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Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany
Telefon: 040/428 34 355
Telefax: 040/428 34 451
e-mail: hwwa@hwwa.de
Internet: <http://www.hwwa.de>

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Giovanni Graziani *

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* Department of International Economics, Finance and Law Università' di Parma

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Giovanni Graziani
Department of International Economics, Finance and Law
Universita' di Parma
43100 Parma, Italy
E-mail: giovanni.graziani@unipr.it

THE IMPACT OF TRADE WITH THE CEECs ON EU LABOUR
MARKET: WHAT KIND OF SKILL BIAS ?

Giovanni Graziani

Department of International Economics, Finance and Law

Universita' di Parma

e-mail: giovanni.graziani@unipr.it

INTRODUCTION AND PURPOSE

Expansion of trade between the EU and the CEECs has linked the respective labour markets more closely together.

According to the dominant trade theory, when a developed country trades with a less developed one, unskilled labour of the former should tend to be hurt by reduced domestic production of unskilled labour intensive import substitutes or, more precisely, by increased net imports which would push the labour demand relatively more toward skilled than toward unskilled labour.

If wages were flexible, relative wages would be skewed in favour of skilled labour. However, according to most analysts, in the EU wider wage differences tend to be broadly resisted due to the power of the labour unions, to minimum wage or income legislations and to various other institutional forces that reduce wage flexibility. In this situation, the pressure for wider skill differences should rather emerge as shortages of skilled labour and surpluses of unskilled labour. In other words, when relative wages are rigid, a rise in the relative demand for skilled labour tends to cause a shortage of skilled labour and a surplus of unskilled labour. So, according to theory, this type of trade should hurt unskilled workers in the EU, pushing them out of jobs, while the skilled workers would see their position bettered.

This type of analysis and the fears that go with it find fertile ground in the general evolution of EU industrial employment in the last decade. Official data

show that employment growth in industry has been rather stagnant in the period under consideration, especially in comparison to the more dynamic evolution of the service sector. The result has been that manufacturing employment as a percentage of total employment fell from 31.0 at the beginning of the period to roughly 25% by the new century. Moreover, industry has been facing a period of significant structural change, increasing its contribution to the unemployed cohorts. Although undistinguishable by sectors, unemployment rates were still at almost 8% on average in the EU at that date. As for the types of labour, recent studies show that a large part of the new unemployment stems from unskilled labour, while employment expands more for the highly skilled than for the low-skilled manufacturing sectors. One should further add the continuous process of skill upgrading in the EU industry: the share of the low-skilled in the EU labour force has been dropping, while the share of both medium- and high-skilled workers has been rising over the last five-year period.

Are the theory and these fears confirmed by the recent history of trade liberalization between the EU and the CEECs? What categories of workers have really been affected? Can we safely affirm that the EU unskilled labour has unequivocally been hurt, while its skilled counterpart has only benefited from this type of trade?

The purpose of the present study is to analyse the impact of changing patterns of EU trade with the CEECs upon the domestic labour demand in EU manufacturing industrial sectors, by estimating the potential employment creation/displacement effects of such trade flows. The CEECs considered here are not only the eight countries about to become EU members in 2004, but also the other two – Bulgaria and Romania – that will very likely gain entry over the following years.

The period under exam - from 1993 to 2002 - saw the trade liberalization content of the association agreements with the CEECs being progressively applied. Its impact could be an indication of what might happen in the medium term, after the accession of the CEECs and the elimination of the anti-dumping and the safeguard clauses, given that the time span is not long enough to alter significantly the structure of reciprocal trade flows.

Although relevant by itself, the present study should also be significant for such an issue as the evolution of official immigration from the CEECs in the medium term. The reason is that the accession treaties do not imply an immediate full liberalization of migration flows, which should take place roughly at the end of the decade. As a consequence, official migrations will very likely continue to occur within the same present restricted framework, i.e. through bilateral government agreements or other restricting forms of labour flows. Since the latter tend to be mainly determined by the demand of labour in the EU economies, a study of the medium term trade impact on demand conditions in the EU labour market seems to be of some interest in the present context.

METHODOLOGICAL APPROACH

Our analytical technique is a simple version of the ‘factor content of trade’ methodology. We first calculate the employment content of domestic production in each industrial sector and then apply these labour coefficients to trade flows. In other words, we estimate how many persons are required to produce the goods exported to the CEECs and how many persons would have been required to produce domestically the goods belonging to the same category that are imported from the CEECs. Contrary to most analysts who have previously applied this kind of methodology, our approach tends to be more dynamic, since our employment coefficients, as well as the skill ratios, do not refer to one particular year or to an average over the period, but are calculated on a year-by-year basis and as such applied to annual trade data. In this respect, productivity changes and skill upgrading over the period are also taken into consideration.

Domestic output and employment data are matched with trade data through an appropriate concordance between the 3-digit level of the NACE classification of industrial sectors and the 8-digit level of the CN classification of products imported/exported by the EU from/to the CEECs. The data are then duly re-aggregated into 22 more manageable 2-digit NACE sectors. All the data come from Eurostat. When data were lacking or suppressed for reasons of confidentiality in the EU database, they were either taken from other sources or estimated by the author.

