"EARLY TRADE PATTERNS UNDER THE EUROPE AGREEMENTS: FRANCE, GERMANY AND ITALY"

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Early Trade Patterns Under the Europe Agreements: France, Germany and Italy

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Abstract

In the sphere of trade preferences, The EAs have largely amounted to a ratification of the status quo reached between the EU and the CEECs following prior trade liberalization by both sets of partners. It is widely accepted that this cautious approach reflected fears of large adjustment costs among EU members. The paper examines the CEEC-EU trade pattern over 1990-93, finding no evidence in support of these fears. Detailed regional-level calculations of likely job displacements for France corroborate the findings from aggregate trade flows.

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1. Introduction

The profound changes in the political and economic landscape brought about by the fall of the Berlin Wall and the end of the cold war have raised the issue of the pace and future steps of European integration. In the last few years, the European Union (EU) has negotiated with six Central and East European Countries (CEECs) bilateral EU-CEEC association agreements, the so-called Europe Agreements (henceforth EAs).[1] At its Copenhagen summit of 1993, the European Council also opened the door to eventual EU membership for those CEECs wishing to become Union members. At the same time, under the encouragement of EU and European Free Trade Area (EFTA) nations, a growing number of CEEC-CEEC free trade agreements, such as the Central European Free Trade Area, have been signed. As a result, with the exception of agriculture and services, European trade should soon be free of barriers, a Pan European common market being the long term objective [Baldwin (1994) estimates at least a twenty-year horizon for CEEC membership in the EU].

Even if Eastern Europe's economic recovery and transition to a market economy is swift, a sudden import surge from the CEECs on EU markets would undoubtedly raise the demand for protection in the EU and could retard membership.[2] Such a scenario is not implausible, even though the EAs have left out agriculture and contain special provisions for the so-called sensitive industrial sectors (textiles and apparel, iron and steel and chemicals) to contain any import surge from the CEECs through the application of contingent protection. Indeed, it is because the EAs have essentially left out the sectors in which the CEECs have a comparative advantage that several observers [e.g. Winters (1993) and Messerlin (1993)] described them as a ratification of the status quo.

It is as though the EU would welcome the CEECs provided that their accession to membership does not entail any job loss or require any adjustment on the part of EU members. This paper questions the fears reflected in the EAs and looks for indices of adjustment costs for three of the largest EU members: France, Germany and Italy. The evidence is mostly based on CEEC-EU trade statistics during 1990-93, as trade statistics for earlier periods are largely irrelevant, reflecting flows that were not market-determined. Since we are at a very early stage of the transition towards fully integrated market economies in the CEECs, all we can hope to do is piecing together anecdotal and very preliminary evidence.

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[1] The CEEC countries considered in this paper are (population and 1991 dollar income per capita in parenthesis): Bulgaria (9.0 mil., $1,840), the Czech Republic, Hungary (10.3 mil, $2,720), Poland (38.2 mil., $1,790), Romania (23 mil., $1,390) and Slovakia. In this paper the Czech Republic and Slovakia are taken together and called CSR (15.7 mil., $2,470). All CEEC data in this paper refers to these five countries. Trade data for Germany include the former East Germany for starting in 1993.

[2] For instance, during 1991 trade negotiations with Poland, France voiced its opposition to any substantial liberalization of beef trade for fear of market disruption. The outcome of the negotiation was an increase in the Polish beef quota from 4000 tons/year to 6000 tons/year over a five-year period. Polish beef was subsequently banned by the EC on sanitary grounds.

2. Growing two-way CEEC-EU trade in sensitive sectors

Even if a close reading of the EAs reveals that they do not provide direct incentives for increased CEEC-EU trade, trade is likely to increase for at least two related factors. First, trade barriers caused by central planning and the barter trade arrangements under the CMEA artificially bloated intra-CEEC trade at the expense of trade with the outside world. The pattern of "natural" (i.e. market-determined) comparative advantage of the CEECs is therefore only starting to reveal itself. Second, because the CEECs grew slowly under central planning, they traded less with the EC than they would have, had they grown faster. Trade reorientation reflecting market-determined comparative advantage and income catching up with the EU should thus both contribute to increased CEEC-EU trade.

