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RELATIVE TRADE-WEIGHTED UNIT LABOUR COSTS BY INDUSTRY

Karine Lepron and Paul Schreyer

This document presents three alternative methods for the construction of indicators of relative trade-weighted unit labour costs by industry as well as the empirical results based on these methods for 18 OECD Member countries. With some exceptions, the results show that the indicators derived from the alternative methods are highly correlated. It also turns out that there are significant variations in time profiles of relative unit labour costs by industry, an observation that underlines the usefulness of industry-specific information for an in-depth analysis of price competitiveness.

COÛTS UNITAIRES RELATIFS DE LA MAIN D'OEUVRE PONDÉRÉS PAR LES ÉCHANGES, PAR BRANCHE D'INDUSTRIE

Karine Lepron et Paul Schreyer

Ce document présente trois méthodes possibles pour la construction des indicateurs de coûts unitaires relatifs de la main-d'oeuvre pondérés par les échanges, par branche d'industrie, ainsi que les résultats empiriques basés sur ces méthodes pour 18 pays Membres de l'OCDE. Mises à part quelques exceptions, les résultats montrent que les indicateurs dérivés de ces différentes méthodes sont très corrélés. On note également des variations significatives au cours du temps des coûts unitaires relatifs de la main-d'oeuvre par branche d'industrie, une observation qui souligne l'utilité de cette information au niveau sectoriel pour une analyse plus poussée de la compétitivité-prix.

RELATIVE TRADE-WEIGHTED UNIT LABOUR COSTS BY INDUSTRY

Background

This document presents indicators of trade-weighted unit labour cost, disaggregated by detailed manufacturing industry. The indicator constitutes an addition to the OECD set of main industrial indicators and combines statistical information from different parts of the STAN family of databases.

Measures of international competitiveness have long played an important role among industrial indicators. Often, a distinction is made between price and non-price competitiveness: the first representing a firm's or industry's capacity to succeed in price competition (for a given product quality) while non-price competitiveness encompasses a host of other factors that may account for a firm's or industry's success such as product quality, diversity, novelty or after-sales services. Both dimensions are of importance, but the cost dimension is easier to measure and more often at centre-stage in policy discussions as cost competitiveness is directly influenced by macro-economic factors such as exchange rate shifts.

By definition, any measure of cost competitiveness is a relative one, relating one country's costs (or prices) in a particular industry or sector to those of its competitors. A distinction must be drawn between absolute measures of cost differences and the comparison of rates of change over time. Most empirical measures of cost competitiveness are confined to comparisons of movements in relative costs and do not allow absolute comparisons. This is essentially due to measurement problems: the most important impediment is the absence of adequate relative prices to convert measures of industry output or productivity into one common currency. The use of exchange rates or expenditure-related economy-wide purchasing power parities (PPPs) is problematic as these measures neither reflect industry differences nor necessarily relative producer prices. Although some empirical studies have taken on the issue¹ and developed industry-level PPPs, they are still at an early stage and typically cover only a limited set of industries and/or countries.²

Given these difficulties, indicators are usually confined to showing relative changes of cost competitiveness. While this constitutes a drawback if the task is to rank countries by their cost competitiveness at a particular point in time, it is not a major disadvantage for other purposes, in particular for the use of this indicator to analyse trade trends.³

In what follows, cost competitiveness will be approximated through different measures of relative unit labour cost, where unit labour costs are defined as the ratio of an industry's wage bill over its volume

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1. See, for example, Hooper (1996) or O'Mahony (1996).
 2. In addition to questions of data availability, there are methodological issues that are still under discussion, including the techniques to apply for multilateral comparisons. For a recent discussion, see Pilat and Rao (1996).
 3. This point was already made by Durand and Giorno (1987) who add: "...by restricting attention to changes in rather than levels of competitiveness, some of the biases resulting from failure to take non-price elements of competitiveness into account may be mitigated - to the extent that such non-price factors do not change rapidly or systematically when relative price competitiveness changes".

output. Underlying such an approximation is the assumption that the movements in unit labour costs are representative for movements in total average costs. Thus, other cost elements such as the user cost of capital or intermediate products are ignored or assumed to change in parallel with the cost of labour inputs. It should also be pointed out that cost competitiveness is different from price competitiveness: only if the relation between costs and prices changes little over time, i.e., if there is a constant mark-up over costs, will cost competitiveness move in parallel with price competitiveness. This will not be the case if, for example, producers squeeze their profit margins in reaction to exchange rate appreciation and with a view to maintaining relative price competitiveness. These caveats should be kept in mind when interpreting the indicators developed in this paper.

The value-added of the present indicators lies in their industry-specificity: available measures have typically been confined to the level of total manufacturing. However, as will be shown below, industry cost competitiveness developments can vary significantly between individual industries and greater disaggregation provides useful additional information for analysis.

Measuring price competitiveness

The indicators presented here draw on the analytical framework used, for example, by the OECD in its INTERLINK model, the United States Bureau of Labor Statistics and the International Monetary Fund⁴. Their main feature is a double-weighting procedure to reflect *i*) competitors' shares in export markets; and *ii*) the relative importance of a particular market for the country and industry under consideration. The weights are applied to cost indices to form a weighted average of competitors' cost movements against which a particular country's cost changes can be compared.

Three measures of cost competitiveness are presented here. They are all based on the double-weighting procedure but they differ in the extent to which markets and competitors are covered:

- *Total price competitiveness* measures relative developments of unit labour costs both on a country's home market and abroad. It combines measures of import price competitiveness and export price competitiveness because on each market, unit labour cost trends of all suppliers – domestic and foreign – are taken into account. While this measure is the most comprehensive measure of price competitiveness, it is also the most demanding in terms of data needs: industry-level production data are required to weigh domestic supply and industry-level data on trade flows are required to weigh foreign supply.⁵

4. For a more exhaustive discussion of different measures of price competitiveness, see Durand and Giorno (1987) and Durand, Simon and Webb (1992).

5. Combining production and trade data is no trivial matter: production data often come from statistical sources that are based on activity classifications, where statistical units (establishments or firms) are grouped into industries according to their primary activity. Export and import data come from product-based statistical sources with different statistical units and classifications. To allocate product-based trade data to individual industries, a correspondence is made that links export (products) to certain industries, for example steel exports to the steel industry. This correspondence is, however, imperfect and give rise to biases.

- *Export competitiveness* measures relative developments of unit labour costs on a country's export markets. On each export market, supply of the domestic producer and of foreign producers are taken into account in the weighting scheme. Thus, unlike *total price competitiveness*, the export competitiveness indicator does not include import competition and permits to focus on relative unit labour cost changes abroad only. There is little difference in data requirements between the *total competitiveness* and the *export competitiveness* indicators – both require combining production and trade data at the industry level.
- *Competitiveness among exporters* measures relative developments of unit labour costs on a country's export markets. Unlike the two other indicators, this one only takes foreign supply on a particular market into account. The weight and development of unit labour costs of domestic suppliers in each market is ignored. This specification assumes that, on a given market, exporters only compete with other exporters, not with domestic producers, giving rise to a notion of export competitiveness in the strict sense of the term. The advantage is that only data on export flows are needed for the calculation of weights – an important issue given the numerous shortcomings of combining trade and industry data (see endnote 5).

For each country and industry, three sets of weights, one for each measure of price competitiveness, were calculated. Because weights are based on market shares, they are themselves dependent on relative competitiveness. Hence, the use of fixed weights over an extended period of time may cause biases if there are long-term movements in relative unit labour costs. Rather than using fixed weights of a given year only, the present procedure uses flexible weights that change from year to year, reflecting the evolution of export flows and hence market shares.

Each set of weights is then applied to country and industry-specific indices of unit labour costs to obtain an aggregate measure of competitors' unit labour cost developments. Changes in unit labour costs are measured as the difference between the rate of change of average compensation per employed person and the rate of change labour productivity. Average compensation is expressed in a common currency, to capture the effects of exchange rate movements. It should be noted that the use of the sets of weights is not limited to unit labour costs. An alternative usage is the application to exchange rates only, giving rise to trade-weighted exchange rates – a common indicator for the extent to which a country's foreign trade is likely to be affected by exchange rate swings. Similarly, prices could be used instead of unit labour costs if such data are available.

Results

Relative unit labour costs and their development were evaluated, according to three different methods, for 18 countries and 25 industries on a yearly basis between 1979 and 1994. The wealth of series does not permit a full reproduction of results. However, three types of tables are provided in the Annex:

- At the level of total manufacturing, a decomposition of the series of relative unit labour costs (calculated according to the first method – *total price competitiveness*) into its components: average compensation per employed person, exchange rate movements and labour productivity growth (Annex Tables 1 to 18).

- At the industry level, Annex Tables 19 to 54 spell out the series of industry-specific trade-weighted unit labour costs for each country, calculated according to the first method – *total price competitiveness*, and according to the third method – *competitiveness among exporters*.

These tables give rise to several observations:

- At the level of total manufacturing, the trends emerging from the three OECD methods are quite similar, as illustrated in Figure 1 that compares results for Japan, France, the United Kingdom and the United States. For purposes of comparison, Figure 1 also plots the relative unit labour cost series from a different source, the United States Bureau of Labor Statistics (BLS). This comparison is only possible at the level of total manufacturing and for a limited number of countries. For most of them, trends are highly correlated, but exceptions can be found, especially among European countries. Differences can be due to different measures of unit labour costs (BLS features a preferred measure based on hourly compensation while OECD data is limited to compensation per employee) or to differences in the weighting scheme (the set of countries varies between BLS and OECD and BLS employs a fixed weighting pattern whereas the OECD indicators are based on annually changing weights).
- Regarding the comparison of the different methods, correlation coefficients were constructed to test whether the methods yield widely diverging results. Annex Table 56 shows how relative unit labour cost trends calculated with the first methodology (total price competitiveness) compares with the trends based on the third methodology (competitiveness among exporters). As it turns out, the series are highly correlated for most countries and industries. There are, however, exceptions. Canada is a case in point where correlation between the results of the two methods tends to be weak for some industries. To explain this divergence, note the exceptional importance of the United States as a market in the Canadian export composition. Add to this that the main difference between the two measures of relative unit labour costs is the inclusion (exclusion) of domestic suppliers on various export markets. Because domestic supply carries a large weight in most industries in the United States, this produces a marked difference between the two methods for the US market. This is true for all featuring countries, but receives the largest weight in the Canadian case because of the importance of the US market in Canadian exports.
- The conclusion is that the easy-to-calculate third method (competitiveness among exporters) goes a long way in depicting trends of industry-level relative unit labour costs that are reasonably close to the measure of total price competitiveness that is the theoretically preferred measure. However, for countries whose export market structure is highly concentrated in large markets (where domestic suppliers tend to be important) the measure of competitiveness among exporters may prove an insufficient approximation to total price competitiveness.

**ANNEX: RELATIVE TRADE-WEIGHTED UNIT LABOUR COSTS BY INDUSTRY:
METHODOLOGY**

Types of competition

The following methodological description relates to the derivation of relative unit labour cost measures. For notational simplicity, no industry-specific index has been introduced but it should be understood that all calculations relate to a particular industry. The theoretical basis to derive trade-weighted indicators of competitiveness has been thoroughly described in a methodological paper of the International Monetary Fund (McGuirk, 1986). It shows that, in a market with monopolistic competition with differentiated goods, the growth rate of the demand for country j 's product on the geographical market k ($\Delta \ln D_j^k$) can be expressed as a function of the rate of change of relative prices P_l^k / P_j^k .

$$\Delta \ln D_j^k = \sigma \sum_{l \neq j} s_l^k \Delta \ln \left(\frac{P_l^k}{P_j^k} \right) \quad (1)$$

where $l = 1, 2, \dots, N$ competitors;
 $j = 1, 2, \dots, N$ featuring countries;
 $k = 1, 2, \dots, M$ geographical markets;

$$s_l^k = \frac{X_l^k}{\sum_l X_l^k}; \quad X_l^k: \text{country } l \text{'s exports to market } k$$

Each pair of relative prices P_l^k / P_j^k between the featuring country j and its $N-1$ competitors is weighted with the respective competitor's market share s_l^k . σ is a constant term capturing the price elasticity of demand. Because $\sum_l s_l^k = \sum_{l \neq j} s_l^k + s_j^k = 1$, equation (1) can be rewritten as:

$$\Delta \ln D_j^k = \sigma \left\{ \sum_{l \neq j} s_l^k \Delta \ln P_l^k - (1 - s_j^k) \Delta \ln P_j^k \right\}$$

$$\text{or } \Delta \ln D_j^k = \sigma (1 - s_j^k) \left\{ \sum_{l \neq j} \frac{s_l^k}{1 - s_j^k} \Delta \ln P_l^k - \Delta \ln P_j^k \right\} \quad (2)$$

The expression in brackets on the right hand side of (2) is the starting point for the competitiveness indicator. It corresponds to the difference in price movements of the featuring country, $\Delta \ln P_j^k$, and a weighted average of those of its competitors: $\Delta \ln PC_j^k = \sum_{l \neq j} \frac{s_l^k}{1 - s_j^k} \Delta \ln P_l^k$. The division by $(1 - s_j^k)$ normalises market shares so that for each featuring country j , the set of $N-1$ competitors l

($l = 1, 2, \dots, j-1, j+1, \dots, N$) equals 100 percent. The featuring country is excluded from the set of competitors as it is obviously not in competition with itself.⁶

As a next step, normalised demand for the featuring country's product on the k different markets is aggregated to yield the overall changes in demand for j 's product, $\Delta \ln D_j$. Price changes in each market k enter with the weight w_j^k the share that each market k occupies in country j 's sales. It should be noted that this aggregation (equation (3)) includes country j 's home market where it competes with imports. In this sense, it describes price competition on the home market and on export markets which will be captured by a measure of *total price competitiveness*, combining measures of import and export price competitiveness.

$$\Delta \ln D_j = \sum_k w_j^k \left(\frac{\Delta \ln D_j^k}{\sigma(1-s_j^k)} \right) \quad (3)$$

$$\text{where: } w_j^k = \frac{X_j^k}{\sum_k X_j^k}$$

If the indicator is limited to export competition, aggregation is carried out over export markets only, excluding the featuring country's home market [equation (4)]:

$$\Delta \ln \tilde{D}_j = \sum_{k \neq j} \tilde{w}_j^k \left(\frac{\Delta \ln \tilde{D}_j^k}{\sigma(1-s_j^k)} \right) \quad (4)$$

$$\text{where } \tilde{w}_j^k = \frac{X_j^k}{\sum_{k \neq j} X_j^k}$$

Implicit in the notions of total and export competition is the assumption that on every market, domestic suppliers compete with importers. In contrast, the more narrow notion of *competition among exporters* only considers foreign suppliers on a market. It assumes a two stage-decision process: in a first stage, consumers decide on the overall spending on imported goods and in a second stage, they allocate this expenditure to the different imported goods. The implication is that the overall volume of imports to every market can be considered pre-determined and there is no direct price competition between domestic products and imported ones. Unsurprisingly, the adoption of this hypothesis can significantly change the weights of competitor countries. In this case of *competition among exporters*, equation (1) reads as:

$$\Delta \ln \tilde{\tilde{D}}_j^k = \sigma \sum_{l \neq j} \tilde{s}_l^k \Delta \ln \left(\frac{P_l^k}{P_j^k} \right) \quad (5)$$

6. One consequence is that weights attached to competing countries on third markets depend on the featured country. It should also be noted that the information incorporated in $(1-s_j^k)$, i.e., the share that the featuring country's competitors as a whole occupy in the market, is lost from the calculation. Alternatively, it could be argued that a competitor's sales are determined by the price that he charges relative to the *average* market price. In this case, the featuring country's price would be part of the average market price, defined as $\sum_l s_l^k \Delta \ln P_l^k$, and no normalisation would be requested. However, in the present context, normalisation is retained.

where $\tilde{s}_l^k = \frac{X_l^k}{\sum_{l \neq k} X_l^k}$; $\tilde{s}_k^k = 0$.