Similarly to other methods already utilised elsewhere, our procedure rests on some strong assumptions.

Contrary to most long-term partial and general equilibrium models, that assume long-term flexible wages and full employment, our implicit assumptions are short-medium term relatively fixed wages and unemployment.

Within reasonably large industrial categories, EU industrial imports are considered as competitive with domestic goods, that is to say we assume that imports are perfect substitutes with domestic output. Previous detailed studies by the author at the 8 digit level of the CN classification reveal that the EU tends to import from the CEECs mostly the same categories of industrial goods that it exports in exchange, the 'only imports' category (one way trade) being very limited - generally intensive in domestic resources. Even in this case, the fact that these goods are imported from the CEECs without an export counterpart does not necessarily imply that they are not produced anymore in the EU and sold elsewhere in the world.

Furthermore, since our purpose is to study the impact on manufacturing industry and not on the whole economy, we exclusively focus on the direct employment effects, that is to say we consider only the domestic labour required for producing the individual industrial good without considering the labour used up in the production of the materials and components needed to obtain the final product. Although the majority of indirect labour belongs to services and raw materials, so far as components belong to the manufacturing sector, this is not included in the analysis, thus underestimating the final results.

The basic assumption here is that a given rise in imports (exports) would displace (generate) a proportionate number of jobs. The effect of trade is then calculated as the difference in labour content between additional exports and imports. Our procedure rests then on a kind of trade multiplier, i.e. on calculating the employment effect of additional net exports, defined as additional exports minus additional imports of manufactured goods. In other words we estimate changes in employment as a function of the changes in the trade balance. The use of this Keynesian kind of multiplier that is short-run in its very nature appears to be justified when seeking to analyse historical year-by-year effects of trade

liberalization. Many previous studies have quantified the employment effects of a hypothetical increase in trade that leaves the trade balance unchanged. However, this kind of procedure seems to be justifiable only when one wishes to simulate the potential long-term impact of some trade flows. On the other hand, actual surpluses and deficits appear to be important in so far as one tries to quantify the trade impact on labour demand derived from historical trade flows.

It should be emphasized that through this analytical technique - in fact through most of the methodologies which have been applied in the past - one cannot estimate the actual numbers of job created or destroyed, as some analysts tend to imply, but rather the employment losses netted out of the employment gains which would have occurred *ceteris paribus*, i.e. keeping other factors, like domestic demand and trade with the rest of the world, as fixed. What we obtain is then the potential trade impact on net labour demand or, in other words, the size of the potential trade-induced demand shift in the EU labour market. As far as the actual impact on jobs, trade may be automatically beneficial, whenever exports keep growing, supporting a corresponding rise in employment levels, even in the presence of a rising trade deficit.

Our analysis is being conducted not only for industry as a whole, but also and more particularly for 22 different industrial sectors corresponding to the 2 digit level of the NACE classification, thus allowing to highlight where the net negative effects did take place and where, on the contrary, net positive results occurred instead.

Finally our approach differs from several previous studies that have taken into consideration only one global category of labour or at most two types, skilled and unskilled. On the basis of the International Standard Classification of Occupations of the International Labour Office, ISCO 88, a distinction is being made among the different skill types of labour for each of the 22 industrial sectors, finally aggregating them into four more manageable broad categories, the white-collar and the blue-collar labour each being subdivided into the skilled and unskilled categories. Following the OECD, the white-collar high-skill includes senior officials, managers, professionals and technicians, while the white-collar low-skill regroups clerks, service workers shop and sales workers. The blue-collar high-skill workers are represented essentially by craft and related trades workers; finally the

blue-collar low-skill workers include plant and machine operators and assemblers plus elementary occupations.

THE ESTIMATED IMPACT OF TRADE WITH THE CEECs ON EU LABOUR MARKET

Quite in line with a priori expectations, the estimated global net direct employment effects of EU trade changes with the CEECs in 1994-2002 are rather small and positive, altogether labour demand having been favourably affected for less than fifteen thousand persons, corresponding to far less than one per cent of total industrial employment (TABLE 1).

TABLE 1 - Total net impact of trade with the CEECs on the EU labour market by types of skill, number of employees 1994-2002

	NACE	white-collar high-skill	white-collar low-skill	blue-collar high-skill	blue-collar low-skill	total
Manufacture of food products and beverages	15	838	940	1336	1786	4900
Manufacture of tobacco products	16	31	25	44	61	161
Manufacture of textiles	17	3306	2815	6392	10304	22817
Manufacture of wearing apparel; dressing and dyeing of fur	18	-4640	-3372	-21864	-11052	-40928
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	19	133	116	783	356	1388
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	20	-3004	-2056	-11457	-7088	-23605
Manufacture of pulp, paper and paper products	21	1871	1141	1309	5016	9337
Publishing, printing and reproduction of recorded media	22	35	51	106	48	241
Manufacture of coke, refined petroleum products and nuclear fuel	23	-492	-164	-110	-322	-1088
Manufacture of chemicals and chemical products	24	15091	5576	3167	12598	36432
Manufacture of rubber and plastic products	25	2827	1515	1972	7076	13391
Manufacture of other non-metallic mineral products	26	884	518	1803	1931	5136
Manufacture of basic metals	27	-155	68	-265	-563	-914
Manufacture of fabricated metal products, except machinery and equipment	28	1695	973	4726	2566	9960
Manufacture of machinery and equipment n.e.c.	29	2504	1377	5128	1737	10746
Manufacture of office machinery and computers	30	304	101	69	26	500
Manufacture of electrical machinery and apparatus n.e.c.	31	1512	565	1794	1573	5444
Manufacture of radio, television and communication equipment and apparatus	32	-2918	-707	-1221	-1497	-6343
Manufacture of medical, precision and optical instruments, watches and clocks	33	3362	1058	2638	1568	8625
Manufacture of motor vehicles, trailers and semi-trailers	34	-938	-342	-1081	-1092	-3452
Manufacture of other transport equipment	35	118	22	138	113	391
Manufacture of furniture; manufacturing n.e.c.	36	-5754	-4319	-19803	-8964	-38839
TOTAL MANUFACTURES		16611	5903	-24395	16181	14300