How important is CEEC-EU trade likely to be? In 1992, EC imports from the CEECs represented 3.0% of total EC imports (7.4% of extra-EC imports) up from 2.6% (6.2%) in 1989. Close to half (46%) of those imports were accounted for by the CSR, Hungary, and Poland. Export shares were close to import shares, so that in 1992 CEEC-EU trade was almost balanced (the EU had an aggregate CIF/FOB deficit with the CEECs of slightly above $1 billion, down from $8 billion in 1989). The most sanguine projections of CEEC-EU trade growth -- based on the gravity explanation of trade flows -- suggest that even after one accounts for both potential income catching-up (which raises the volume of trade) and increased CEEC-EU trade that should result from the CEECs acquiring the trading patterns of a suitable group of comparator countries, 1992 trade shares would at most double [Baldwin (1994)]. Thus, at this stage, no CEEC-EU trade projection suggests that the CEECs would, in the long-run, account for more than a fifth of extra-EC trade.

There is yet the possibility that in spite of small extra-EU trade shares, the CEECs may be developing a comparative advantage in "trade-sensitive" sectors, here defined to include Food and agricultural products, Chemicals, Steel, and Textiles & Apparel (T&A). Special arrangements govern trade in these sectors: textiles are subject to special quota regimes during the transition period before the EAs are fully operative, agriculture is outright excluded from the benefits of trade liberalization, and steel and chemicals have already been subject to contingent protection in the form of antidumping duties. As a consequence, one should be extremely cautious in interpreting trade figures in these sectors.

Table 1 here
Trade Flows in Sensitive Sectors:1990-93

Trade volumes in sensitive sectors, shown in table 1, are small in the aggregate volume of extra-EU trade (although not in aggregate CEEC-EU trade). For food and agricultural products, a sector in which the CEECs might be expected to enjoy a comparative advantage, there has been no penetration of EU markets, while all three EU countries have raised their export volume to the CEECs (France notably so, replicating there a characteristic of its trade pattern with Spain). In the other sensitive sectors, import growth from the CEECs has been matched by export growth to the CEECs, so that trade is typically roughly balanced [on steel, see Winters (1994)]. Exceptions are surprisingly trade imbalances in favor of EU members (Germany and France in chemicals, France in food and agricultural products). In the case of Italy, for which T&A is presumably the most important sensitive sector, imports may have

tripled, but exports have also more than doubled in volume; this reflects large flows of "outward processing traffic" (OPT) by which EU firms subcontract intermediate stages of the manufacturing process to the CEECs. Such trade is regulated by special so-called "OPT quotas" [see Corado (1994)] designed to enhance the competitiveness of EU textile and clothing firms *vis-à-vis* their Asian competitors. These early returns on sensitive sectors suggest that EU members' fears of widespread penetration from the CEECs may have been overdone, not so much because imports have been contained by the application (or the threat of application) of contingent protection, but because the three largest EU members have increased their own exports to the CEECs in these sectors, although this may also be, as in the case of textiles, the result of special trading arrangements.

3. Dissimilar CEEC-EU trade patterns

Another, though more remote possibility, is that the CEECs could become a threat for EU countries if they develop a comparative advantage pattern similar to that of EU members, thereby displacing EU members on EU and extra-EU markets. At the same time, one could argue that if CEEC-EU trade is tending towards a pattern of intra-industry rather than inter-industry trade, adjustment costs would presumably be lower as reshuffling would take place within rather than between sectors, with fewer plant shutdowns and resource reallocation.

