. In this respect, then, their experience did not follow that of many developing countries, which upgraded their products in order to weaken the restrictive effect of quantitative barriers, namely in the textile and clothing sector.

Within the general upgrading process we found that two countries (Hungary and Slovenia) have fared better than the others in closing the gap with the average intra-EU. Is there any general explanation for such a distinct performance? A few cursory remarks may be of some help. My feeling is that traditional explanatory variables may be valuable in explaining the general trend, but are not sufficient to clarify the different performances. Let me offer a few examples. The relatively higher Slovenian and Hungarian GDP per capita could explain their success, but then one could not understand the relatively weaker performance of the Czech industrial exports, given that its per capita GDP is on a par with Hungary or even above it.

More specific variables are traditionally found in human capital indicators. In particular, secondary education ratios are considered to have a very important impact on industrial performance. For most of these countries these ratios, as well as education expenses as a percentage of GDP, compare very favourably with the EU average, so that they might possibly be at the basis of the general trend. But again they do not seem to be able to explain the differences, since they appear to be rather similar and to have moved in a parallel way for the East European countries. Paradoxically, only university ratios, which generally are considered less important for this specific issue, appear to show a closer relation to the ranking seen above. Finally the role of FDI and OPT, as already highlighted in the previous paragraph, go a long way in explaining the outstanding Hungarian performance, but do not succeed in explaining the much weaker performance of Poland, which has received a considerable amount of

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FDI too. If we take per capita FDI, then Slovenian success *vis à vis* other countries remains unexplained.

Given that only a study of the basic fundamentals of each country could offer a better clue to the issue, there exists nevertheless one factor that should be considered more adequately. That is the extent of industrial restructuring that has actually taken place during the transition period. According to various indicators that can be constructed, Hungary and Slovenia seem to be much further along this path than other countries. This is a line of research worth being taken up in the future.

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