The share of the domestic supplier, s_k^k , is set to equal zero, thus limiting the set of competitors to those who export to market k . Normalisation and aggregation is as before and yields:

$$\Delta \ln \tilde{D}_j = \sum_{k \neq j} \tilde{w}_j^k \left(\frac{\Delta \ln \tilde{D}_j^k}{\sigma(1 - \tilde{s}_j^k)} \right) \quad (6)$$

where $\tilde{w}_j^k = \frac{X_j^k}{\sum_{k \neq j} X_j^k}$

Competitors' weights

Based on these notions of competition, three weighting schemes can be derived as a basis for measures of price competitiveness. Starting with the measure of *total price competitiveness*, equation (3) can be written as:

$$\Delta \ln D_j = \sum_k w_j^k \left(\sum_{l \neq k} \frac{s_l^k}{1 - s_j^k} \Delta \ln P_l^k - \Delta \ln P_j^k \right) \quad (7)$$

An important simplification for an empirical implementation consists in assuming that if a competitor country changes the price of his product, this price change applies to all its (export) markets. Formally, this amounts to stating $\Delta \ln P_l^k = \Delta \ln P_l$ and equation (7) now reads as:

$$\Delta \ln D_j = \sum_{l \neq j} \sum_k w_j^k \frac{s_l^k}{1 - s_j^k} \Delta \ln P_l - \Delta \ln P_j \quad (8)$$

From equation (8) it is possible to identify, for each featuring country j , a set of weights, TW_j with elements $TW_{j,l}$, one for each featuring country j and its competitors' price change $\Delta \ln P_l$. Similarly, weights $T\tilde{W}_j$ and $T\tilde{\tilde{W}}_j$ can be derived as bases for *measures of export competitiveness* and *competitiveness among exporters*.

Table 1 shows the full definitions.

Empirically, weights are calculated for every year in the period under consideration. The advantage of flexible weights is that they allow for changes in the structure of foreign trade and competition – changes which may arise as a consequence of changes in competitiveness. A selection of weights at the level of total manufacturing is shown in Annex Tables 1 to 18. As it turns out, they are both sensitive to the type of competitiveness indicator and to the underlying year.

Table 1. **Competitors' weights**

Weights for competitors l to measure country j 's:	Weight	Definition
Total price competitiveness	$TW_{j,l}$	$\sum_k w_j^k s_l^k / (1 - s_j^k)$
Export price competitiveness	$T\tilde{W}_{j,l}$	$\sum_{k \neq j} \tilde{w}_j^k s_l^k / (1 - s_j^k)$
Price competitiveness among exporters	$T\tilde{\tilde{W}}_{j,l}$	$\sum_{k \neq j} \tilde{\tilde{w}}_j^k \tilde{s}_l^k / (1 - \tilde{s}_j^k)$

Trade-weighted relative unit labour costs

As a final step, indicators of competitiveness are derived by substituting rates of change in unit labour costs for the changes in prices. Thus, $\Delta \ln P_l$ is replaced by $\Delta \ln UCL_l$ where $UCL_l = \frac{w_l L_l}{Q_l} e_l$. $w_l L_l$ is country l 's wage bill at current prices, Q_l its constant price output (value-added), and e_l its current exchange rate with respect to a common currency. Formulated as growth rates, the change in unit labour costs is the difference between changes in the wage rate and changes in labour productivity: $\Delta \ln UCL_l = \Delta \ln w_l - \Delta \ln(Q_l / L_l)$. The final indicators of relative trade-weighted unit labour costs $RULC$ are as shown in Table 2.

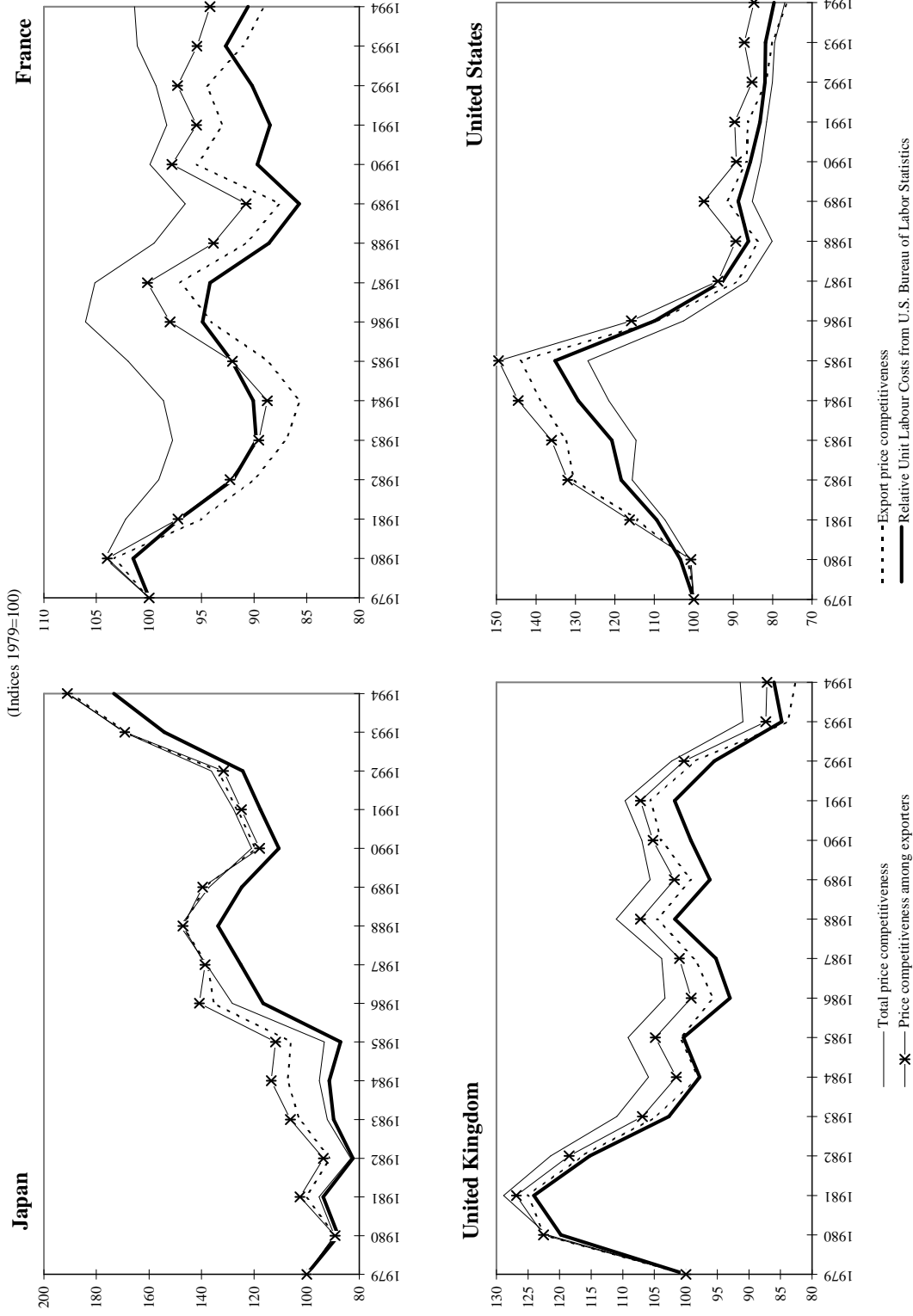
Table 2. **Relative unit labour cost: three measures**

Measure of country j 's:	Definition
Total price competitiveness	$\Delta \ln RULC_j = \Delta \ln ULC_j - \sum_{l \neq j} TW_{j,l} \Delta \ln ULC_l;$
Export price competitiveness	$\Delta \ln RULC_j = \Delta \ln ULC_j - \sum_{l \neq j} T\tilde{W}_{j,l} \Delta \ln ULC_l;$
Price competitiveness among exporters	$\Delta \ln RULC_j = \Delta \ln ULC_j - \sum_{l \neq j} T\tilde{\tilde{W}}_{j,l} \Delta \ln ULC_l;$

REFERENCES

- Durand, M. and C. Giorno (1987), "Indicators of International Competitiveness: Conceptual Aspects and Evaluation", *OECD Economic Studies* No.9.
- Durand, M., J. Simon and C. Webb (1992), "OECD's Indicators of International Trade and Competitiveness", *OECD Economics Department Working Papers* No 120.
- Hooper, P. (1996), "Comparing Manufacturing Output Levels Among the Major Industrial Countries", in OECD (1996), *Industry Productivity: International Comparisons and Measurement Issues*.
- OECD (1996), *Technology and Industrial Performance*, Paris.
- O'Mahony, M. (1996), "Conversion Factors in Relative Productivity Calculations: Theory and Practice", in OECD (1996), *Industry Productivity: International Comparisons and Measurement Issues*.
- Pilat, D. and P. Rao (1996), "Multilateral Comparisons of Output, Productivity and Purchasing Power Parities in Manufacturing", *Review of Income and Wealth*, June.
- McGuirk, A. (1986), "Measuring Price Competitiveness for Industrial Country Trade in Manufactures", *IMF Working Paper* WP/87/34.
- United States Department of Labor, Bureau of Labor Statistics (1996), *International Comparisons of Manufacturing Productivity and Unit Labor Cost Trends*.

Figure 1. Trade-Weighted Relative Unit Labour Costs, in Total Manufacturing



Sources : OECD and United States Bureau of Labor Statistics

ANNEX TABLES 1-18

**TRADE-WEIGHTED RELATIVE UNIT LABOUR COST IN TOTAL MANUFACTURING
METHOD: *TOTAL PRICE COMPETITIVENESS***

Table 1.	.....	Australia
Table 2.	.....	Austria
Table 3.	.....	Belgium / Luxembourg
Table 4.	.....	Canada
Table 5.	.....	Denmark
Table 6.	.....	Finland
Table 7.	.....	France
Table 8.	.....	Western Germany
Table 9.	.....	Greece
Table 10.	.....	Italy
Table 11.	.....	Japan
Table 12.	.....	Netherlands
Table 13.	.....	Norway
Table 14.	.....	Portugal
Table 15.	.....	Spain
Table 16.	.....	Sweden
Table 17.	.....	United Kingdom
Table 18.	.....	United States

Annex Table 1

Australia

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	81.5	72.0	113.1
1980	82.5	71.2	115.7
1981	84.2	73.5	114.5
1982	86.0	75.3	114.2
1983	84.5	79.0	106.9
1984	87.6	83.0	105.5
1985	92.1	86.8	106.1
1986	93.4	87.3	106.9
1987	96.3	91.3	105.4
1988	99.7	95.6	104.2
1989	101.7	97.8	104.0
1990	100.0	100.0	100.0
1991	103.1	100.9	102.2
1992	105.8	102.1	103.6
1993	110.2	103.0	107.1
1994	118.4	107.3	110.4

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	51.2	71.3	71.9
1980	54.5	79.5	68.5
1981	61.5	85.3	72.1
1982	68.7	89.2	76.9
1983	76.9	89.8	85.6
1984	78.2	90.8	86.1
1985	79.9	91.5	87.3
1986	84.4	95.5	88.5
1987	86.7	94.9	91.4
1988	88.2	94.4	93.5
1989	91.4	96.5	94.7
1990	100.0	100.0	100.0
1991	102.3	104.2	98.1
1992	102.4	107.5	95.3
1993	101.6	109.8	92.5
1994	97.3	108.9	89.4

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	73.3	66.6	110.2
1980	79.5	74.4	106.9
1981	90.5	73.7	122.8
1982	89.2	71.4	124.9
1983	88.7	69.4	127.8
1984	88.0	67.5	130.3
1985	71.5	67.2	106.5
1986	72.3	83.4	86.7
1987	77.8	91.4	85.2
1988	88.3	96.4	91.6
1989	92.5	93.9	98.5
1990	100.0	100.0	100.0
1991	102.1	105.6	96.6
1992	96.4	112.3	85.8
1993	88.5	116.1	76.2
1994	91.2	119.5	76.3

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	69.8	108.7	64.3
1980	68.6	110.8	61.9
1981	67.9	118.9	57.1
1982	77.0	130.9	58.8
1983	86.6	134.3	64.5
1984	89.0	140.7	63.2
1985	111.8	143.5	77.9
1986	116.8	115.8	100.8
1987	111.5	104.2	107.0
1988	99.9	98.7	101.2
1989	98.7	103.4	95.4
1990	100.0	100.0	100.0
1991	100.2	98.8	101.5
1992	106.3	96.1	110.6
1993	114.8	97.8	117.4
1994	106.8	95.9	111.4

	Trade Weights	
	1970	1994
Australia	-	-
Austria	0.4	0.6
Belgium	0.9	1.6
Canada	5.5	2.0
Denmark	0.4	0.6
Finland	0.6	1.2
France	2.5	3.8
Western Germany	8.9	9.8
Greece	0.2	0.1
Italy	3.0	4.6
Japan	20.4	31.6
Netherlands	1.9	1.8
Norway	0.3	0.3
Portugal	0.1	0.2
Spain	0.5	0.9
Sweden	2.1	2.6
United Kingdom	24.3	9.2
United States	28.0	29.3

Annex Table 2

Austria

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	68.7	79.6	86.4
1980	70.2	78.5	89.5
1981	70.0	79.6	87.9
1982	72.9	80.5	90.7
1983	76.8	84.5	90.8
1984	79.5	88.1	90.2
1985	82.9	90.7	91.3
1986	83.6	91.4	91.4
1987	84.7	91.8	92.3
1988	92.5	95.5	96.8
1989	96.1	98.0	98.1
1990	100.0	100.0	100.0
1991	103.0	101.6	101.3
1992	106.2	102.2	103.9
1993	107.4	102.0	105.3
1994	115.2	109.0	105.7

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	76.9	65.2	118.0
1980	82.0	72.2	113.5
1981	86.6	77.0	112.5
1982	91.4	82.0	111.5
1983	92.5	83.0	111.5
1984	92.1	84.6	108.8
1985	95.2	87.0	109.4
1986	98.4	90.2	109.1
1987	101.1	94.2	107.4
1988	96.0	94.4	101.7
1989	96.5	96.3	100.2
1990	100.0	100.0	100.0
1991	104.2	104.4	99.8
1992	109.5	109.5	99.9
1993	113.8	112.8	100.8
1994	112.2	109.9	102.1

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	65.4	64.9	100.8
1980	72.0	72.3	99.7
1981	61.8	63.3	97.6
1982	60.9	60.9	99.9
1983	58.6	57.4	102.1
1984	52.3	53.2	98.4
1985	52.3	52.9	98.8
1986	73.3	70.3	104.3
1987	91.0	86.0	105.8
1988	88.4	88.7	99.7
1989	82.9	85.0	97.5
1990	100.0	100.0	100.0
1991	101.5	102.3	99.3
1992	113.2	112.3	100.8
1993	111.2	107.1	103.8
1994	111.7	105.9	105.4