It is too early to detect definite trends or to have a reasonably robust idea of the CEECs' long-run comparative advantage. One can however calculate indices of the composition of trade and examine if there have been any noticeable changes in CEEC-EU trade since trade flows have been liberalized. We construct two measures: one of the disparity of the composition of trade flows between each one of the five CEECs (Bulgaria, CSR, Hungary, Poland and Romania) and the three selected EU countries (France, Germany and Italy), the other of the pattern of trade (intra vs. inter industry trade). The disparity index DIS_{ij} between countries i and j is based on pairwise comparisons of Balassa (1965) indices of revealed comparative advantage. The index takes on positive values, with increasing values indicating greater disparity in the export patterns of i and j on EU markets. [3] The aggregate intra-industry trade measure $ß_{ij}$ (calculated at the CN2 product level) is the Gruebel-Llyod (1975) measure. Values of the index close to 0 indicate Hecksher-Ohlin inter-industry trade while values close to 1 indicate intra-industry trade.[4]

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[3] The disparity index DIS_{ij} between countries i and j is given by:

$$DIS_{ij} = 1/n \ \Sigma_k \ (RCA_k{}^i - RCA_k{}^j \ )^2$$

where k = 1,...,n denotes sectors and $RCA_k{}^i = [X_{ik} / \Sigma_k \ X_{ik}] / [\Sigma_i \ X_{ik} / \Sigma_i \ \Sigma_k \ X_{ik}]$. Note that exports are summed only over the group of countries considered here so that the RCA index is only a partial index pertaining to trade within the group.

[4] The aggregate intra-industry trade index is given by the expression:

$$ß_{ij} = (\ \Sigma_k \ w_{ijk} \ B_{ijk})/(1-a_{ij})$$

where a_{ij} is a term correcting for bilateral trade imbalances and w_{ijk} is the weight of sector k in bilateral trade between countries i and j. The value of the sector-level index of intra-industry trade,

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These indices are sensitive to the degree of aggregation (values of β_{ij} are nondecreasing in the level of aggregation) and, to a lesser extent, to year-to-year fluctuations in trade volumes. To control as much as possible for these effects, calculations use the same product-level classification and are two year-averages (1990-91 and 1992-3). The results of the calculations are presented in a figure to facilitate comparison between periods.

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Figure 1 here
1a) CEEC-EU disparity indexes: 1990-1 vs. 1992-3
1b) CEEC-EU Intra-industry Trade: 1990-1 vs. 1992-3

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Figure 1a reveals a basic similarity between the EU-3 (France, Germany and Italy) and a large disparity between them and the CEECs. The sum of the variances in the export shares between France, Italy and Germany is very small, indicating their close similarity. This suggests that any "trade shock" arising from CEEC integration would be more symmetric than idiosyncratic for the subset of the EU considered here[5]. Of the group of CEECs, only the CSR [6] has relatively low values for the DIS index, suggesting that it is among the CEECs the country that is "most similar" with the EU, while Romania has an extremely high index value due to its relatively concentrated export structure. Most values lie below the 45^0 line suggesting some convergence in CEEC and EU trade structures.

Measures of intra-industry trade shown in table 1b yield a similar pattern with a mild tendency towards greater intra-industry trade (more points above from the 45^0 line), a trend that was noticeable during the 1960s after the formation of the EC. The cluster also indicates usually more intra-industry trade among pairwise comparisons between high-income CEECs and the EU-3, a prediction which is consistent with trade theories combining monopolistic competition and Hecksher-Ohlin features [e.g. Helpman (1981)]. It is fair to say, however, that at this early stage of the transition, the disparity between the CEECs and EU countries is large, and that there is as yet little evidence of strong convergence in trade structures (and thus presumably in comparative advantage.)

4. Regional job loss concentration: some estimates for France

Another plausible reason for fears of adjustment costs is that penetration will be concentrated in a few sectors, themselves heavily concentrated in a few regions. For instance, in France employment in the steel industry is still concentrated in declining regions (Nord and Lorraine). Thus further contractions in steel employment would impose disproportionate adjustment costs in these regions, and one could expect rising protectionist demands. Below,

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B_{ijk}, is given by:

$$B_{ijk} = 1 - [\ |\ X_{ijk} - M_{ijk}\ |\ /\ (X_{ijk} + M_{ijk})]$$

so that $0 < \beta_{ij} < 1$.

[5] The *regional* distribution of the shock, however, could well be idiosyncratic; see section 4 below for estimates for France.