As a whole then and on a cumulative basis, trade with the CEECs has been beneficial to our labour market, the positive effects more than offsetting the

negative ones. Nonetheless it should be remembered that trade affects the labour markets each year, each sector, each category of workers and each country or region in a different way. Leaving the latter question to a later stage, let's now start considering the time dimension.

Chart 1 illustrates how trade with the CEECs has globally affected the EU labour markets each year. It shows clearly that the net positive results are mostly concentrated on three years at the beginning of the period, while the negative results are spread through five years and mostly concentrated at the end of the same period. Thus, the closing stages of the nineties and the opening of the new century saw a worsening of the situation.

If the employment effects are disaggregated by skill requirements and we use the white-collar/blue-collar distinction to proxy for the skilled-unskilled distinction, the results suggest that on the whole skilled workers appear to have been positively affected, while the contrary seems to be true for the unskilled labour force (TABLE 1). However, this distinction may be rather crude since many workers belonging to the white-collar labour force are low-skilled, like clerks and shop workers, while correspondingly several blue-collar workers are rather skilled, like craft and related trades workers. If we then make a further subdivision into the four segments scheme illustrated in the previous section, it is the blue-collar high-skilled labour that appears to be the only losing category, all the other three having received benefits from this type of trade, the white-collar high-skill coming first (Chart. 2).

These are however cumulative and general welfare calculations that do not take into account that each year pressures on labour demand have been working both ways in each industrial sector: particularly in this case the gaining sectors cannot easily redistribute their gains to the losing sectors, since what we are dealing with here are pressures on labour demand, which is very much characterized by sectoral specifics.

What are then the losing and the gaining sectors?

If we investigate the 22 industrial sectors at the 2-digit level of NACE classification, the first remark to be made is that, with a few exceptions in particular years, all sectors of EU industrial exports to the CEECs show a rather steady increase during the period under consideration. That is to say, in most cases

each year exports have supported at least the same level of employment as the previous year and in general a rising amount. Overall, anyway, the export values of the end period were extremely larger than the ones at its beginning.

Therefore EU commercial relations with the CEECs do not appear to have caused directly actual losses of jobs, even in the presence of increasing imports and negative trade balances. In fact, and more accurately, any eventual loss incurred into at a certain quality level inside the same sectors and/or for different types of products at the same quality level has been more than offset by gains at another quality level within the same category of products or in different types of goods belonging to the same quality level. However, this reasoning may only be deducted from the type of intra-industry trade characterising EU-CEECs relations, but cannot be calculated precisely, since no EU dataset is available on production and employment beyond the 3 digit NACE classification. Furthermore, it should be pointed out that these commercial relations might of course have induced some trade diversion from other partners in the world, a question that is not treated in the present analysis.

Although no actual job losses may have occurred, even so negative pressures on potential labour demand might have materialised. What we are talking about is the negative impact on labour demand compared to a hypothetical situation in which the trade balance had remained unaltered vis-à-vis the previous year. The negative numbers then represent a cost in potential jobs, i.e. the number of persons that would have been employed to produce those goods domestically if they were not imported. In other words, it is the cost of non-creation of the corresponding jobs.

When these negative employment effects are disaggregated by industrial sectors, it appears that cumulative net losses of potential labour demand materialised in 7 out of the 22 sectors considered, wearing apparel ranking first, its net cumulative negative impact through the whole period being equal to almost 4% of the employment in the sector (Chart 3). This cumulative impact is the sum of the results for nine years: obviously, each year the impact is but a much smaller share of the respective employment level. Chart 4 shows that the sector incurred into slight positive results only in one out of the nine years under consideration. Two other sectors – wood and miscellaneous manufactures - follow suit, their negative impact amounting to more than 2% of their respective employment levels (Chart 3). Here

too positive results occur very rarely through the period, twice for wood and never for miscellaneous manufactures (Chart. 4).

Altogether these three sectors represent 90% of the total cumulative net negative impact over the period 1994-2002 (Chart 5). If one measures the skill intensity of production by the ratio of white-collar workers to total workers in each manufacturing sector, one can immediately see that these three sectors are also the least skill-intensive in the manufacturing industry, coming at the low end of the ranking, with a ratio of white-collars of between 22% and 26% of employment (TABLE 2). Just for comparison, the most skill-intensive industries - like office machinery and chemicals - have a labour force in which white-collars represent between 59% and 68% of employment (ibid). Besides being low-skill intensive, these three losing sectors are also low or medium-low technology sectors, if technological intensity is measured by direct and indirect R&D intensity, and are further characterised by relatively fragmented markets, with weak entrance costs and limited scale economies.