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	117.6	101.0	116.4
1980	113.8	100.9	112.8
1981	140.1	123.6	113.4
1982	150.0	136.4	110.0
1983	158.0	146.5	107.9
1984	176.0	162.3	108.5
1985	182.0	168.2	108.2
1986	134.3	129.1	104.0
1987	111.2	109.7	101.4
1988	108.6	106.7	101.8
1989	116.4	113.6	102.4
1990	100.0	100.0	100.0
1991	102.7	102.1	100.5
1992	96.7	97.7	99.0
1993	102.3	106.9	95.7
1994	100.5	105.8	95.0

	Trade Weights	
	1970	1994
Australia	0.2	0.2
Austria	-	-
Belgium	2.6	3.3
Canada	0.6	0.6
Denmark	1.9	1.0
Finland	1.0	0.9
France	5.4	7.2
Western Germany	54.3	52.6
Greece	0.3	0.4
Italy	9.2	11.2
Japan	1.8	4.3
Netherlands	2.8	3.6
Norway	0.8	0.5
Portugal	0.7	0.5
Spain	0.6	1.9
Sweden	4.4	2.1
United Kingdom	9.2	4.5
United States	4.3	5.2

Annex Table 3

Belgium / Luxembourg

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94

(Indexes: 1990=100)

Competitors: Australia, Austria, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	61.5	76.7	80.1
1980	64.6	75.8	85.2
1981	68.3	77.5	88.1
1982	73.6	78.9	93.3
1983	79.5	83.1	95.6
1984	83.1	86.5	96.0
1985	85.8	89.0	96.4
1986	87.5	90.1	97.1
1987	89.1	91.3	97.6
1988	94.3	95.6	98.6
1989	98.5	98.4	100.1
1990	100.0	100.0	100.0
1991	101.1	101.1	100.0
1992	102.7	102.4	100.3
1993	103.5	103.0	100.5
1994	111.9	109.4	102.2

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	83.8	66.4	126.3
1980	88.0	73.3	120.1
1981	88.2	78.4	112.5
1982	88.1	83.5	105.4
1983	87.3	84.6	103.3
1984	90.2	86.3	104.6
1985	93.3	88.9	105.0
1986	94.6	92.0	102.8
1987	96.6	95.2	101.4
1988	94.9	94.7	100.2
1989	95.3	96.0	99.3
1990	100.0	100.0	100.0
1991	106.2	104.8	101.3
1992	109.9	108.8	101.0
1993	111.2	111.3	99.9
1994	107.2	108.8	98.5

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	95.5	68.3	139.9
1980	100.6	77.1	130.4
1981	79.3	69.0	115.1
1982	64.4	66.3	97.2
1983	57.1	61.9	92.2
1984	52.2	57.8	90.3
1985	52.5	57.7	90.9
1986	70.8	73.6	96.1
1987	86.5	87.5	98.9
1988	86.2	89.7	96.1
1989	80.8	85.9	94.2
1990	100.0	100.0	100.0
1991	103.9	102.8	101.0
1992	114.2	111.2	102.7
1993	107.4	105.7	101.6
1994	107.1	105.0	101.9

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	87.7	97.3	90.2
1980	87.5	96.0	91.2
1981	111.1	115.7	96.0
1982	136.7	128.4	106.5
1983	153.0	139.4	109.8
1984	172.9	154.1	112.2
1985	177.7	159.2	111.6
1986	133.7	125.9	106.2
1987	111.7	109.0	102.5
1988	110.0	105.8	104.0
1989	117.9	112.2	105.0
1990	100.0	100.0	100.0
1991	102.2	102.0	100.2
1992	96.2	98.0	98.2
1993	103.5	106.9	96.8
1994	100.1	105.8	94.7

	Trade Weights	
	1970	1994
Australia	0.4	0.5
Austria	0.7	1.5
Belgium	-	-
Canada	1.0	0.7
Denmark	0.7	1.1
Finland	0.6	0.9
France	19.8	18.6
Western Germany	30.8	26.5
Greece	0.4	0.5
Italy	6.2	7.7
Japan	2.3	5.9
Netherlands	15.2	8.5
Norway	0.7	0.6
Portugal	0.3	0.9
Spain	0.8	3.4
Sweden	2.2	2.2
United Kingdom	6.8	10.4
United States	11.1	10.2

Annex Table 4

Canada

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	85.3	72.2	118.0
1980	81.7	71.5	114.3
1981	84.7	74.4	113.9
1982	80.0	76.0	105.3
1983	86.9	81.0	107.2
1984	95.2	85.2	111.8
1985	98.0	88.5	110.8
1986	96.4	88.9	108.5
1987	98.1	94.4	103.9
1988	98.8	98.7	100.0
1989	98.5	99.0	99.4
1990	100.0	100.0	100.0
1991	100.0	100.0	99.9
1992	105.0	102.6	102.3
1993	111.8	105.0	106.5
1994	118.0	109.9	107.4

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	58.3	72.9	79.9
1980	67.0	81.5	82.2
1981	73.6	86.2	85.4
1982	85.3	91.2	93.5
1983	84.3	90.5	93.1
1984	81.4	90.7	89.8
1985	83.2	92.1	90.4
1986	87.8	95.5	91.9
1987	89.6	93.2	96.1
1988	93.2	93.1	100.1
1989	96.3	96.2	100.1
1990	100.0	100.0	100.0
1991	105.9	104.6	101.3
1992	105.0	107.6	97.6
1993	101.6	108.6	93.6
1994	99.3	107.3	92.6

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	58.0	72.6	79.9
1980	66.9	81.2	82.4
1981	71.6	83.3	86.0
1982	80.6	86.2	93.5
1983	79.8	84.7	94.3
1984	73.3	83.9	87.4
1985	71.1	84.6	84.1
1986	73.7	91.1	80.9
1987	78.9	91.8	85.9
1988	88.4	93.3	94.7
1989	94.9	94.9	100.0
1990	100.0	100.0	100.0
1991	107.9	104.8	102.9
1992	101.4	108.9	93.1
1993	91.9	109.8	83.7
1994	84.8	109.4	77.6

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	100.4	100.9	99.5
1980	100.2	101.6	98.7
1981	102.8	104.9	98.0
1982	105.7	108.7	97.3
1983	105.6	109.9	96.1
1984	111.0	112.1	99.0
1985	117.0	113.7	103.0
1986	119.1	106.0	112.4
1987	113.6	101.6	111.8
1988	105.5	100.0	105.5
1989	101.5	101.7	99.8
1990	100.0	100.0	100.0
1991	98.2	99.8	98.4
1992	103.6	98.9	104.7
1993	110.6	99.8	110.8
1994	117.0	99.3	117.9

	Trade Weights	
	1970	1994
Australia	1.1	0.4
Austria	0.4	0.2
Belgium	0.6	0.5
Canada	-	-
Denmark	0.2	0.2
Finland	0.2	0.2
France	1.7	1.5
Western Germany	3.5	2.6
Greece	0.1	0.0
Italy	1.4	1.5
Japan	5.4	6.8
Netherlands	0.7	0.5
Norway	0.1	0.2
Portugal	0.1	0.1
Spain	0.4	0.3
Sweden	0.9	0.5
United Kingdom	7.2	2.1
United States	76.2	82.4

Annex Table 5

Denmark

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	89.5	75.4	118.7
1980	95.4	74.7	127.8
1981	95.8	76.2	125.8
1982	97.8	78.3	124.9
1983	104.1	82.9	125.6
1984	103.7	86.8	119.5
1985	101.2	89.3	113.4
1986	97.8	90.3	108.3
1987	95.1	91.8	103.6
1988	98.8	95.4	103.5
1989	101.1	98.2	102.9
1990	100.0	100.0	100.0
1991	102.3	101.4	100.9
1992	104.8	103.7	101.1
1993	110.4	105.4	104.8
1994	112.2	112.6	99.6

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	54.8	63.4	86.5
1980	57.4	70.7	81.2
1981	62.2	76.0	81.8
1982	67.4	80.0	84.3
1983	68.7	80.9	84.9
1984	73.0	82.9	88.0
1985	77.4	85.7	90.3
1986	83.9	89.4	93.9
1987	92.2	92.6	99.7
1988	92.0	93.4	98.5
1989	94.1	95.5	98.5
1990	100.0	100.0	100.0
1991	102.0	105.1	97.0
1992	103.7	108.3	95.7
1993	99.8	109.7	91.0
1994	101.3	107.1	94.6

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	64.5	67.9	95.0
1980	63.0	77.2	81.6
1981	54.0	69.7	77.5
1982	50.1	65.1	76.9
1983	46.5	60.1	77.4
1984	43.6	56.7	77.0
1985	45.2	56.8	79.7
1986	64.2	72.2	88.9
1987	83.5	85.4	97.7
1988	84.6	89.3	94.7
1989	79.6	86.1	92.5
1990	100.0	100.0	100.0
1991	98.6	103.2	95.5
1992	106.3	110.4	96.3
1993	95.3	102.0	93.3
1994	98.6	101.6	97.1

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	85.0	93.9	90.6
1980	91.1	92.8	98.1
1981	115.1	111.3	103.4
1982	134.6	125.0	107.7
1983	147.8	136.9	107.9
1984	167.3	150.1	111.5
1985	171.2	155.5	110.1
1986	130.7	124.6	104.9
1987	110.5	108.5	101.9
1988	108.8	104.9	103.7
1989	118.1	111.3	106.1
1990	100.0	100.0	100.0
1991	103.4	101.9	101.5
1992	97.5	98.3	99.2
1993	104.8	110.1	95.1
1994	102.8	108.7	94.6

	Trade Weights	
	1970	1994
Australia	0.3	0.5
Austria	2.0	1.6
Belgium	3.1	3.6
Canada	0.8	0.5
Denmark	-	-
Finland	2.9	3.2
France	5.3	7.9
Western Germany	21.5	27.1
Greece	0.2	0.5
Italy	4.4	6.3
Japan	2.7	6.4
Netherlands	3.6	5.4
Norway	5.5	4.5
Portugal	0.8	1.1
Spain	0.8	2.0
Sweden	19.3	11.7
United Kingdom	19.1	10.1
United States	7.6	7.8

Annex Table 6

Finland

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	60.4	76.4	79.1
1980	62.5	75.9	82.3
1981	65.3	77.3	84.5
1982	67.0	79.4	84.4
1983	70.1	84.0	83.4
1984	73.9	88.0	84.0
1985	77.5	90.1	86.0
1986	81.8	90.9	90.0
1987	88.2	92.1	95.8
1988	94.2	95.7	98.5
1989	99.2	98.3	101.0
1990	100.0	100.0	100.0
1991	96.2	101.7	94.6
1992	108.4	104.0	104.3
1993	122.3	105.8	115.6
1994	136.0	112.5	120.9

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	58.0	61.8	93.8
1980	63.1	69.2	91.1
1981	69.0	74.5	92.6
1982	74.3	78.8	94.3
1983	77.4	80.1	96.6
1984	80.6	81.8	98.5
1985	84.2	85.0	99.1
1986	86.1	88.8	97.0
1987	86.4	92.1	93.8
1988	88.7	93.0	95.3
1989	92.4	95.4	96.9
1990	100.0	100.0	100.0
1991	105.9	105.2	100.7
1992	97.4	108.3	90.0
1993	91.3	109.2	83.6
1994	86.8	107.0	81.2

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	56.9	67.9	83.8
1980	64.6	76.5	84.5
1981	61.1	69.8	87.6
1982	58.9	64.4	91.5
1983	53.1	59.3	89.6
1984	51.2	55.6	92.1
1985	51.9	55.7	93.3
1986	64.9	71.7	90.5
1987	75.2	85.2	88.2
1988	81.1	89.5	90.6
1989	82.4	86.4	95.4
1990	100.0	100.0	100.0
1991	100.1	103.4	96.8
1992	83.2	110.8	75.1
1993	61.1	102.1	59.8
1994	63.6	102.4	62.1

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	101.9	91.6	111.2
1980	97.6	92.0	106.0
1981	112.9	109.0	103.6
1982	126.1	124.6	101.2
1983	145.7	137.2	106.1
1984	157.2	150.5	104.5
1985	162.1	156.5	103.6
1986	132.6	124.5	106.5
1987	115.0	108.2	106.2
1988	109.4	104.3	104.9
1989	112.2	110.9	101.2
1990	100.0	100.0	100.0
1991	105.8	101.7	104.0
1992	117.2	97.9	119.7
1993	149.4	109.4	136.6
1994	136.6	107.8	126.8

	Trade Weights	
	1970	1994
Australia	0.5	0.9
Austria	2.0	1.7
Belgium	2.8	3.5
Canada	0.7	0.8
Denmark	4.1	4.4
Finland	-	-
France	5.6	7.1
Western Germany	22.3	21.9
Greece	0.2	0.3
Italy	3.5	5.9
Japan	3.5	7.9
Netherlands	3.2	4.6
Norway	3.1	3.1
Portugal	0.9	0.9
Spain	0.7	2.1
Sweden	21.2	14.5
United Kingdom	18.6	10.7
United States	6.9	9.7

Annex Table 7

France

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	76.0	74.0	102.6
1980	76.4	73.9	103.3
1981	78.4	75.9	103.3
1982	80.3	77.7	103.4
1983	82.2	82.2	100.1
1984	83.1	86.4	96.2
1985	85.1	89.2	95.4
1986	86.5	90.4	95.7
1987	87.9	91.9	95.6
1988	94.5	95.9	98.5
1989	98.8	98.4	100.4
1990	100.0	100.0	100.0
1991	99.7	101.4	98.3
1992	100.9	103.0	97.9
1993	101.7	103.5	98.3
1994	109.4	109.8	99.6

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	54.7	66.6	82.1
1980	62.7	73.2	85.7
1981	70.0	77.7	90.1
1982	77.6	82.1	94.5
1983	83.0	82.9	100.2
1984	89.3	84.3	105.9
1985	94.1	86.9	108.3
1986	96.6	89.8	107.5
1987	99.0	93.0	106.5
1988	96.1	93.3	103.0
1989	96.5	95.4	101.1
1990	100.0	100.0	100.0
1991	105.3	105.1	100.2
1992	107.7	109.4	98.4
1993	109.6	112.1	97.8
1994	106.5	109.7	97.1

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	70.0	69.9	100.1
1980	80.8	77.5	104.3
1981	70.2	68.6	102.3
1982	64.3	64.9	99.2
1983	59.3	60.6	97.9
1984	55.6	56.3	98.7
1985	57.0	55.9	102.1
1986	75.9	71.5	106.1
1987	89.7	85.2	105.2
1988	87.9	88.2	99.6
1989	82.3	85.2	96.7
1990	100.0	100.0	100.0
1991	101.7	103.3	98.4
1992	110.8	111.4	99.4
1993	105.4	104.2	101.2
1994	104.5	102.9	101.5

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	78.1	95.8	81.6
1980	77.6	95.4	81.3
1981	99.8	115.4	86.5
1982	120.7	129.0	93.5
1983	140.0	139.5	100.4
1984	160.5	154.4	104.0
1985	165.0	160.8	102.6
1986	127.2	126.6	100.4
1987	110.4	109.3	101.0
1988	109.4	106.1	103.1
1989	117.2	112.4	104.2
1990	100.0	100.0	100.0
1991	103.6	101.8	101.8
1992	97.2	98.4	98.8
1993	104.0	109.5	95.0
1994	102.0	109.1	93.5