[6] In all calculations, the Czech and Slovak republics were lumped together in the calculations.

we report results of partial equilibrium simulations of the potential effects on regional employment of growth in CEEC-EU trade for France based on sectoral regional employment data for 1990. The calculations assume (symmetrically) that all CEEC-EU exports will displace domestic producers and that all export growth to the CEECs will lead to new jobs. In fact, imports from the CEECs are likely to displace, at least in part, other imports (intra and extra-EU), and similarly not all increased exports to the CEECs will lead to new jobs. The estimates shown in table 2 should therefore be thought of as upper boundaries on job displacement. Calculations are based on a uniform employment-output elasticity of 0.5,[7] and nationwide employment changes at the sectoral level are distributed the accross regions on the basis of regional employment shares from INSEE for 22 sectors in each one of 22 regions.

While several simulations were carried out (giving fairly similar results), we report in table 2 results for six regions which would have relatively large net job displacement (creation or destruction) in some sectors based on an extrapolation over three years of sectoral import and export growth rates observed during 1990-2 (France-CEEC trade contracted in 1993 as a result of the recession). This simple extrapolation should be viewed as an optimistic scenario, and an upper bound on trade growth potential. Indeed, this extrapolation leads to explosive export growth in one sector (T17, shipbuilding, armaments and aeronautics) which is therefore excluded from the aggregate results in table 2. These show a net creation of 5,965 jobs, a very small estimate indeed. Gross job displacement, perhaps a better measure of the intensity of demand for protection, adds up to 12,789 jobs (9,377 jobs created and 3,412 destroyed).

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Table 2 here

Gross Job Destruction Estimates at the Regional Level: France

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Even in the regions most affected by job displacement, totals are very small. Again excluding sector T17, net job creation of over 1,000 jobs is projected for only one out of 22 regions (the Paris region), with the next largest region only half as much. However robust these estimates are, they are more likely to be biased upwards than downwards for reasons explained earlier, and these preliminary results stand out as striking ones in view of the more than cautious approach that successive French governments have taken towards trade liberalization with the CEECs.

5. Concluding remarks

This paper has argued that the perception that the EAs were a ratification of the status quo (as of 1990) of CEEC-EU trade relations is consistent with the observed lack of CEEC penetration in sensitive sectors, where the CEECs are likely to have the greatest margin of comparative advantage. The paper also found little evidence that the CEECs are moving in a significant way towards trade structures that are competitive with those of the EU members.

Finally simulations of job displacement failed to suggest sizeable job destruction at the regional level for France. Nonetheless, several factors point towards caution in interpreting

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[7]This value is higher than most cyclical employment elasticity estimates for France; see for instance INSEE (1987).

these results. First, although there is no a priori reason why it should be so, regional concentration could be higher in other EU countries, leading to a greater likelihood of concentration in job losses. Second, the flat profile of CEEC exports in sensitive sectors over the period 1990-93 may well be a reflection of EU protection to be lifted at the end of the transition period (except for agriculture). Alternatively, CEEC exports may be low because of the expectation of retaliation in the form of contingent protection, or yet again because of macroeconomic uncertainties during the transition. Third, any sectoral distribution of CEEC exports observed at this stage may simply fail to reflect the CEECs' long-run comparative advantage, as structural adjustment is far from over in those countries.

In spite of these caveats, taken together, the evidence shows little sign that the CEECs are moving towards a pattern of comparative advantage that would significantly threaten the EU. Nor does it suggest that the CEECs made any significant inroad in sensitive sectors. Finally, we believe that the orders of magnitude of employment effects reported here are not way out of line, or at least not sufficiently so as to alter our basic prediction; namely that the EAs (and the prior removal in 1989 and 1990 of discriminatory trade treatment against the CEEGs) will not result in sizeable job loss among EU members.