TABLE 2 - Skill intensity and technological intensity of EU industrial sectors

	NACE	Skill intensity (share of white-collar in total labour force)	Technological intensity (direct and indirect R&D intensity)
Manufacture of office machinery and computers	30	67,92	High-technology
Manufacture of coke, refined petroleum products and nuclear fuel	23	60,27	Medium-low technology
Manufacture of chemicals and chemical products	24	58,93	Medium-high technology
Manufacture of radio, television and communication equipment and apparatus	32	54,64	High-technology
Publishing, printing and reproduction of recorded media	22	54,22	Low-technology
Manufacture of medical, precision and optical instruments, watches and clocks	33	51,85	Medium-high technology
Manufacture of electrical machinery and apparatus n.e.c.	31	45,52	Medium-high technology
Manufacture of machinery and equipment n.e.c.	29	42,54	Medium-high technology
Manufacture of other transport equipment	35	42,34	Medium-high technology
Manufacture of tobacco products	16	40,30	Low-technology
Manufacture of pulp, paper and paper products	21	37,34	Low-technology
Manufacture of food products and beverages	15	36,55	Low-technology
Manufacture of motor vehicles, trailers and semi-trailers	34	34,37	Medium-high technology
Manufacture of rubber and plastic products	25	33,86	Medium-low technology
Manufacture of other non-metallic mineral products	26	30,30	Medium-low technology
Manufacture of basic metals	27	30,15	Medium-low technology
Manufacture of fabricated metal products, except machinery and equipment	28	28,55	Medium-low technology
Manufacture of textiles	17	27,45	Low-technology
Manufacture of furniture; manufacturing n.e.c.	36	25,99	Low-technology
Manufacture of wearing apparel; dressing and dyeing of fur	18	23,37	Low-technology
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	20	21,82	Low-technology
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	19	20,80	Low-technology

In all these three losing sectors, blue-collar workers have received a negative impact between three and five times larger than their white-collar counterparts in terms of numbers of persons employed (Chart 6). These findings seem to lend support to received ideas about the trade impact. However, contrary to widespread current beliefs, our analysis shows that, within the blue-collar category, the higher skilled have been relatively more affected than the lower skilled (the same is true, by the way, with regard to the white-collar workers) (ibid.).

The remaining 10% of the total negative impact is distributed among four other sectors, two of them being high or medium-technology sectors – communication equipment and motor vehicles – and two medium-low technology sectors - basic metals and coke & refined petroleum - the importance of the impact relative to their respective employment being always lower than 1% (Chart 3). It should be stressed that the global net negative effects for motor vehicles (a medium-skill intensive sector, characterised by a widespread relocation of EU firms towards the CEECs) are exclusively concentrated on two years at the end of the nineties, while positive effects appear all through the other seven years. Communication equipment, also characterised by various forms of subcontracting by EU firms and a highly skill intensive and high tech sector, concentrates its negative impact on the three last years. Finally, the two last negatively affected sectors are coke and refined petroleum and basic metals, both middle-low technology intensive, relatively higher skill the first, while low-skill the latter.

What type of workers has been particularly hit? As expected, blue-collars have been hit relatively more than the white-collar workers in motor vehicles and in basic metals, where production is relatively unskilled-intensive. However, quite differently from the previous three sectors, now it is the lower skilled who got the worse lot among the blue-collars, while the higher skilled white-collar workers appear again to be more affected than their less skilled counterpart (in fact, in basic metals the white-collar low-skill have even been favourably affected!). On the contrary, in communication equipment and refined petroleum – white collars appear to have been hit relatively more than the blue collars. Within the white collar, the higher skilled have been hit relatively more than the lower skilled, while as far as the blue collars are concerned, it is the lower skilled who got the worse

lot. Altogether, then, the losing sectors generally belong to the lower or middle part of the skill intensity ladder, at the only exception of communication equipment and coke & refined petroleum.

The decomposition by sectors and skills allows taking into consideration one important aspect. When the trade impact on labour demand is negative, all the skills specific to the losing sectors tend to be devalued, beyond the blue-collar and including the white-collar workers as well, the only exception being the lower skilled white-collar workers in the basic metals sector.

While hypothetical job losses are highly concentrated (7 sectors), the potential positive impact on labour demand tends to be spread out more evenly over a larger number of sectors (15). Chemicals by far take the lead, the net favourable impact being estimated at roughly 28% of the total positive impact, corresponding to just under 2% of its employment levels (Chart 7 and Chart 8). This is one of the most skill-intensive industry, its ratio of white-collars amounting to 59% of total workers. It is also a medium-high technology industry, characterized by segmented markets with high scale economies and entrance costs. Never during the period under consideration does the sector suffer from any negative impact. Textiles, rubber & plastics, pulp & paper and precision instruments follow suit, representing altogether another 42% of the global impact, its ratio to the corresponding employment levels of each sector being around 1%. Altogether these five sectors represent 70% of the net global positive impact (Chart 8). It is worth noting that, with the exception of precision instruments, the great bulk of the positive impact appears mostly in intermediate products, generally not at the top end of the technology spectrum.