	Trade Weights	
	1970	1994
Australia	0.7	0.4
Austria	0.7	1.4
Belgium	16.1	11.0
Canada	1.0	0.6
Denmark	0.7	1.1
Finland	0.8	0.9
France	-	-
Western Germany	32.8	27.4
Greece	0.3	0.4
Italy	14.0	13.6
Japan	1.8	4.9
Netherlands	7.4	6.5
Norway	0.7	0.6
Portugal	0.4	1.5
Spain	1.5	7.5
Sweden	2.7	1.9
United Kingdom	6.8	11.0
United States	11.6	9.5

Annex Table 8

Western Germany

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94

(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Greece, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	87.1	70.7	123.2
1980	84.5	71.6	118.0
1981	85.1	73.8	115.3
1982	84.7	76.2	111.1
1983	89.0	80.6	110.4
1984	92.0	84.5	109.0
1985	94.2	87.1	108.2
1986	94.2	88.3	106.6
1987	92.4	90.6	102.0
1988	95.5	95.3	100.2
1989	97.4	98.5	98.9
1990	100.0	100.0	100.0
1991	102.3	100.9	101.3
1992	101.2	103.3	98.0
1993	99.0	104.9	94.4
1994	106.7	111.2	96.0

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	69.6	66.7	104.3
1980	76.8	73.1	105.1
1981	80.1	78.4	102.2
1982	84.8	83.1	102.1
1983	84.4	84.6	99.8
1984	85.5	86.3	99.1
1985	87.0	89.2	97.5
1986	90.1	92.3	97.7
1987	95.8	94.4	101.5
1988	96.1	93.8	102.4
1989	97.5	95.4	102.2
1990	100.0	100.0	100.0
1991	103.2	105.5	97.8
1992	110.4	108.5	101.7
1993	115.2	110.3	104.4
1994	111.6	108.0	103.3

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	61.3	72.9	84.1
1980	68.3	80.6	84.8
1981	57.3	72.0	79.6
1982	56.5	67.7	83.4
1983	53.4	62.9	84.9
1984	48.5	58.8	82.5
1985	47.7	59.0	80.9
1986	67.1	75.0	89.3
1987	86.2	87.4	98.6
1988	88.4	89.8	98.4
1989	83.8	86.2	97.1
1990	100.0	100.0	100.0
1991	100.5	103.8	96.8
1992	114.2	110.6	103.2
1993	112.6	103.5	108.7
1994	111.1	103.1	107.8

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	113.4	91.0	124.6
1980	112.5	91.3	123.3
1981	139.9	109.5	127.7
1982	150.2	124.2	120.9
1983	158.0	136.4	115.8
1984	176.1	150.6	117.0
1985	182.2	155.9	116.9
1986	134.4	123.8	108.5
1987	111.2	108.2	102.8
1988	108.7	104.9	103.6
1989	116.4	111.2	104.6
1990	100.0	100.0	100.0
1991	102.7	101.7	101.0
1992	96.7	98.3	98.3
1993	102.3	108.9	94.0
1994	100.4	107.9	93.1

	Trade Weights	
	1970	1994
Australia	0.5	0.5
Austria	3.7	6.8
Belgium	13.8	9.3
Canada	1.5	0.7
Denmark	1.7	2.8
Finland	1.3	1.6
France	18.1	15.9
Western Germany	-	-
Greece	0.4	0.7
Italy	14.1	13.6
Japan	3.5	8.2
Netherlands	14.9	10.7
Norway	2.0	1.0
Portugal	0.4	1.3
Spain	1.2	3.8
Sweden	3.9	3.3
United Kingdom	6.4	9.9
United States	12.6	9.9

Annex Table 9

Greece

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	90.7	74.5	121.8
1980	89.9	74.8	120.2
1981	89.2	76.4	116.8
1982	90.6	77.8	116.5
1983	91.7	81.4	112.6
1984	92.8	85.4	108.7
1985	97.0	88.5	109.6
1986	99.0	89.9	110.1
1987	95.4	91.3	104.5
1988	99.3	95.6	103.9
1989	101.4	98.3	103.1
1990	100.0	100.0	100.0
1991	105.1	101.2	103.8
1992	106.6	102.8	103.7
1993	103.2	103.5	99.7
1994	105.4	110.3	95.5

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	13.3	64.8	20.6
1980	16.6	71.5	23.3
1981	20.6	77.8	26.5
1982	27.0	82.4	32.7
1983	32.1	84.3	38.0
1984	39.9	86.0	46.5
1985	45.7	88.1	51.8
1986	50.7	91.0	55.7
1987	58.9	94.1	62.6
1988	67.5	93.9	71.9
1989	81.4	95.7	85.1
1990	100.0	100.0	100.0
1991	114.3	105.1	108.8
1992	131.4	109.1	120.5
1993	155.9	111.4	139.9
1994	174.0	108.7	160.1

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	57.1	66.5	85.9
1980	61.9	74.9	82.6
1981	59.0	66.9	88.1
1982	64.1	64.1	99.9
1983	57.8	60.0	96.2
1984	56.2	55.9	100.5
1985	52.4	55.0	95.3
1986	57.4	71.9	79.9
1987	69.0	86.1	80.1
1988	75.4	88.3	85.4
1989	79.5	84.9	93.5
1990	100.0	100.0	100.0
1991	99.4	103.2	96.4
1992	109.3	111.1	98.4
1993	107.8	103.8	103.8
1994	113.7	101.3	112.3

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	23.4	98.1	23.8
1980	26.9	96.8	27.8
1981	35.0	118.0	29.6
1982	42.1	130.7	32.2
1983	55.6	142.4	39.0
1984	71.1	157.0	45.3
1985	87.1	163.8	53.2
1986	88.3	127.4	69.3
1987	85.4	109.4	78.1
1988	89.5	106.6	83.9
1989	102.5	113.0	90.7
1990	100.0	100.0	100.0
1991	115.0	101.9	112.8
1992	120.3	98.3	122.3
1993	144.6	109.6	132.0
1994	153.0	110.2	138.9

	Trade Weights	
	1970	1994
Australia	0.8	0.3
Austria	1.9	1.6
Belgium	4.1	4.7
Canada	1.3	0.5
Denmark	0.9	1.6
Finland	1.1	1.1
France	9.0	10.7
Western Germany	22.5	22.9
Greece	-	-
Italy	11.7	20.9
Japan	18.6	4.9
Netherlands	3.9	7.7
Norway	3.7	0.7
Portugal	0.2	0.6
Spain	0.6	4.0
Sweden	1.6	2.2
United Kingdom	8.8	8.8
United States	9.2	7.0

Annex Table 10

Italy

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	65.5	77.0	85.0
1980	67.9	76.3	89.0
1981	69.0	78.1	88.4
1982	70.0	79.8	87.7
1983	73.5	84.0	87.5
1984	80.2	86.9	92.3
1985	84.0	89.4	93.9
1986	86.7	90.4	95.9
1987	91.1	91.3	99.7
1988	95.8	95.7	100.1
1989	98.6	98.4	100.3
1990	100.0	100.0	100.0
1991	101.3	101.3	100.0
1992	105.2	102.4	102.8
1993	107.2	102.7	104.4
1994	113.2	109.4	103.5

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	42.8	66.3	64.6
1980	48.0	73.3	65.5
1981	56.8	78.3	72.5
1982	65.5	83.1	78.9
1983	72.8	84.0	86.6
1984	76.2	86.1	88.5
1985	81.0	88.9	91.2
1986	83.2	92.0	90.4
1987	85.7	95.2	90.0
1988	87.6	94.7	92.4
1989	93.3	96.0	97.2
1990	100.0	100.0	100.0
1991	108.0	104.6	103.3
1992	110.9	109.0	101.7
1993	113.3	111.7	101.4
1994	110.1	109.5	100.5

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	61.7	69.1	89.4
1980	67.2	77.8	86.4
1981	59.8	69.2	86.5
1982	58.0	65.7	88.3
1983	57.4	61.0	94.1
1984	52.0	57.2	90.8
1985	50.8	57.3	88.7
1986	66.9	73.2	91.4
1987	79.3	87.1	91.0
1988	80.6	89.3	90.3
1989	81.4	85.2	95.5
1990	100.0	100.0	100.0
1991	104.3	102.6	101.7
1992	107.8	111.6	96.5
1993	86.3	107.1	80.5
1994	81.8	106.6	76.7

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	69.3	96.6	71.8
1980	71.5	95.5	74.8
1981	94.9	115.6	82.0
1982	112.9	129.1	87.4
1983	126.8	140.7	90.1
1984	146.6	155.5	94.3
1985	159.4	160.7	99.2
1986	124.4	126.8	98.2
1987	108.2	109.5	98.8
1988	108.6	106.4	102.1
1989	114.5	113.0	101.4
1990	100.0	100.0	100.0
1991	103.5	102.0	101.5
1992	102.9	97.8	105.2
1993	131.3	105.6	124.4
1994	134.6	104.3	129.0

	Trade Weights	
	1970	1994
Australia	0.7	0.6
Austria	2.6	3.4
Belgium	5.8	5.7
Canada	1.3	0.9
Denmark	1.2	1.2
Finland	0.7	0.9
France	20.3	18.3
Western Germany	32.7	29.4
Greece	0.6	1.1
Italy	-	-
Japan	2.6	5.2
Netherlands	5.9	5.5
Norway	0.8	0.7
Portugal	0.4	0.8
Spain	1.8	5.9
Sweden	2.5	2.2
United Kingdom	6.5	9.2
United States	13.6	9.0

Annex Table 11

Japan

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	67.2	75.2	89.4
1980	68.2	74.2	92.0
1981	69.9	76.8	91.0
1982	72.6	77.7	93.4
1983	73.6	82.6	89.1
1984	76.9	87.0	88.4
1985	82.4	89.9	91.6
1986	81.5	90.5	90.1
1987	86.3	94.4	91.4
1988	91.2	98.4	92.6
1989	95.1	99.2	95.9
1990	100.0	100.0	100.0
1991	102.0	100.5	101.5
1992	99.5	103.2	96.4
1993	97.6	105.6	92.5
1994	98.3	111.5	88.2

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	88.4	67.0	132.1
1980	92.7	75.5	122.7
1981	96.6	80.6	119.9
1982	98.0	86.6	113.1
1983	99.9	86.6	115.4
1984	100.6	87.0	115.7
1985	98.4	89.2	110.3
1986	103.6	92.6	111.9
1987	100.4	92.5	108.5
1988	97.7	92.8	105.3
1989	98.5	95.7	102.9
1990	100.0	100.0	100.0
1991	101.9	104.8	97.3
1992	106.3	107.7	98.7
1993	111.6	108.6	102.7
1994	113.4	106.4	106.5

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	58.4	70.7	82.7
1980	59.2	80.0	74.0
1981	63.4	80.4	78.9
1982	56.9	82.7	68.9
1983	60.9	80.0	76.2
1984	61.3	78.0	78.7
1985	59.7	77.4	77.2
1986	89.0	83.9	106.0
1987	100.5	88.0	114.2
1988	110.4	90.1	122.4
1989	103.3	91.2	113.4
1990	100.0	100.0	100.0
1991	109.6	103.8	105.6
1992	121.5	107.9	112.6
1993	145.2	103.6	140.2
1994	160.6	101.9	157.6

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	151.4	94.8	159.7
1980	156.6	94.5	165.8
1981	152.3	101.6	149.9
1982	172.0	107.2	160.5
1983	164.0	112.1	146.3
1984	164.0	117.8	139.3
1985	164.7	122.4	134.6
1986	116.4	112.4	103.6
1987	99.9	105.4	94.8
1988	88.5	103.1	85.9
1989	95.3	105.4	90.4
1990	100.0	100.0	100.0
1991	93.0	101.0	92.1
1992	87.5	99.9	87.5
1993	76.8	105.6	72.7
1994	70.6	105.3	67.0

	Trade Weights	
	1970	1994
Australia	8.0	4.9
Austria	0.4	0.8
Belgium	1.6	2.0
Canada	6.2	5.2
Denmark	0.5	1.6
Finland	0.2	0.7
France	3.1	5.5
Western Germany	11.0	13.2
Greece	0.1	0.1
Italy	2.8	4.9
Japan	-	-
Netherlands	1.5	1.6
Norway	0.4	0.6
Portugal	0.2	0.1
Spain	0.4	1.1
Sweden	1.3	1.9
United Kingdom	7.1	5.3
United States	55.1	50.5

Annex Table 12

Netherlands

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Norway, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	73.6	75.4	97.6
1980	75.0	74.9	100.2
1981	77.4	76.6	101.0
1982	79.3	78.5	101.0
1983	85.7	82.9	103.5
1984	91.1	86.3	105.6
1985	92.4	88.9	103.8
1986	93.9	89.9	104.5
1987	91.2	91.4	99.7
1988	94.2	95.7	98.5
1989	98.2	98.4	99.8
1990	100.0	100.0	100.0
1991	100.2	101.3	98.9
1992	101.1	102.7	98.5
1993	102.7	103.2	99.5
1994	111.6	109.5	102.0

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	94.6	65.3	144.8
1980	98.2	72.6	135.2
1981	99.9	77.2	129.4
1982	104.4	81.4	128.2
1983	100.8	82.6	122.1
1984	97.0	84.8	114.4
1985	98.2	87.4	112.4
1986	100.1	90.7	110.3
1987	105.9	93.7	112.9
1988	102.9	93.7	109.8
1989	99.2	95.6	103.8
1990	100.0	100.0	100.0
1991	104.4	104.9	99.5
1992	108.4	109.0	99.4
1993	109.7	111.6	98.3
1994	104.1	109.2	95.4

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	85.8	68.8	124.7
1980	89.9	77.4	116.2
1981	72.9	69.3	105.2
1982	71.2	65.4	108.8
1983	64.3	61.1	105.3
1984	55.0	57.3	96.1
1985	53.8	57.1	94.3
1986	74.4	72.8	102.1
1987	95.2	86.2	110.4
1988	94.8	89.0	106.5
1989	85.2	85.6	99.5
1990	100.0	100.0	100.0
1991	101.7	103.1	98.7
1992	112.3	111.4	100.8
1993	107.5	105.8	101.7
1994	104.2	105.5	98.8

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	110.2	95.9	114.8
1980	109.2	95.4	114.4
1981	137.0	114.0	120.2
1982	146.6	127.4	115.1
1983	156.7	138.5	113.1
1984	176.2	153.2	115.0
1985	182.4	158.8	114.9
1986	134.5	125.7	107.1
1987	111.2	108.9	102.1
1988	108.5	105.6	102.8
1989	116.5	112.2	103.8
1990	100.0	100.0	100.0
1991	102.7	101.9	100.8
1992	96.6	98.0	98.5
1993	102.0	107.2	95.1
1994	99.9	105.9	94.4