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Table 1

Trade in sensitive sectors (million ECU)		Imports				Exports		
Italy								
	1990	1991	1992	1993	1990	1991	1992	1993
Food & agric. prod.	496.97	497.93	446.77	354.44	128.11	180.22	148.36	162.84
Chemicals	164.36	174.90	176.96	182.00	109.32	110.07	152.35	224.32
Textile & apparel	197.13	294.54	554.18	645.12	238.67	320.01	484.48	543.16
Steel	285.13	289.20	341.03	279.18	81.33	81.39	105.07	106.02
Germany								
	1990	1991	1992	1993	1990	1991	1992	1993
Food & agric. prod.	926.32	1210.75	1186.62	1080.62	563.05	717.83	776.23	960.79
Chemicals	280.25	415.25	440.02	360.08	631.25	881.41	1017.77	1156.76
Textile & apparel	1292.50	1803.19	2316.28	2772.52	912.93	1313.57	1718.69	2128.97
Steel	608.95	783.40	1126.72	1134.89	264.09	331.28	439.47	525.90
France								
	1990	1991	1992	1993	1990	1991	1992	1993
Food & agric. prod.	1721.17	1754.28	1738.67	1708.89	1248.31	1912.01	2313.15	2341.04
Chemicals	151.16	174.96	135.81	115.05	210.08	220.54	285.95	316.53
Textile & apparel	280.59	343.19	370.95	373.89	163.57	178.24	191.16	192.19
Steel	114.89	108.28	127.64	80.85	39.65	39.95	46.62	61.46
Source: EUROSTAT, COMEXT								

CEEC$_r$EU disparity indices, 1990-91 vs 1992-93 (log scale)

Figure 1b

Intra-industry trade indices, EU members vs CEECs
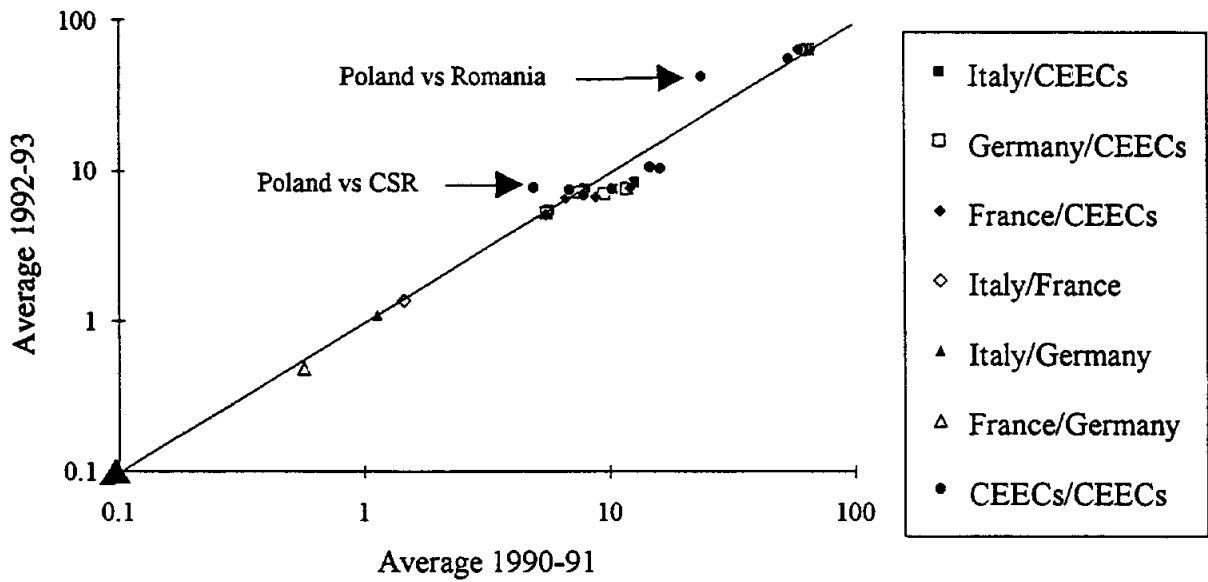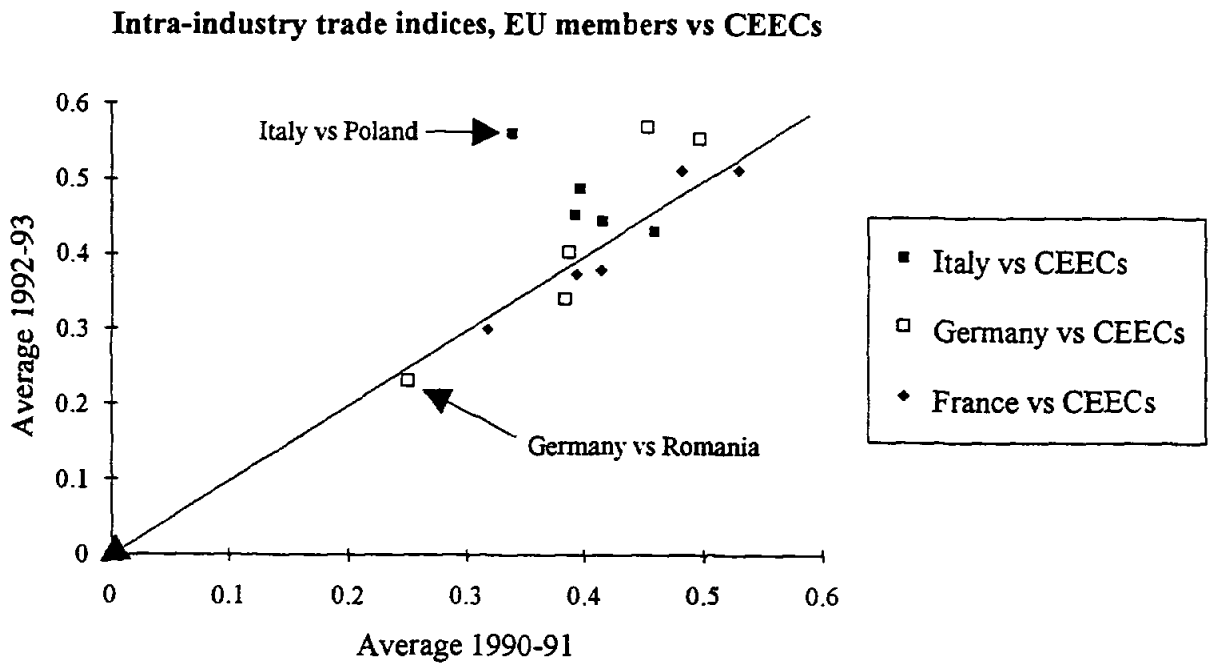
Table 2