In fact, the remaining and minor positive impact represents altogether 30% of the whole global net positive impact and is distributed among the other 10 sectors, namely, according to the share in their respective total employment, other non-metallic minerals, electrical machinery, machinery and equipment, fabricated metals, tobacco, food products, office machinery, leather and footwear, other transport and finally publishing & printing. All of these sectors show net positive employment effects lower than 0.5% of the labour force employed in the respective sector.

It is worth bearing in mind that in the case of positive impact this effect comes on top of steady increases of EU exports towards the CEECs.

Who gains relatively more among the workers of the winning sectors?

In only three cases – chemicals, precision instruments and office machinery – the white-collar workers fare better than the blue-collar workers (TABLE 1). Chemicals being so important within the total positive impact, this raises the share of the white-collar. In all the other gaining sectors, on the contrary, blue-collar workers have been relatively more affected than their white-collar counterparts (Chart 11). This result too seems to counter received ideas about the discriminating impact of this type of trade. Moreover, by disaggregating the analysis, one finds that the lower skilled blue-collar workers tend to fare relatively better than their higher skilled counterpart, while, within the white-collar category, the higher skilled workers appear to fare better than the lower skilled. The latter is the only finding that appears to be in line with a priori expectations.

Altogether, if we take the four segments partition in the winning sectors, white-collar high-skill labour gets the best results in only three sectors – chemicals, taking the lion's share, precision instruments and office machinery -, blue-collar high-skill in six sectors and finally blue-collar low-skill labour in the remaining six sectors. Lower skilled white-collar labour never appears to be gaining the most.

CONCLUDING REMARKS AND POLICY IMPLICATIONS

The first general conclusion one may draw from the preceding analysis is that trade between the EU and the CEECs does not seem to lend support to the widespread fears that these flows might cause serious disruptions to our labour markets. On the contrary, taken globally, this trade should continue to be beneficial to it, in the sense of exerting overall positive pressures on labour demand. Even sectors like clothing, wood, and furniture & miscellaneous manufactures, which appear to have received the most important negative impacts on their potential labour demand, do not seem to have incurred into actual job losses directly due to these bilateral trade flows. Even if we allow for the inclusion of the indirect labour effects, the use of the CEECs' instead of the EU labour

coefficients and the so called defensive innovations as a reaction to imports, our global results should be multiplied at most by four times, which would still represent a very low share of total employment.

It should be emphasized once more that what we are talking about here is not an actual destruction of jobs, but a differential impact on labour demand of the different categories of labour. If the broad trends of reciprocal trade continue unabated, especially if EU exports go on rising, a rise of imports will not come at the expense of domestic production, so that no actual threat to domestic jobs seems to be imposed by this kind of exchange.

It is worth bearing in mind that some of these sectors - clothing in particular – have been characterized by a swift and substantial redeployment of particularly labour intensive stages of the productive process toward the CEECs. As an example, over many years the majority of EU clothing imports from some of the CEECs have been represented by OPT products. The fact that notwithstanding this sizable relocation of production EU exports to the CEECs in these sectors continued unabated goes a long way to implying a swift restructuring of EU exports into different quality levels and/or different types of products at the same quality level inside the same sectors (intra-industry specialisation). In other words, all actual losses that industrial sectors might have incurred into at some quality ladder of production or for certain types of products have been, and very seemingly will be, compensated by more than proportional gains at some other quality ladder or in different types of goods belonging to the same quality level. In these cases rising trade may thus mean actual destruction of jobs tied to particular types of production compensated by job creation in other types of productions.

Even in the case of physical relocation to the CEECs of some segments of the EU productive process, it might be affirmed that the former jobs would have been lost anyway because of international competition. In fact, one might even say that without such a re-deployment, EU firms would not have enhanced their competitiveness and survived, thus sustaining domestic employment and even creating new types of jobs. Moreover, the push to produce different, often higher-quality products, has likely induced a skill upgrading of the EU labour force. As

these goods are targeted to different niches of consumers, so they require different types of skills in their production.

The second general remark refers to the very debated issue of the relative impact of trade on skilled versus unskilled labour. Here the dominant theory seems to be confirmed only so far as we take white-collar and blue-collar as proxies for, respectively, skilled and unskilled labour and only considering the losing sectors. That is to say, trade with the CEECs seems to have negatively affected the blue-collar workers, while the contrary appears to be true for their white-collar counterparts. These are the results closest to theoretical expectations. Trade being one of the factors influencing the demand side of the labour market, it appears to strengthen the so called skill-biased effect of technical change.

However, when we consider the gaining sectors, we obtain a first finding that does not accord so well with the theory: here the blue-collar labour seems to gain relatively more than the white-collar in many more sectors than the contrary is true. If we further subdivide each of the two former categories into higher and lower skill levels, the further seemingly paradoxical result is that the only category of the four segments scheme to receive a negative impact at a global level is the blue-collar high-skill.