	Trade Weights	
	1970	1994
Australia	0.5	0.5
Austria	0.9	1.7
Belgium	17.3	8.8
Canada	1.3	0.7
Denmark	0.9	1.5
Finland	0.9	1.1
France	10.1	12.4
Western Germany	33.9	30.1
Greece	0.4	0.7
Italy	6.6	7.4
Japan	3.0	6.4
Netherlands	-	-
Norway	0.8	0.9
Portugal	0.3	0.9
Spain	1.2	3.0
Sweden	2.8	2.5
United Kingdom	8.7	11.4
United States	10.4	10.0

Annex Table 13

Norway

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Portugal, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	77.8	75.6	102.9
1980	77.1	76.0	101.4
1981	77.2	77.3	99.9
1982	79.7	79.5	100.2
1983	84.0	84.7	99.2
1984	89.4	88.2	101.3
1985	91.7	90.1	101.7
1986	90.6	90.9	99.6
1987	92.5	92.3	100.2
1988	92.1	96.0	95.9
1989	97.2	98.6	98.6
1990	100.0	100.0	100.0
1991	101.3	101.4	99.9
1992	111.3	104.2	106.9
1993	113.9	107.1	106.3
1994	119.5	114.4	104.5

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	50.8	62.4	81.5
1980	56.2	69.0	81.4
1981	62.4	74.9	83.2
1982	66.7	78.9	84.5
1983	69.9	79.1	88.3
1984	71.6	81.4	88.0
1985	76.0	84.5	90.0
1986	84.4	88.4	95.4
1987	91.7	91.3	100.5
1988	97.8	92.2	106.2
1989	97.1	94.9	102.3
1990	100.0	100.0	100.0
1991	103.9	105.3	98.7
1992	98.7	107.7	91.6
1993	101.1	107.6	93.9
1994	103.1	105.2	98.0

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	62.8	67.9	92.5
1980	71.2	76.2	93.4
1981	68.0	69.0	98.6
1982	64.7	63.9	101.2
1983	59.9	58.6	102.3
1984	54.9	55.4	99.2
1985	55.3	55.3	100.0
1986	71.4	71.4	100.0
1987	85.2	84.2	101.2
1988	94.0	88.1	106.6
1989	88.0	85.8	102.6
1990	100.0	100.0	100.0
1991	100.3	103.6	96.8
1992	99.4	109.8	90.5
1993	89.2	99.6	89.6
1994	91.5	98.9	92.5

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	80.9	92.6	87.4
1980	78.9	91.9	85.8
1981	91.7	110.9	82.7
1982	103.1	125.7	82.1
1983	116.6	137.3	84.9
1984	130.4	150.8	86.5
1985	137.3	156.6	87.7
1986	118.1	124.7	94.8
1987	107.6	108.6	99.2
1988	104.1	104.9	99.3
1989	110.3	111.0	99.4
1990	100.0	100.0	100.0
1991	103.6	101.7	101.9
1992	99.3	98.5	100.8
1993	113.3	111.3	101.8
1994	112.7	110.1	102.4

	Trade Weights	
	1970	1994
Australia	0.2	0.3
Austria	1.4	1.2
Belgium	3.3	2.9
Canada	0.7	1.8
Denmark	7.8	8.6
Finland	3.0	3.9
France	4.1	5.9
Western Germany	19.8	17.8
Greece	0.7	0.3
Italy	3.0	4.7
Japan	5.9	7.1
Netherlands	3.3	4.3
Norway	-	-
Portugal	0.5	1.1
Spain	0.7	1.5
Sweden	22.6	18.4
United Kingdom	16.7	12.8
United States	6.1	7.7

Annex Table 14

Portugal

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Spain, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	68.7	74.4	92.4
1980	73.1	73.7	99.2
1981	73.8	76.1	97.0
1982	77.2	78.1	98.9
1983	77.2	82.3	93.8
1984	77.3	86.1	89.8
1985	82.0	89.0	92.2
1986	86.4	90.3	95.6
1987	88.2	92.0	95.8
1988	92.8	96.2	96.4
1989	98.1	98.9	99.2
1990	100.0	100.0	100.0
1991	99.0	101.4	97.7
1992	103.5	103.2	100.3
1993	107.6	103.0	104.4
1994	108.9	109.8	99.2

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	22.9	62.3	36.8
1980	26.6	70.1	37.9
1981	31.8	75.0	42.4
1982	36.6	80.2	45.6
1983	43.0	83.0	51.8
1984	51.5	84.1	61.3
1985	59.1	86.8	68.1
1986	67.7	89.8	75.4
1987	76.0	92.8	81.9
1988	80.8	92.9	87.0
1989	86.3	95.0	90.9
1990	100.0	100.0	100.0
1991	113.0	105.1	107.5
1992	125.5	108.9	115.3
1993	125.4	112.2	111.8
1994	126.9	110.6	114.8

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	66.8	68.1	98.0
1980	75.7	77.5	97.7
1981	73.6	69.1	106.5
1982	65.6	65.1	100.9
1983	55.3	62.1	89.0
1984	50.2	56.3	89.2
1985	49.4	55.6	88.9
1986	64.5	71.1	90.7
1987	76.9	84.2	91.3
1988	80.0	87.1	91.9
1989	78.2	84.1	92.9
1990	100.0	100.0	100.0
1991	111.5	102.9	108.3
1992	132.5	110.4	120.0
1993	111.2	102.1	108.9
1994	109.0	100.6	108.4

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	34.3	92.0	37.3
1980	35.1	91.7	38.3
1981	43.2	110.3	39.1
1982	55.7	125.2	44.5
1983	77.7	136.6	56.9
1984	102.7	153.3	67.0
1985	119.5	160.2	74.6
1986	104.9	127.2	82.5
1987	98.8	110.5	89.4
1988	101.0	107.1	94.3
1989	110.5	113.3	97.5
1990	100.0	100.0	100.0
1991	101.4	102.1	99.2
1992	94.7	98.7	95.9
1993	112.8	111.6	101.1
1994	116.4	112.2	103.8

	Trade Weights	
	1970	1994
Australia	0.4	0.2
Austria	2.4	1.1
Belgium	3.6	4.6
Canada	1.2	0.4
Denmark	1.7	1.2
Finland	1.1	0.9
France	11.2	15.3
Western Germany	21.8	18.6
Greece	0.1	0.2
Italy	8.6	10.3
Japan	3.8	3.7
Netherlands	2.8	4.3
Norway	1.2	1.3
Portugal	-	-
Spain	5.1	20.8
Sweden	4.4	1.8
United Kingdom	20.0	9.8
United States	10.5	5.7

Annex Table 15

Spain

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Portugal, Sweden, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	71.0	74.6	95.2
1980	72.1	74.2	97.2
1981	77.2	76.3	101.3
1982	81.0	77.9	104.0
1983	84.2	81.9	102.8
1984	88.4	85.4	103.5
1985	94.7	88.0	107.7
1986	96.7	89.1	108.5
1987	98.2	90.8	108.1
1988	100.6	95.4	105.4
1989	101.3	98.4	103.0
1990	100.0	100.0	100.0
1991	102.5	100.9	101.6
1992	105.2	102.5	102.6
1993	100.9	103.6	97.5
1994	108.8	109.9	99.0

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	46.6	64.2	72.6
1980	55.5	71.2	77.9
1981	59.8	76.8	77.8
1982	65.2	82.0	79.5
1983	70.6	83.6	84.5
1984	73.5	85.6	85.8
1985	74.9	88.7	84.4
1986	79.5	91.5	86.9
1987	82.8	94.2	87.9
1988	85.7	93.7	91.4
1989	91.0	95.5	95.2
1990	100.0	100.0	100.0
1991	105.0	105.4	99.6
1992	110.1	109.5	100.6
1993	118.4	111.5	106.1
1994	120.4	109.0	110.5

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	70.7	68.5	103.3
1980	78.9	77.4	101.9
1981	66.0	70.3	93.9
1982	60.5	66.7	90.7
1983	50.2	62.6	80.2
1984	46.6	58.4	79.8
1985	44.9	58.9	76.2
1986	57.9	73.9	78.3
1987	68.4	86.9	78.7
1988	75.0	89.0	84.2
1989	78.3	85.2	91.9
1990	100.0	100.0	100.0
1991	103.0	103.3	99.7
1992	109.6	111.8	98.0
1993	94.8	104.4	90.8
1994	91.6	103.3	88.7

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	65.9	94.0	70.1
1980	70.3	93.1	75.5
1981	90.6	111.4	81.3
1982	107.8	125.7	85.7
1983	140.7	136.6	103.0
1984	157.7	151.4	104.1
1985	166.8	156.2	106.8
1986	137.4	124.7	110.1
1987	121.1	108.4	111.7
1988	114.3	105.6	108.2
1989	116.1	112.5	103.3
1990	100.0	100.0	100.0
1991	101.9	102.1	99.8
1992	100.4	98.1	102.4
1993	124.8	108.5	115.1
1994	131.4	107.5	122.2

	Trade Weights	
	1970	1994
Australia	0.3	0.2
Austria	0.9	1.5
Belgium	4.0	5.5
Canada	1.8	0.4
Denmark	0.8	0.9
Finland	0.9	1.0
France	14.9	23.1
Western Germany	21.2	20.4
Greece	0.2	0.4
Italy	9.2	13.2
Japan	4.4	4.2
Netherlands	4.6	4.5
Norway	0.8	0.4
Portugal	0.6	4.5
Spain	-	-
Sweden	3.6	1.8
United Kingdom	11.9	10.4
United States	19.8	7.7

Annex Table 16

Sweden

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Portugal, Spain, United Kingdom, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	78.0	75.3	103.6
1980	78.6	75.0	104.7
1981	78.8	76.8	102.7
1982	82.3	78.5	104.8
1983	88.8	83.0	106.9
1984	94.5	86.4	109.3
1985	94.2	88.9	106.0
1986	95.0	89.8	105.8
1987	95.3	91.5	104.1
1988	96.3	95.6	100.8
1989	98.1	98.5	99.7
1990	100.0	100.0	100.0
1991	103.4	100.9	102.5
1992	109.8	103.5	106.1
1993	120.2	105.0	114.4
1994	134.1	111.1	120.7

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	51.6	64.0	80.6
1980	56.2	70.9	79.3
1981	62.1	75.9	81.8
1982	64.0	80.9	79.0
1983	64.7	82.0	78.9
1984	67.3	84.0	80.1
1985	73.2	86.8	84.4
1986	77.7	90.4	85.9
1987	81.0	93.7	86.5
1988	86.3	94.0	91.7
1989	92.8	95.6	97.1
1990	100.0	100.0	100.0
1991	107.9	104.6	103.1
1992	106.9	107.3	99.6
1993	99.3	109.1	91.0
1994	95.5	107.0	89.3

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	71.3	66.5	107.2
1980	78.7	74.9	105.1
1981	72.5	68.3	106.3
1982	60.3	65.4	92.1
1983	49.9	61.2	81.6
1984	48.1	57.5	83.7
1985	50.4	57.8	87.1
1986	64.6	73.0	88.4
1987	75.6	86.2	87.8
1988	83.3	89.8	92.8
1989	85.2	86.1	99.0
1990	100.0	100.0	100.0
1991	105.6	102.6	102.9
1992	108.6	108.7	99.9
1993	75.5	102.7	73.5
1994	73.3	102.9	71.2

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	72.4	96.7	74.9
1980	71.5	95.8	74.6
1981	85.5	113.4	75.4
1982	106.1	126.5	83.9
1983	129.5	137.2	94.4
1984	139.8	151.1	92.5
1985	145.4	155.7	93.3
1986	120.4	125.1	96.2
1987	107.1	109.0	98.3
1988	103.5	105.2	98.4
1989	108.9	111.5	97.7
1990	100.0	100.0	100.0
1991	102.2	102.0	100.2
1992	98.4	99.1	99.3
1993	131.5	108.7	121.0
1994	130.4	106.7	122.2

	Trade Weights	
	1970	1994
Australia	0.5	0.9
Austria	2.4	1.8
Belgium	4.1	4.1
Canada	1.1	0.9
Denmark	9.5	7.2
Finland	6.5	6.3
France	5.8	7.8
Western Germany	23.1	22.6
Greece	0.2	0.4
Italy	4.0	5.7
Japan	2.6	6.5
Netherlands	4.0	4.7
Norway	7.6	6.0
Portugal	0.9	0.9
Spain	0.9	2.0
Sweden	-	-
United Kingdom	16.8	12.1
United States	10.1	10.1

Annex Table 17

United Kingdom

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United States

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	66.6	75.3	88.4
1980	63.5	75.4	84.3
1981	66.4	77.2	86.1
1982	70.6	78.8	89.6
1983	76.8	83.1	92.5
1984	80.9	86.8	93.3
1985	83.5	89.5	93.3
1986	86.6	90.2	96.0
1987	91.2	91.7	99.5
1988	96.2	95.8	100.4
1989	99.9	98.3	101.6
1990	100.0	100.0	100.0
1991	100.9	101.1	99.8
1992	104.1	102.7	101.4
1993	105.5	103.8	101.7
1994	107.2	110.5	97.0

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	54.6	66.6	82.0
1980	66.8	73.7	90.7
1981	74.1	78.6	94.3
1982	77.0	83.6	92.1
1983	76.8	84.7	90.6
1984	79.0	86.1	91.8
1985	83.6	88.5	94.5
1986	87.4	91.8	95.2
1987	92.0	94.2	97.6
1988	92.9	94.0	98.8
1989	93.2	96.0	97.1
1990	100.0	100.0	100.0
1991	106.5	104.8	101.7
1992	107.7	108.6	99.2
1993	107.7	110.7	97.2
1994	105.8	108.5	97.6

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	65.2	69.7	93.5
1980	87.5	76.7	114.0
1981	83.8	69.5	120.5
1982	75.8	66.8	113.5
1983	65.5	63.2	103.7
1984	59.2	59.8	99.0
1985	60.4	59.2	102.1
1986	72.1	74.7	96.6
1987	84.6	87.2	97.1
1988	93.0	89.6	103.8
1989	85.9	86.9	98.8
1990	100.0	100.0	100.0
1991	105.8	103.2	102.5
1992	106.5	111.3	95.6
1993	90.9	106.9	85.0
1994	91.2	106.7	85.4

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	83.8	96.3	87.1
1980	76.4	97.2	78.6
1981	88.4	114.7	77.0
1982	101.6	128.3	79.2
1983	117.1	138.0	84.9
1984	133.5	150.5	88.7
1985	138.4	156.5	88.4
1986	121.1	124.4	97.4
1987	108.7	108.2	100.4
1988	99.8	105.4	94.7
1989	108.5	111.1	97.7
1990	100.0	100.0	100.0
1991	100.7	101.6	99.1
1992	101.2	97.7	103.5
1993	118.4	105.7	112.0
1994	116.0	104.5	111.0

	Trade Weights	
	1970	1994
Australia	4.0	1.0
Austria	1.8	1.1
Belgium	3.9	6.4
Canada	9.2	1.3
Denmark	5.7	1.9
Finland	3.7	1.8
France	6.6	14.0
Western Germany	12.4	21.4
Greece	0.3	0.4
Italy	5.1	8.3
Japan	5.4	9.1
Netherlands	6.1	6.9
Norway	3.7	1.4
Portugal	1.7	1.3
Spain	1.6	3.7
Sweden	7.8	3.8
United Kingdom	-	-
United States	21.1	16.0

Annex Table 18

United States

Trade-Weighted Output per Employed Person and Unit Labour Costs in Total Manufacturing, 1979-94
(Indexes: 1990=100)