Job creation & destruction from trade with the CEECs, selected regions								
(in number of jobs)								
	NAP-40 code	France	Ile de France	Nord-Pas-de-Calais	Lorraine	Pays de Loire	Bretagne	Rhone-Alpes
Agriculture & fisheries	T01	214	8	9	4	20	16	10
Meat & dairy products	T02	1571	94	61	66	204	279	143
Other food & agricult.	T03	2047	296	169	78	113	133	153
Fuels	T04,T05	-242	-57	-17	-65	-6	-1	-10
Water, elect. & gas	T06	0	0	0	0	0	0	0
Ferrous metals & ores	T07	-211	-14	-41	-56	-5	-3	-13
Nonferrous metals & ores	T08	-234	-30	-17	-2	-8	-1	-52
Construction materials	T09	7	1	0	0	0	0	1
Glass & glass products	T10	148	18	37	9	2	2	13
Chemicals	T11	-418	-67	-29	-21	-5	-7	-67
Pharmac. & other chemicals	T12	533	186	23	6	12	14	51
Metalworking	T13	-350	-47	-21	-17	-20	-8	-59
Mechanical construction	T14	1336	221	91	52	75	30	232
Prof. & household equipt	T15a + T15b	717	234	21	16	40	25	81
Automobile & equipt	T16	2543	549	192	138	114	109	231
Aeronautics, shipbldg, arm.	T17	423172	117388	2835	1227	31357	32076	15361
Textile & apparel	T18	1201	-178	-193	-55	-78	-23	-183
Leather & footwear	T19	-304	-29	-4	-13	-67	-10	-31
Wood & furniture	T20	-452	-61	-18	-24	-39	-19	-54
Paper & paper products	T21	55	7	6	3	3	1	7
Printing & press	T22	68	29	3	2	3	2	5
Rubber & plastics	T23	138	11	7	5	11	5	19
	Net job creation (excl. T17)	5965	1170	279	126	369	544	477