Obviously, these results stem both from the nature of trade between the EU and the CEECs and from the typology of labour utilized in the present analysis. Most of the 22 industrial sectors employ prevalingly blue-collar labour, at the exception of office machinery, coke & refined petroleum, chemicals, communication equipment, publishing & printing and precision instruments. Of these, only coke & refined petroleum and communication equipment have shown a negative sign of their cumulative net trade impact. Moreover, most sectors (16 out of 22) employ prevalingly higher skilled labour, 9 of them of the blue-collar type and 7 of them of the white-collar type. Only 5 sectors employ prevalingly low skilled labour – food products, tobacco, textiles, paper, and rubber and plastics, none of them being on the losing side. Finally, during the period under consideration, a progressive upgrading of the skill structure of industrial labour employment has been materialising in most EU countries.

There exists however another possible explanation for these results. A research conducted by the author on EU manufactured imports from the CEECs at the most disaggregated level shows first that most of these products belong to a lower quality ladder than the same goods exported by the EU in exchange or traded inside the EU market. If we accept a positive relationship between the quality of products and the skill of the workers necessary for their production, lower quality goods should be associated with productive structures including relatively more low-skill workers, while the contrary should be true for the higher quality products.

This would appear to reinforce the soundness of the basic finding that the blue-collar workers fare worse than their white-collar counterparts, but still would not explain the further apparently paradoxical finding that globally the higher skilled blue-collar appear to have received a negative impact, while the contrary seems to be true for the lower skilled blue-collar. However, the same research highlights in a detailed way that the EU industrial imports from the CEECs have undergone a general process of steady, albeit slow, quality upgrading over the period under consideration. As a consequence, even within the down-market category of products, CEECs goods have tended to increase their competition with EU higher quality product ranges, which require higher skilled workers even of the blue-collar type.

What kind of policy implications may derive in the end from the impact of trade with the CEECs on EU employment?

As we have shown, these trade flows should not cause serious disruptions to our labour markets. However, some sectors, like clothing, wood and miscellaneous manufactures appear to have received rather negative impacts on their potential labour demand, although they do not seem to have incurred into actual job losses directly due to the bilateral trade flows. Overall, the evidence suggests that competition from the CEECs does not appear to have resulted in net job losses at the sectoral level, but in the reallocation of labour within the sectors concerned, in a way tending to exacerbate intra-industry adjustment problems. In other words, gross hypothetical job displacements due to trade are much larger than the net changes calculated above. Very likely, these effects will continue to materialise after enlargement. In a situation characterized by widespread unemployment, this might

imply a slower pace of recovery toward full employment in those negatively hit sectors. In such negatively affected sectors, the blue-collar workers seem to be at a disadvantage relatively to the white-collar workers, and in particular the higher skilled blue-collar workers appear to fare worse than their lower skilled counterpart.

Undoubtedly, any intra-industry restructuring such as the one implied by the above described trade impact creates a problem of workers' mobility and relocation to other productions. However, such an adjustment looks certainly easier than an inter-industry one, especially if kept within the boundaries of close-by regions. In other words, moving managers, technicians and workers from one type of product to a similar one (horizontal intra-industry) or from lower skill to higher skill productions within the same industry (vertical intra-industry), tends to be less painful for individuals and less costly for society than an inter-industry restructuring, i.e. moving the same employees from one industry to another one.

Superficially and quite emotionally it might appear that the potential distributional effects of trade could be mitigated by trade protection in less skill-intensive industries. However this would probably be the worst answer to the restructuring problems seen above. Policies aimed at impeding or slowing down trade would necessarily tend to decrease global efficiency and collective welfare, hitting both the losing and the winning sectors.

Although the overall effect on employment is likely to be small, the standard policy one can advocate in those circumstances in which trade liberalization imposes a toll on certain groups of workers is still to require that the winners, i.e. consumers on one side and industry managers and maybe workers who find better jobs in export industries, should in some way compensate the losers. One way the EU could accommodate such policy is, within the structural funds program, through temporary aid to workers and firms adversely affected by such trade developments in some precisely targeted sub-sectors. However, any cash aid should only be given in a way that accelerates adjustment, with special incentives to those who find new jobs as early as possible. But more importantly, this adjustment program should offer, in a forward-looking manner, retraining programs, job search assistance and contributions to relocation expenses. Our findings imply a selective policy not only in terms of sectors and sub-sectors,

where a policy mix differentiation between the losing and the gaining sectors appears to be necessary, but also in terms of the different categories of labour within each of them. The core of the EU policy should be an active labour policy, in the sense of helping in particular the higher skilled blue-collar workers of the losing sectors, while stimulating the relative enlargement of the winning export sectors. Overall, creating a more flexible labour force would appear a sound answer in the face of the structural changes seen above.

Our analysis has finally some indirect implications for immigration policy as well. Since trade and migrations may at times be considered as substitutes, the two policies should not be viewed separately, but rather within an integrated framework that takes into account the past and future potential flows of both. Immigration flows might have at first a bigger impact than trade on the EU industrial labour market, if they were left free. So here, contrary to trade, a temporary restriction to the fully free labour movement would appear necessary, very much in line with previous EU enlargements. However, like in the case of trade, such immigration policy should also be selective, in the sense that the host countries should be able to select those immigrant workers that satisfy best the domestic labour demand, actual and potential. In this sense, the EU should in particular stimulate the immigration of some types of white-collar workers, which would decrease the domestic excess demand for such category of labour, further enhanced by the trade flows. It is worth recalling that the rise of employment in those professions would also encourage an expansion in the demand for less skilled professions, thus releasing some of the unemployment tensions there. Naturally, seasonal less skilled workers would continue to be let in to fill the gaps in some sectors of the economy.