Competitors: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy,
Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom

Year	Output per Employed Person U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	72.1	76.3	94.5
1980	71.2	75.0	95.0
1981	74.6	76.9	97.0
1982	76.0	77.1	98.6
1983	81.6	81.2	100.5
1984	85.9	85.9	100.0
1985	89.2	89.4	99.7
1986	89.6	88.8	100.9
1987	96.0	91.4	105.0
1988	100.4	94.9	105.7
1989	99.6	97.4	102.3
1990	100.0	100.0	100.0
1991	99.6	101.2	98.4
1992	102.8	102.5	100.4
1993	105.7	104.2	101.4
1994	110.7	108.8	101.7

Year	Unit Labour Costs National Currency Basis		
	Own Index	Competitors' Index	Ratio
1979	74.7	67.3	111.0
1980	83.8	75.1	111.6
1981	87.8	80.8	108.7
1982	93.2	86.5	107.8
1983	91.4	87.7	104.2
1984	91.1	88.1	103.3
1985	92.6	89.2	103.8
1986	96.0	93.9	102.2
1987	92.5	94.7	97.6
1988	92.5	94.8	97.6
1989	96.2	96.6	99.6
1990	100.0	100.0	100.0
1991	104.7	104.3	100.4
1992	107.5	106.9	100.6
1993	108.1	108.3	99.8
1994	106.7	107.2	99.6

Year	Unit Labour Costs U.S. Dollar Basis		
	Own Index	Competitors' Index	Ratio
1979	74.7	62.0	120.6
1980	83.8	68.8	121.8
1981	87.8	67.8	129.4
1982	93.2	66.9	139.4
1983	91.4	66.1	138.2
1984	91.1	62.2	146.5
1985	92.6	60.5	152.9
1986	96.0	77.6	123.7
1987	92.5	88.6	104.4
1988	92.5	95.8	96.6
1989	96.2	93.7	102.6
1990	100.0	100.0	100.0
1991	104.7	106.5	98.3
1992	107.5	111.4	96.5
1993	108.1	112.8	95.8
1994	106.7	115.1	92.7

Year	Exchange Rates		
	Own Index	Competitors' Index	Ratio
1979	100.0	110.0	90.9
1980	100.0	112.5	88.8
1981	100.0	121.0	82.6
1982	100.0	133.3	75.0
1983	100.0	135.9	73.6
1984	100.0	144.9	69.0
1985	100.0	150.1	66.6
1986	100.0	121.5	82.3
1987	100.0	107.5	93.0
1988	100.0	100.0	100.0
1989	100.0	103.8	96.3
1990	100.0	100.0	100.0
1991	100.0	98.1	102.0
1992	100.0	96.5	103.6
1993	100.0	99.8	100.2
1994	100.0	99.4	100.6

	Trade Weights	
	1970	1994
Australia	1.7	1.0
Austria	0.5	0.5
Belgium	2.6	2.0
Canada	35.3	30.5
Denmark	1.0	0.6
Finland	0.4	0.6
France	4.0	5.1
Western Germany	12.4	10.2
Greece	0.1	0.1
Italy	5.4	4.5
Japan	23.0	33.5
Netherlands	1.7	1.7
Norway	0.4	0.4
Portugal	0.3	0.3
Spain	1.3	1.3
Sweden	1.7	1.4
United Kingdom	8.2	6.3
United States	-	-

ANNEX TABLES 19-54

TRADE-WEIGHTED RELATIVE UNIT LABOUR COST BY INDUSTRY

METHODS:

TOTAL PRICE COMPETITIVENESS AND COMPETITIVENESS AMONG EXPORTERS

Tables 19. & 20.	.....	Australia
Tables 21. & 22.	.....	Austria
Tables 23. & 24.	.....	Belgium / Luxembourg
Tables 25. & 26.	.....	Canada
Tables 27. & 28.	.....	Denmark
Tables 29. & 30.	.....	Finland
Tables 31. & 32.	.....	France
Tables 33. & 34.	.....	Western Germany
Tables 35. & 36.	.....	Greece
Tables 37. & 38.	.....	Italy
Tables 39. & 40	.....	Japan
Tables 41. & 42	.....	Netherlands
Tables 43. & 44.	.....	Norway
Tables 45. & 46.	.....	Portugal
Tables 47. & 48.	.....	Spain
Tables 49. & 50.	.....	Sweden
Tables 51. & 52.	.....	United Kingdom
Tables 53. & 54.	.....	United States

Annex Table 23: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

Belgium / Luxembourg

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	139.9	130.4	115.1	97.2	92.2	90.3	90.9	96.1	98.9	96.1	94.2	100.0	101.0	102.7	101.6	101.9
Food, drink and tobacco	123.6	118.8	111.7	93.2	86.9	86.2	89.3	88.1	84.3	86.7	89.3	100.0	101.1	103.5	101.0	103.6
Textiles, Footwear and leather	167.0	154.6	134.6	126.5	116.8	119.7	124.8	116.9	113.3	113.1	101.7	100.0	102.2	100.4	96.2	98.4
Wood, cork and furniture	167.9	147.2	124.6	104.7	105.9	109.0	109.8	106.0	106.5	101.8	96.5	100.0	101.8	110.0	122.8	129.6
Paper and printing	154.0	157.9	139.0	118.0	109.5	108.6	115.4	114.5	113.3	102.3	95.3	100.0	102.7	101.7	95.7	98.2
Chemicals	124.5	120.4	110.3	95.9	98.0	92.4	92.2	101.4	96.4	93.0	93.2	100.0	97.6	99.5	106.0	..
Industrial chemicals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pharmaceuticals	120.9	132.3	124.0	102.8	94.8	81.4	77.0	82.1	96.6	92.6	88.9	100.0	112.2	120.3	120.1	..
Petroleum products	122.9	97.3	90.7	90.3	108.5	90.4	95.8	85.3	79.6	71.1	76.1	100.0	100.7	128.7	135.6	178.4
Rubber and plastic products	162.1	153.2	143.8	120.1	121.8	123.9	116.0	124.2	110.6	103.5	100.2	100.0	96.5	89.8	108.4	112.1
Stone, clay and glass	173.4	154.5	136.8	113.6	106.4	112.5	119.9	110.0	104.0	94.5	93.4	100.0	106.8	99.9	96.8	98.4
Basic metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ferrous metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non-ferrous metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fabricated metal products and machinery	131.9	123.7	106.3	85.9	80.0	78.3	77.4	86.9	99.2	97.9	94.8	100.0	102.8	105.5	100.7	100.8
Fabricated metal products	156.8	148.9	126.7	101.1	99.8	95.4	95.2	106.2	112.6	108.1	96.3	100.0	103.2	103.1	86.4	85.5
Non-electrical machinery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Electrical machinery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shipbuilding	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other transport	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Motor vehicles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aerospace	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other manufacturing industries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Annex Table 24: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

Belgium / Luxembourg

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	143.1	134.2	113.8	95.3	88.9	86.1	87.5	93.7	98.8	94.6	91.6	100.0	100.1	102.9	100.2	99.6
Food, drink and tobacco	130.7	124.6	111.2	91.3	84.1	82.0	86.7	88.9	88.3	89.1	88.8	100.0	100.8	104.9	103.4	105.8
Textiles, Footwear and leather	169.0	158.3	135.0	125.1	115.4	118.8	126.9	118.7	114.8	114.7	102.0	100.0	102.1	99.9	96.4	99.2
Wood, cork and furniture	178.4	154.6	125.4	105.5	106.5	106.7	108.6	109.4	110.8	103.4	95.0	100.0	101.4	113.5	133.0	138.0
Paper and printing	167.0	168.2	140.4	116.0	108.3	104.3	110.4	116.4	118.4	103.9	93.3	100.0	103.2	105.6	101.3	102.5
Chemicals	122.4	118.1	106.6	91.8	92.9	87.8	88.9	98.3	96.3	91.7	91.5	100.0	97.3	99.9	104.8	102.8
Industrial chemicals	101.8	98.8	88.3	76.2	77.9	76.0	80.9	92.4	90.5	88.5	91.4	100.0	94.8	97.6	98.0	92.2
Pharmaceuticals	126.9	135.7	122.8	101.1	93.4	79.0	74.6	81.2	98.3	93.4	88.8	100.0	112.3	121.7	122.9	127.6
Petroleum products	120.1	95.6	87.8	86.7	102.4	86.2	87.8	82.7	85.3	72.4	75.3	100.0	97.0	120.5	128.6	168.1
Rubber and plastic products	169.5	159.4	144.8	119.9	119.4	118.1	113.8	122.6	112.5	103.6	98.1	100.0	95.9	90.8	110.2	112.5
Stone, clay and glass	188.6	165.6	140.2	114.3	107.6	109.8	118.1	109.6	105.6	94.5	92.0	100.0	105.4	100.6	98.6	99.1
Basic metals	133.2	130.4	115.4	105.1	97.7	96.0	97.4	100.6	99.4	92.2	93.5	100.0	104.3	113.0	121.1	119.1
Ferrous metals	144.6	141.7	113.0	114.1	105.4	103.3	103.0	103.4	99.1	96.2	96.0	100.0	105.3	122.0	132.5	133.5
Non-ferrous metals	105.8	116.0	128.0	91.4	83.5	84.2	89.0	96.5	101.9	85.4	89.4	100.0	102.9	96.1	99.6	93.8
Fabricated metal products and machinery	128.1	122.5	100.3	80.6	73.9	71.5	71.7	81.8	96.1	94.3	91.0	100.0	101.4	105.5	98.2	97.7
Fabricated metal products	156.7	149.0	122.5	98.7	95.6	89.8	92.2	105.3	114.1	107.7	94.1	100.0	102.2	104.6	89.8	88.6
Non-electrical machinery	119.1	115.1	93.4	73.4	71.7	71.6	72.8	84.8	97.5	96.3	93.3	100.0	98.4	100.1	94.6	90.6
Electrical machinery	97.6	98.4	82.0	68.3	64.4	64.9	68.0	78.1	90.9	91.4	91.2	100.0	107.3	113.7	106.8	108.7
Shipbuilding	101.4	127.6	100.1	82.7	68.7	70.8	65.6	74.2	80.0	84.9	86.5	100.0	99.1	104.9	92.7	84.6
Other transport	81.9	85.0	76.3	68.1	65.7	67.8	70.9	77.5	94.7	91.5	87.5	100.0	98.3	94.6	79.3	80.5
Motor vehicles	147.0	133.7	115.8	93.2	85.7	79.7	79.7	87.3	101.9	97.1	92.4	100.0	99.1	102.9	92.7	91.0
Aerospace	148.1	129.5	94.4	84.0	76.5	74.5	66.7	82.9	106.1	103.8	94.4	100.0	100.5	104.2	96.8	94.9
Instruments	112.2	84.9	68.3	48.9	39.5	41.7	42.0	53.1	75.4	79.6	97.6	100.0	101.2	115.4	171.2	147.7
Other manufacturing industries	172.2	106.4	85.2	73.0	61.0	60.5	60.2	78.8	90.7	89.8	105.1	100.0	84.6	87.0	102.0	88.6

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 35: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

Greece

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	85.9	82.6	88.1	99.9	96.2	100.5	95.3	79.9	80.1	85.4	93.5	100.0	96.4	98.4	103.8	112.3
Food, drink and tobacco	75.8	78.2	85.2	99.8	94.7	97.0	92.5	82.7	78.7	81.6	89.0	100.0	94.1	95.8	96.9	100.1
Textiles, Footwear and leather	73.6	73.5	83.0	103.8	99.2	102.7	99.1	82.9	83.7	90.0	101.1	100.0	97.7	100.2	107.0	109.7
Wood, cork and furniture	64.1	68.4	60.8	67.9	89.5	97.8	86.1	78.4	91.3	88.9	92.6	100.0	102.3	112.2	126.5	143.9
Paper and printing	108.4	108.2	108.6	112.8	105.9	105.5	90.8	74.9	67.8	79.3	86.1	100.0	95.0	101.4	110.1	114.6
Chemicals	94.7	90.4	101.9	112.9	108.5	111.0	104.9	89.6	87.2	85.7	92.2	100.0	104.0	109.1	112.7	124.1
Industrial chemicals	81.6	76.8	88.0	100.7	96.3	101.0	98.5	83.8	79.6	83.3	94.0	100.0	102.0	103.9	114.4	125.1
Pharmaceuticals	105.8	103.9	116.0	132.4	118.5	108.2	98.4	94.7	84.8	85.8	90.5	100.0	114.8	120.5	110.6	124.7
Petroleum products	79.2	71.3	81.7	84.8	90.6	97.3	96.8	67.2	67.6	70.0	88.5	100.0	108.9	120.5	110.1	120.9
Rubber and plastic products	122.2	126.8	131.8	143.9	128.6	134.8	123.8	110.7	116.9	96.1	89.5	100.0	97.2	107.7	111.8	123.2
Stone, clay and glass	94.2	85.5	93.2	103.8	101.4	105.6	103.1	83.8	84.5	90.5	98.5	100.0	108.0	115.2	123.9	128.7
Basic metals	72.9	73.6	76.7	88.3	82.4	94.8	88.0	75.6	76.1	81.5	95.2	100.0	91.3	92.2	98.6	103.1
Ferrous metals	87.1	84.5	85.9	82.6	82.6	89.0	84.9	78.3	78.5	82.5	89.4	100.0	96.0	97.7	107.1	116.3
Non-ferrous metals	64.1	68.2	70.1	100.8	87.4	104.1	96.1	79.1	77.2	79.8	99.5	100.0	85.8	86.8	87.2	87.3
Fabricated metal products and machinery	85.3	80.8	82.2	86.3	80.5	88.2	87.2	69.1	74.9	80.8	89.5	100.0	91.5	88.2	102.4	116.8
Fabricated metal products	75.8	71.9	74.9	83.2	75.2	83.0	84.7	68.5	74.2	70.2	81.3	100.0	91.9	87.0	87.7	92.7
Non-electrical machinery	69.0	72.3	69.1	75.5	74.5	86.4	78.9	69.9	117.5	117.0	105.0	100.0	97.3	89.6	86.7	89.6
Electrical machinery	81.6	76.7	77.4	96.4	78.6	117.8	96.9	79.3	92.1	98.0	98.4	100.0	102.1	111.1	107.6	119.9
Shipbuilding	42.2	57.3	55.2	46.9	43.4	61.7	99.0	43.5	43.0	77.2	88.5	100.0	85.2	93.5	87.6	86.9
Other transport	94.9	86.5	84.0	72.9	69.1	87.9	84.0	73.0	80.1	86.2	92.0	100.0	91.4	83.3	67.9	106.2
Motor vehicles	89.6	83.0	84.6	82.6	90.7	88.9	88.3	82.0	70.5	79.1	103.8	100.0	99.5	72.2	117.0	127.0
Aerospace	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other manufacturing industries	95.9	76.4	80.5	96.5	80.5	96.1	87.7	74.6	75.5	105.5	126.0	100.0	73.5	124.3	183.9	228.3