This transitional and selective immigration policy could be organised either through traditional bilateral agreements, which have shown to be rather effective and not too costly, or through more innovative tools, like an auction system of immigration visas for the domestic firms (here the requirement should be that they pay the same wage to migrant and domestic workers). Needless to say, but worth repeating, any immigration policy left only to individual EU countries would be doomed to failure.

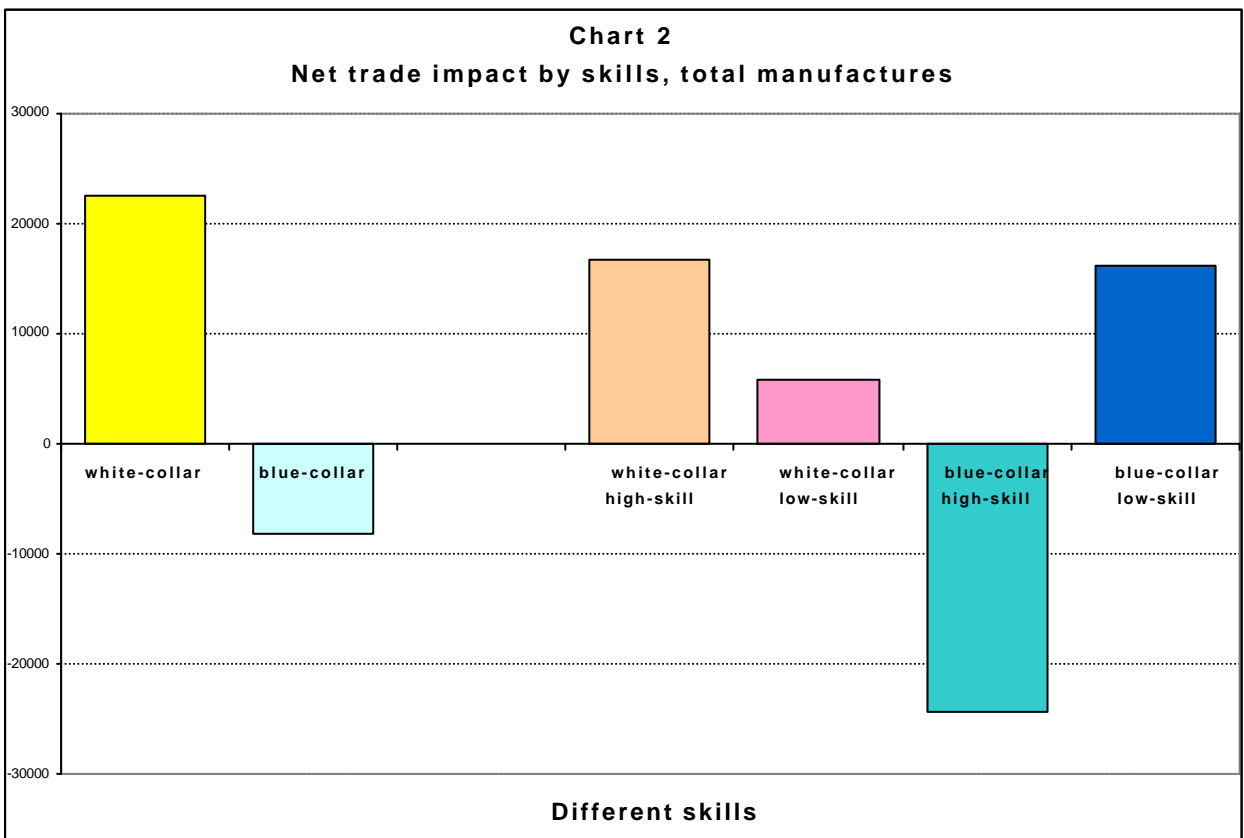
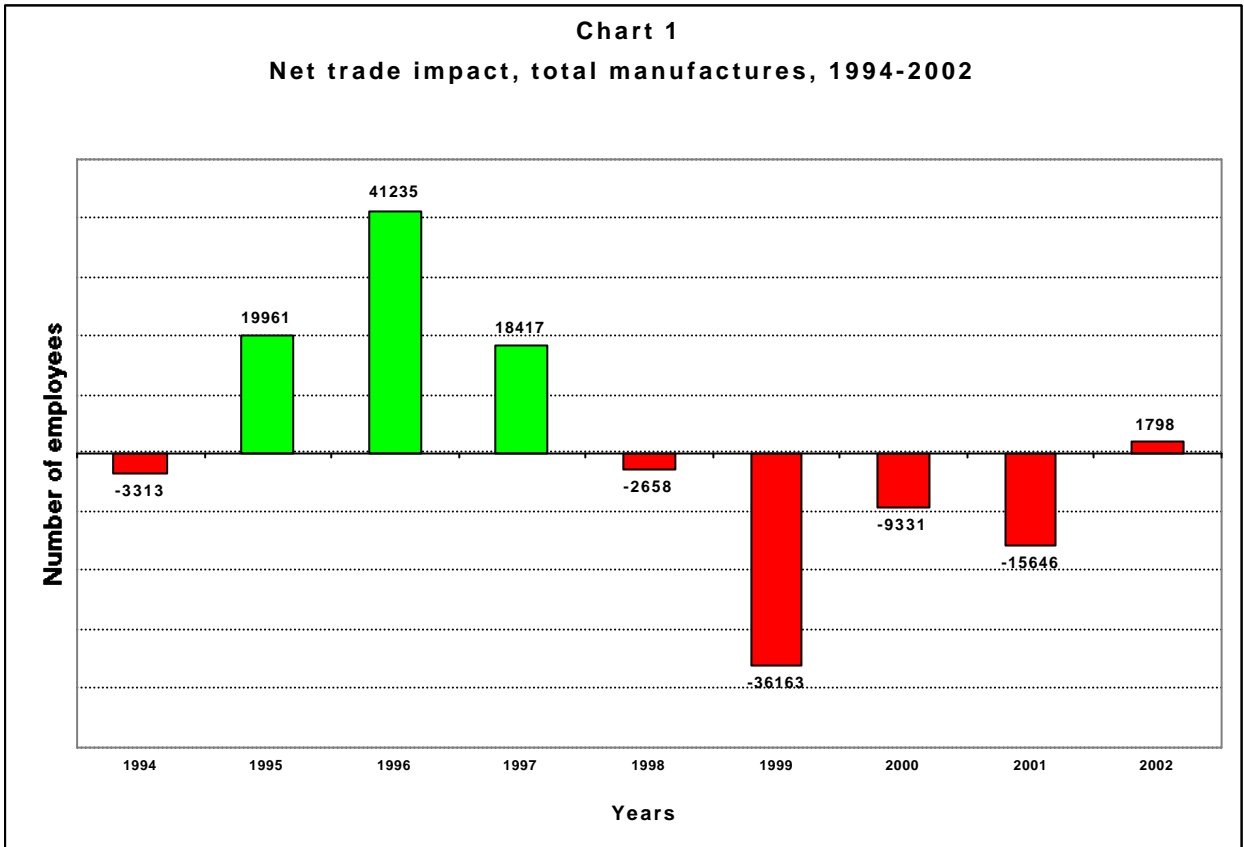


Chart 3
Net negative trade impact 1994-2002 as % of employment

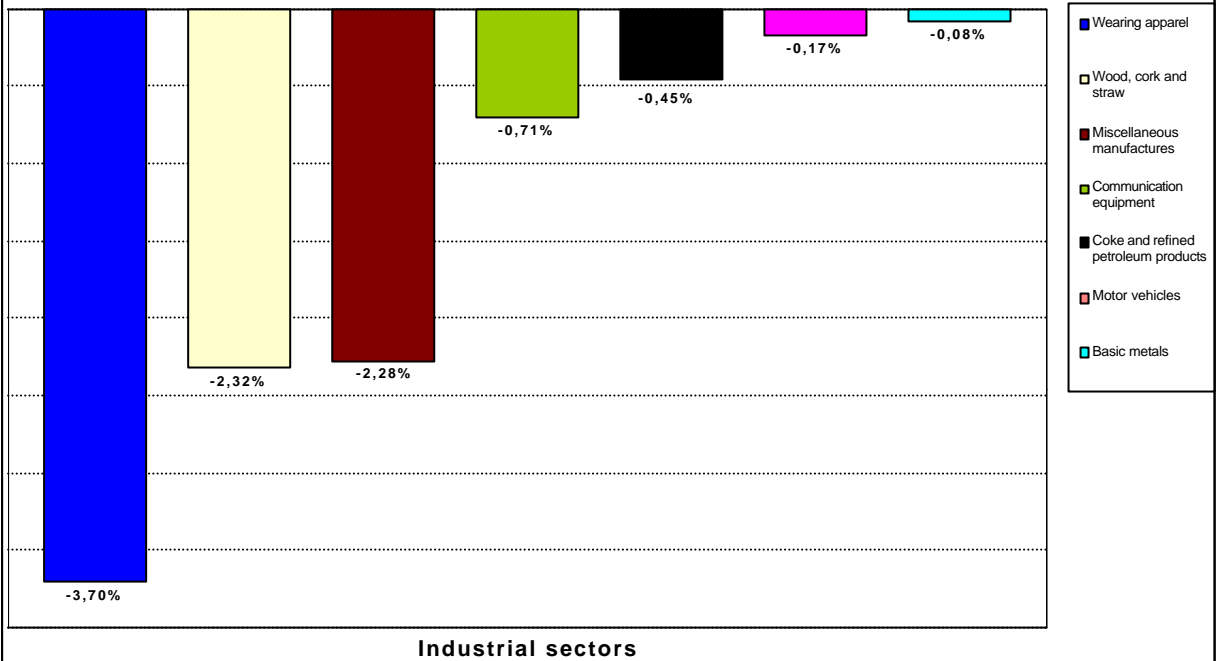


Chart 4
Sectors with major net negative trade impact, 1994-2002