Annex Table 36: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

Greece

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	83.3	80.8	83.7	94.7	90.3	92.7	87.2	75.8	78.6	82.8	90.4	100.0	95.7	98.2	100.3	105.4
Food, drink and tobacco	78.5	80.7	83.0	98.2	90.4	89.6	85.4	81.0	80.6	83.2	88.2	100.0	94.3	95.9	95.7	99.2
Textiles, Footwear and leather	73.4	74.1	82.5	104.4	99.8	101.3	98.2	82.9	84.3	90.1	100.6	100.0	97.0	99.3	105.9	108.4
Wood, cork and furniture	60.4	66.1	60.0	65.3	82.2	90.3	83.4	76.8	89.5	87.3	90.4	100.0	102.5	112.5	117.4	132.0
Paper and printing	110.9	108.1	108.1	110.3	100.5	97.5	84.5	72.9	68.1	78.4	84.1	100.0	94.4	101.3	106.0	108.8
Chemicals	98.9	92.0	98.5	108.4	102.4	102.5	95.6	84.9	85.3	82.7	89.0	100.0	103.4	109.5	108.7	117.0
Industrial chemicals	83.9	77.2	83.9	93.8	90.4	91.6	89.0	78.7	79.6	83.1	92.6	100.0	102.3	105.1	109.8	118.7
Pharmaceuticals	106.3	104.1	113.3	127.5	114.8	103.3	97.0	92.6	84.5	85.4	90.2	100.0	114.6	120.6	109.8	117.6
Petroleum products	70.6	63.1	61.8	70.4	71.1	80.1	76.0	63.0	66.5	68.8	85.0	100.0	106.6	109.4	106.0	115.3
Rubber and plastic products	122.8	127.4	129.0	136.7	124.8	125.3	113.1	103.7	112.9	89.3	85.8	100.0	97.1	109.0	108.2	116.2
Stone, clay and glass	88.2	82.2	86.8	98.1	97.6	99.4	97.9	81.8	82.7	86.9	96.6	100.0	107.5	114.3	114.7	117.7
Basic metals	71.4	71.6	76.1	89.7	82.0	94.1	88.9	72.9	74.3	80.0	92.2	100.0	91.5	91.2	90.0	93.4
Ferrous metals	84.6	84.2	88.1	88.3	84.4	92.5	90.3	76.4	76.5	80.8	87.6	100.0	96.4	96.0	93.5	100.6
Non-ferrous metals	65.9	65.7	67.1	96.9	83.0	98.1	87.9	73.8	75.4	80.2	95.8	100.0	87.4	88.8	88.4	88.0
Fabricated metal products and machinery	83.1	77.7	76.6	78.7	74.6	81.6	78.0	64.3	72.1	77.3	85.9	100.0	90.9	88.4	100.0	110.6
Fabricated metal products	73.5	70.1	71.5	78.3	70.6	75.6	78.6	66.1	72.3	67.7	78.0	100.0	90.8	85.9	83.3	86.2
Non-electrical machinery	60.4	65.6	60.9	64.1	65.6	78.1	69.9	65.3	111.1	112.3	102.1	100.0	97.1	89.0	83.2	84.6
Electrical machinery	65.2	64.8	64.4	81.3	81.8	97.4	81.9	71.1	84.7	91.2	92.5	100.0	101.3	111.0	105.6	113.1
Shipbuilding	53.2	60.1	66.4	62.1	53.0	72.3	111.0	56.0	55.3	68.6	84.1	100.0	87.0	98.1	91.8	87.6
Other transport	55.1	52.4	57.6	67.8	69.5	82.0	77.7	61.1	71.9	75.9	82.3	100.0	88.0	79.6	79.3	85.5
Motor vehicles	89.2	77.7	78.7	77.3	86.6	83.1	79.0	77.0	70.3	79.4	101.6	100.0	97.9	71.9	115.4	119.3
Aerospace	100.5	83.5	75.1	81.9	77.2	82.5	71.8	65.7	79.9	84.8	89.0	100.0	90.2	87.4	98.9	112.1
Instruments	47.8	39.0	30.8	45.6	43.4	38.2	45.3	46.9	25.2	57.2	105.5	100.0	85.1	86.5	106.2	138.9
Other manufacturing industries	79.8	73.0	77.4	92.2	81.3	94.3	86.8	74.8	75.4	102.5	117.9	100.0	74.8	123.7	173.4	220.4

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 41: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

Netherlands

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	124.7	116.2	105.2	108.8	105.3	96.1	94.3	102.1	110.4	106.5	99.5	100.0	98.7	100.8	101.7	98.8
Food, drink and tobacco	135.5	121.8	107.1	109.6	105.6	105.5	103.8	109.2	131.0	125.7	103.4	100.0	100.8	95.3	98.2	96.2
Textiles, Footwear and leather	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wood, cork and furniture	125.1	118.7	111.4	118.1	110.0	100.1	98.6	101.0	103.3	99.5	97.4	100.0	103.0	107.5	112.7	112.0
Paper and printing	112.5	104.6	97.8	103.6	108.4	100.1	94.3	102.8	108.3	104.8	99.6	100.0	98.5	102.4	105.0	102.5
Chemicals	128.9	123.6	114.8	118.9	109.9	100.4	98.8	104.8	109.2	104.2	99.2	100.0	97.1	100.2	102.3	97.2
Industrial chemicals	136.3	123.9	99.6	100.3	98.2	86.5	83.9	97.6	105.6	101.2	94.7	100.0	95.6	99.3	..	..
Pharmaceuticals	119.2	109.8	88.8	95.8	99.3	94.8	93.4	108.5	113.3	109.2	101.1	100.0	101.0	107.2	119.2	121.5
Petroleum products	136.9	127.5	154.0	161.5	126.4	127.4	..	..	114.4	106.4	106.9	100.0	100.0	102.4	101.2	76.3
Rubber and plastic products	112.8	108.9	89.0	98.0	95.9	89.2	86.6	96.3	101.2	99.8	97.9	100.0	98.3	102.2	100.5	101.1
Stone, clay and glass	100.3	101.3	99.6	108.8	106.4	94.9	90.1	96.5	100.2	99.5	98.3	100.0	101.3	110.9	115.0	109.0
Basic metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ferrous metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Non-ferrous metals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fabricated metal products and machinery	121.8	113.4	100.8	103.8	101.0	88.6	87.5	98.9	106.3	104.5	99.6	100.0	97.2	100.1	..	99.1
Fabricated metal products	115.1	110.4	104.9	112.6	113.1	101.8	99.6	104.8	105.8	105.0	102.0	100.0	99.9	103.0	116.9	111.8
Non-electrical machinery	98.2	95.9	81.2	85.1	87.4	75.8	77.9	93.0	99.8	98.4	96.7	100.0	95.7	99.6	102.8	97.9
Electrical machinery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shipbuilding	220.7	213.9	220.6	194.7	157.5	145.9	134.1	139.0	101.7	99.5	92.6	100.0	90.8	91.1	90.9	78.5
Other transport	108.7	83.9	80.2	67.4	68.4	67.8	75.1	85.4	90.4	103.4	96.8	100.0	95.3	96.0	86.0	77.8
Motor vehicles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aerospace	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other manufacturing industries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Annex Table 42: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

Netherlands

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	127.1	118.5	103.7	106.1	101.0	90.8	89.5	98.5	109.3	104.5	96.8	100.0	97.8	101.0	100.3	96.8
Food, drink and tobacco	138.6	123.4	105.1	107.9	102.4	100.4	100.0	107.4	129.8	124.5	101.5	100.0	101.8	98.2	100.7	100.1
Textiles, Footwear and leather	131.0	124.9	110.2	109.0	103.3	88.8	88.0	99.4	108.0	103.4	97.9	100.0	100.3	109.9	117.3	114.2
Wood, cork and furniture	133.9	124.4	109.3	110.7	103.2	93.5	94.0	101.1	105.2	100.3	95.0	100.0	102.6	110.4	120.8	119.5
Paper and printing	126.6	117.8	103.3	103.8	106.7	96.4	91.7	104.0	111.1	105.8	97.6	100.0	98.3	104.3	106.9	104.7
Chemicals	124.4	118.2	108.4	110.9	102.0	91.8	91.3	98.9	108.3	102.7	97.4	100.0	96.9	101.2	102.1	95.8
Industrial chemicals	131.5	119.6	96.0	96.2	93.8	81.7	80.0	92.9	104.9	100.6	93.6	100.0	95.9	100.3	92.2	90.2
Pharmaceuticals	124.3	114.5	90.6	94.6	96.8	91.0	89.7	105.2	113.8	109.3	100.2	100.0	102.3	108.9	119.6	118.1
Petroleum products	125.7	121.5	145.2	146.2	114.9	116.5	119.1	112.2	119.8	105.9	104.5	100.0	99.0	100.8	104.6	79.6
Rubber and plastic products	122.2	115.1	91.3	97.4	93.4	85.3	84.0	94.9	103.1	100.0	96.0	100.0	97.6	102.9	102.3	103.3
Stone, clay and glass	122.6	118.4	107.2	110.0	107.6	93.7	91.0	96.8	102.2	99.5	96.2	100.0	100.7	110.9	115.7	109.4
Basic metals	83.5	80.3	70.2	74.4	82.5	75.2	78.4	88.4	103.2	98.4	92.4	100.0	95.4	102.6	95.7	92.1
Ferrous metals	83.5	84.0	73.6	76.2	83.7	78.4	81.9	88.0	103.7	100.1	94.1	100.0	95.9	101.5	94.6	92.3
Non-ferrous metals	87.5	78.7	64.4	73.3	81.1	70.0	71.8	88.8	101.4	94.2	88.8	100.0	94.8	104.7	97.6	90.8
Fabricated metal products and machinery	119.4	113.3	97.1	99.0	95.4	83.3	82.9	94.3	103.6	101.6	96.1	100.0	96.2	99.9	97.9	96.0
Fabricated metal products	120.0	115.1	103.4	108.4	107.1	95.2	94.8	104.2	108.4	105.9	99.4	100.0	99.2	105.0	117.3	113.6
Non-electrical machinery	90.9	91.9	77.0	80.0	82.9	73.1	76.2	91.3	98.9	97.5	94.9	100.0	95.4	100.6	102.0	97.3
Electrical machinery	155.8	163.4	126.8	132.7	96.0	81.9	83.6	85.5	101.5	91.5	98.4	100.0	115.3	130.5	125.0	127.8
Shipbuilding	202.3	222.0	208.7	197.0	154.9	132.1	122.8	134.9	100.4	97.0	91.1	100.0	92.6	95.9	88.6	79.3
Other transport	84.1	79.9	69.9	60.7	62.3	62.9	67.9	72.0	84.3	93.4	87.4	100.0	91.6	89.6	93.4	90.8
Motor vehicles	88.8	80.0	77.9	71.6	74.0	72.7	80.7	84.8	97.4	100.4	90.3	100.0	96.1	99.3	105.2	101.8
Aerospace	84.3	72.2	64.2	69.9	59.5	56.5	66.4	88.0	111.2	109.0	94.6	100.0	90.3	93.0	82.7	78.6
Instruments	79.6	78.5	66.6	67.6	66.8	59.0	61.4	78.0	87.9	90.1	79.5	100.0	95.4	98.2	97.3	80.0
Other manufacturing industries	115.7	104.5	99.2	107.2	97.0	88.5	92.1	91.1	92.9	98.6	90.8	100.0	99.7	105.0	100.6	106.5

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 45: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

Portugal

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	98.0	97.7	106.5	100.9	89.0	89.2	88.9	90.7	91.3	91.9	92.9	100.0	108.3	120.0	108.9	108.4
Food, drink and tobacco	139.5	144.8	136.2	125.8	102.9	98.1	103.1	100.1	93.9	86.7	87.8	100.0	110.2	121.9	114.2	109.9
Textiles, Footwear and leather	100.0	95.6	109.1	100.2	93.4	85.5	82.0	88.5	94.8	89.7	90.8	100.0	106.7	119.1	114.6	115.1
Wood, cork and furniture	80.9	81.8	91.3	90.2	72.1	82.0	77.0	94.4	95.6	102.2	99.0	100.0	108.2	115.1	107.9	137.8
Paper and printing	86.4	79.3	88.4	87.9	83.1	85.0	74.0	79.3	86.9	80.0	93.3	100.0	99.8	102.8	99.8	88.6
Chemicals	67.5	63.8	80.3	74.7	79.7	81.9	79.2	82.2	81.4	101.9	90.9	100.0	114.7	136.8	112.5	102.1
Industrial chemicals	71.5	67.2	92.2	82.2	86.9	85.7	86.4	88.6	88.4	107.1	95.0	100.0	107.3	124.6	103.2	89.4
Pharmaceuticals	31.8	31.9	39.0	35.1	39.3	41.6	44.6	51.8	53.0	72.9	73.8	100.0	137.6	159.5	139.9	180.2
Petroleum products	57.7	48.4	53.8	47.6	54.8	69.6	58.0	60.0	81.5	99.9	86.8	100.0	100.4	98.6	72.2	63.4
Rubber and plastic products	86.4	76.7	86.2	87.2	91.7	97.9	94.3	93.8	86.1	109.6	93.6	100.0	114.4	172.8	133.3	97.7
Stone, clay and glass	101.9	96.5	106.2	103.6	96.6	89.9	86.1	87.5	85.8	93.8	95.6	100.0	107.8	119.6	110.2	113.1
Basic metals	109.8	101.3	124.1	106.8	111.0	108.4	124.3	125.7	119.4	145.3	114.8	100.0	109.9	117.1	107.7	68.3
Ferrous metals	107.0	101.9	123.3	105.5	108.5	105.7	121.6	124.7	117.4	143.9	115.5	100.0	112.4	119.6	109.0	58.9
Non-ferrous metals	133.8	117.2	139.7	116.9	127.2	121.2	129.7	120.3	126.5	156.3	113.8	100.0	99.4	105.9	103.0	129.2
Fabricated metal products and machinery	106.6	108.4	116.7	109.5	92.1	89.5	99.6	98.0	99.5	96.4	98.4	100.0	110.1	123.5	111.7	115.6
Fabricated metal products	99.6	112.9	143.3	133.5	121.8	100.4	126.3	90.0	107.6	103.9	100.1	100.0	108.7	121.2	115.5	110.0
Non-electrical machinery	99.6	133.2	139.5	99.4	85.2	89.7	108.0	110.5	110.2	109.0	100.4	100.0	110.1	131.0	126.3	100.7
Electrical machinery	70.5	73.3	84.5	84.0	68.1	71.3	71.7	92.3	91.0	88.9	91.0	100.0	104.3	114.0	105.2	105.0
Shipbuilding	107.5	122.0	108.5	112.4	94.1	73.6	72.0	91.0	84.7	85.6	89.8	100.0	102.8	124.5	95.4	82.7
Other transport	88.3	88.1	97.5	93.9	89.7	81.5	88.6	92.2	101.8	97.9	95.4	100.0	104.9	111.6	93.2	98.0
Motor vehicles	115.2	111.4	120.1	113.5	102.8	92.1	102.8	101.0	103.7	100.5	100.6	100.0	110.5	124.2	105.6	105.6
Aerospace	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Instruments	63.6	..	..	79.1	68.7	57.2	58.7	103.6	86.4	87.9	..	..	101.5	112.2	109.4	104.5
Other manufacturing industries	155.6	131.1	143.2	134.4	106.3	109.6	109.6	103.4	108.8	105.5	102.6	100.0	99.0	103.0	99.7	97.4

Annex Table 46: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

Portugal

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	97.3	98.9	104.7	97.4	86.6	83.3	82.7	85.7	87.9	88.0	89.1	100.0	107.5	119.4	104.0	101.9
Food, drink and tobacco	132.9	142.0	132.8	124.6	99.5	94.8	97.1	97.0	88.3	83.6	85.6	100.0	109.6	119.4	107.5	101.9
Textiles, Footwear and leather	97.1	97.5	111.3	102.0	93.7	87.1	82.6	87.1	93.2	88.6	89.6	100.0	106.6	118.6	113.1	113.0
Wood, cork and furniture	76.1	81.3	88.9	85.6	71.1	77.8	75.9	91.4	92.4	100.2	96.8	100.0	108.8	117.9	111.6	143.4
Paper and printing	86.7	80.2	87.8	85.8	79.0	79.1	66.9	75.0	84.6	77.8	89.7	100.0	100.8	108.3	100.9	89.4
Chemicals	65.5	63.0	77.0	70.3	73.9	73.3	72.0	76.3	78.3	97.2	86.8	100.0	113.8	135.5	106.0	94.4
Industrial chemicals	69.0	65.1	86.8	76.6	80.6	76.0	77.6	81.6	85.7	103.6	91.9	100.0	107.0	123.6	96.9	83.1
Pharmaceuticals	31.8	31.5	38.6	34.9	38.8	41.4	43.8	50.1	52.9	72.1	72.7	100.0	137.5	159.6	139.6	172.4
Petroleum products	59.8	50.8	49.0	47.7	50.9	61.5	54.0	59.4	80.5	100.6	84.0	100.0	96.2	94.9	67.8	60.6
Rubber and plastic products	84.3	78.1	86.9	85.8	89.6	92.1	87.2	87.9	81.1	101.4	88.2	100.0	112.1	167.8	124.2	89.9
Stone, clay and glass	102.7	97.5	103.1	97.3	90.4	85.6	83.1	84.3	82.1	89.3	93.1	100.0	106.2	118.9	105.0	105.8
Basic metals	111.6	102.8	125.0	104.6	103.4	103.3	118.9	115.9	112.4	135.8	106.9	100.0	109.9	120.7	103.8	69.0
Ferrous metals	106.9	102.2	125.4	104.2	102.3	105.1	122.8	115.6	110.9	134.9	108.1	100.0	112.0	121.5	103.7	58.7
Non-ferrous metals	141.8	126.2	139.4	115.3	113.9	107.7	116.1	111.8	117.4	144.1	105.7	100.0	99.8	111.7	103.7	131.8
Fabricated metal products and machinery	102.1	107.1	110.3	102.5	89.3	82.5	90.7	90.9	94.2	90.9	93.4	100.0	109.1	123.2	108.0	110.0
Fabricated metal products	98.0	113.2	138.3	128.8	113.6	91.7	118.6	85.8	102.4	99.2	96.5	100.0	109.2	122.1	113.3	103.9
Non-electrical machinery	92.6	126.3	124.1	86.3	76.8	80.7	100.5	103.2	104.2	103.1	95.0	100.0	109.6	130.7	118.0	90.8
Electrical machinery	58.0	63.5	70.2	69.7	58.0	59.1	60.6	81.4	82.2	82.6	85.4	100.0	103.2	114.0	103.8	102.1
Shipbuilding	80.3	106.6	104.0	103.5	81.2	77.1	82.0	80.4	74.2	79.4	86.4	100.0	107.2	121.5	97.0	99.1
Other transport	66.8	75.5	81.6	83.0	79.6	77.4	89.8	86.3	93.0	88.2	89.7	100.0	105.7	111.3	88.9	91.0
Motor vehicles	115.4	114.0	128.1	120.0	105.5	94.6	104.1	99.3	100.3	94.3	95.9	100.0	107.4	120.4	102.5	103.6
Aerospace	122.9	115.1	105.8	104.7	91.3	89.2	89.0	93.1	103.9	99.4	97.5	100.0	107.5	121.8	105.9	109.8
Instruments	59.1	77.5	82.1	76.6	69.0	59.7	61.2	81.4	103.6	86.3	89.7	100.0	100.6	110.8	104.5	105.1
Other manufacturing industries	137.8	131.9	140.2	131.2	110.9	110.3	110.0	102.7	107.5	101.5	96.8	100.0	99.6	100.9	87.3	88.4

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 47: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

Spain

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	103.3	101.9	93.9	90.7	80.2	79.8	76.2	78.3	78.7	84.2	91.9	100.0	99.7	98.0	90.8	88.7
Food, drink and tobacco	99.8	100.9	90.4	86.6	72.7	72.3	67.8	77.0	77.6	82.3	90.3	100.0	99.0	95.3	85.2	84.7
Textiles, Footwear and leather	96.8	106.7	100.4	88.5	77.6	75.4	73.1	77.5	79.1	85.9	90.5	100.0	100.4	97.1	100.5	92.1
Wood, cork and furniture	97.2	108.4	94.2	81.4	75.9	76.9	78.3	73.3	76.6	85.4	94.2	100.0	101.6	99.3	96.9	96.9
Paper and printing	102.1	86.5	83.1	82.3	71.6	66.1	64.9	72.5	74.0	83.4	91.3	100.0	103.8	112.2	106.8	108.4
Chemicals	95.7	95.2	90.4	90.4	85.2	83.3	78.3	84.7	82.3	83.4	90.7	100.0	98.0	94.1	84.4	84.8
Industrial chemicals	94.1	91.5	89.1	87.5	81.3	81.6	81.6	84.8	82.4	82.9	91.0	100.0	98.4	92.6	85.9	85.9
Pharmaceuticals	78.0	80.3	78.3	74.8	71.3	64.9	71.5	75.9	80.5	83.8	93.9	100.0	110.1	113.1	90.7	92.3
Petroleum products	114.1	107.4	100.8	94.8	90.8	83.5	69.0	84.4	88.5	95.1	98.9	100.0	103.0	117.4	107.7	104.4
Rubber and plastic products	96.1	97.1	90.4	93.4	88.9	92.2	83.0	86.8	82.1	79.9	87.3	100.0	91.0	83.1	73.1	75.6
Stone, clay and glass	107.0	108.2	98.9	90.6	78.3	85.6	86.5	82.6	82.8	87.9	95.5	100.0	99.3	98.8	90.8	90.2
Basic metals	110.8	102.6	96.4	87.5	80.4	79.7	75.3	83.7	79.1	78.8	86.1	100.0	103.4	119.7	112.4	119.8
Ferrous metals	115.9	110.6	102.8	86.9	80.0	80.9	78.2	83.5	80.3	81.6	87.1	100.0	105.3	121.5	114.7	126.3
Non-ferrous metals	92.3	81.4	78.2	87.1	77.8	73.4	64.7	81.5	73.9	70.5	83.9	100.0	98.9	115.2	106.2	103.6
Fabricated metal products and machinery	103.1	99.3	92.3	92.9	82.6	83.4	79.7	76.7	78.6	85.5	93.4	100.0	99.7	99.3	95.0	89.5
Fabricated metal products	108.6	105.1	104.5	99.1	83.9	87.0	82.8	81.7	83.6	93.3	98.8	100.0	104.7	102.6	100.2	92.0
Non-electrical machinery	133.8	113.0	86.9	83.0	80.6	77.2	68.8	69.5	75.6	87.2	88.3	100.0	97.1	98.9	88.0	85.0
Electrical machinery	110.9	111.8	100.0	105.6	94.0	87.1	85.1	78.7	77.6	87.0	91.8	100.0	100.4	108.3	95.8	97.3
Shipbuilding	49.3	73.7	69.0	68.2	80.2	126.9	95.8	89.0	97.1	69.5	85.8	100.0	111.1	87.5	92.3	..
Other transport	80.5	71.4	64.6	95.4	69.7	78.4	102.9	120.9	106.2	109.2	108.2	100.0	101.8	110.5	111.1	103.9
Motor vehicles	109.0	109.3	121.5	108.2	90.7	88.6	87.5	81.8	84.0	87.7	100.5	100.0	94.6	89.3	93.7	83.5
Aerospace	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Instruments	248.7	137.8	149.0	108.0	93.8	82.7	87.5	98.7	85.6	118.8	96.2	100.0	101.6	95.3	..	..
Other manufacturing industries	192.9	166.7	112.3	100.0	80.2	97.2	86.7	90.1	91.4	98.7	105.9	100.0	99.3	95.0	69.1	66.5

Annex Table 48: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

Spain

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	103.5	103.2	93.3	89.0	77.6	76.1	74.1	76.1	77.6	82.0	88.8	100.0	99.2	98.5	87.9	84.7
Food, drink and tobacco	96.4	99.3	89.8	86.5	71.5	70.2	71.0	77.6	76.7	81.2	89.2	100.0	98.7	95.7	85.2	84.0
Textiles, Footwear and leather	97.8	108.7	102.2	90.8	80.4	79.6	78.2	77.9	78.3	84.1	89.1	100.0	100.9	97.9	97.8	88.9
Wood, cork and furniture	95.4	108.0	93.6	78.8	73.0	74.0	78.5	74.5	76.9	86.0	93.3	100.0	102.8	103.4	100.5	104.0
Paper and printing	102.2	86.2	81.5	78.8	67.6	61.5	60.6	70.3	73.5	81.5	88.6	100.0	103.4	112.8	105.2	105.7
Chemicals	96.5	94.9	89.4	87.3	83.0	80.7	78.3	82.6	81.7	81.9	88.2	100.0	98.0	95.2	82.4	81.5
Industrial chemicals	95.7	92.6	88.0	84.4	78.4	76.0	77.9	81.3	82.4	82.9	89.5	100.0	98.7	94.0	84.2	83.4
Pharmaceuticals	75.4	78.4	75.4	76.0	71.4	67.6	73.9	77.6	79.5	82.5	92.9	100.0	109.0	111.5	89.5	88.7
Petroleum products	108.4	103.0	93.6	86.9	91.9	90.9	77.4	89.1	89.1	96.1	95.1	100.0	97.0	104.0	94.2	88.3
Rubber and plastic products	96.8	97.7	91.2	92.3	87.3	88.4	80.0	84.1	80.7	77.3	84.0	100.0	91.0	85.3	72.9	73.0
Stone, clay and glass	104.3	105.4	97.2	87.3	76.1	81.6	84.6	81.3	81.7	86.0	93.6	100.0	98.5	99.8	88.6	87.3
Basic metals	114.1	107.2	98.3	89.7	78.6	78.9	75.6	79.7	78.2	78.0	82.4	100.0	102.6	117.3	104.6	110.0
Ferrous metals	118.2	116.4	105.0	92.3	81.0	83.8	81.4	80.0	79.1	80.0	83.5	100.0	103.4	116.6	103.5	110.8
Non-ferrous metals	97.0	88.1	80.0	83.9	70.6	68.4	61.4	77.4	74.6	72.1	79.9	100.0	100.2	117.4	105.8	106.2
Fabricated metal products and machinery	100.2	99.3	89.4	89.2	77.4	76.7	74.1	72.4	75.9	82.0	89.2	100.0	99.0	99.5	92.0	85.9
Fabricated metal products	107.0	104.7	103.0	100.5	84.2	84.9	81.9	80.6	82.5	90.6	95.3	100.0	104.0	103.3	99.2	90.2
Non-electrical machinery	123.5	108.1	80.4	76.0	75.6	70.4	63.8	66.0	73.0	84.2	84.8	100.0	96.8	99.5	84.5	78.7
Electrical machinery	91.9	98.5	83.3	90.5	83.3	74.0	75.0	73.1	72.3	81.9	86.9	100.0	99.4	107.7	94.4	93.6
Shipbuilding	40.7	72.5	68.8	66.9	73.7	132.3	103.0	88.6	79.7	65.5	81.9	100.0	112.3	91.4	87.1	72.7
Other transport	57.7	54.6	53.7	75.8	58.8	66.9	86.6	96.6	93.2	95.6	99.3	100.0	101.5	107.7	100.8	86.8
Motor vehicles	116.7	120.1	129.8	115.7	91.8	88.9	86.9	79.5	83.1	84.4	95.1	100.0	92.3	88.9	92.2	84.1
Aerospace	78.0	57.9	53.1	77.2	57.2	62.4	79.9	98.3	96.8	122.2	133.7	100.0	92.4	115.2	120.0	109.3
Instruments	246.2	137.0	149.7	106.2	94.8	91.2	90.9	98.6	85.2	115.6	96.4	100.0	101.0	93.9	82.7	70.7
Other manufacturing industries	168.5	169.0	113.8	97.8	83.0	97.7	93.4	95.3	93.3	97.6	100.6	100.0	101.1	96.9	68.5	69.0

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 51: Trade-Weighted Relative Unit Labour Cost per Industry - Total price competitiveness

United Kingdom

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	93.5	114.0	120.5	113.5	103.7	99.0	102.1	96.6	97.1	103.8	98.8	100.0	102.5	95.6	85.0	85.4
Food, drink and tobacco	70.9	87.2	98.3	94.4	88.1	87.5	92.0	87.4	82.2	92.2	102.4	100.0	106.7	97.8	92.4	94.4
Textiles, Footwear and leather	81.7	102.1	106.8	103.6	94.3	91.7	95.3	91.2	86.6	96.8	97.8	100.0	104.9	107.4	91.9	94.2
Wood, cork and furniture	74.1	101.1	106.1	108.6	112.5	104.0	110.9	103.1	103.8	108.8	102.8	100.0	102.9	97.6	96.0	94.8
Paper and printing	93.2	116.9	122.7	121.2	123.1	119.9	123.4	116.4	111.2	112.4	101.0	100.0	107.6	108.3	100.1	102.4
Chemicals	89.7	109.5	118.4	111.4	103.0	97.4	97.9	92.3	96.2	103.9	100.3	100.0	98.5	92.8	84.2	85.2
Industrial chemicals	89.1	108.0	115.4	107.0	95.8	89.9	91.4	82.7	91.3	98.6	94.8	100.0	95.3	88.7	80.5	81.1
Pharmaceuticals	82.1	99.8	113.6	104.7	103.4	97.9	105.8	99.0	100.8	108.2	106.1	100.0	104.6	98.4	85.6	86.9
Petroleum products	103.6	133.4	120.1	112.6	111.7	102.2	101.3	92.4	92.9	102.4	100.5	100.0	88.9	93.1	86.4	81.1
Rubber and plastic products	82.2	102.9	112.0	108.7	99.9	98.8	100.8	104.0	104.3	111.9	107.8	100.0	102.4	96.2	86.0	85.2
Stone, clay and glass	83.9	102.5	109.5	102.6	101.5	96.4	101.8	98.1	98.4	104.9	105.7	100.0	97.1	91.4	84.3	82.5
Basic metals	118.8	158.4	139.3	116.3	99.5	97.5	104.0	99.3	97.2	103.9	98.9	100.0	103.6	99.0	95.0	94.9
Ferrous metals	122.3	168.6	147.8	122.5	109.0	108.1	112.3	103.2	97.9	105.8	102.7	100.0	103.6	98.8	96.0	98.6
Non-ferrous metals	113.9	138.6	137.6	125.3	96.3	88.4	95.7	93.1	97.2	104.7	94.5	100.0	105.6	99.6	94.0	89.7
Fabricated metal products and machinery	97.6	118.7	123.1	114.5	103.4	97.4	100.2	95.5	99.8	105.8	96.0	100.0	103.4	94.2	82.3	82.7
Fabricated metal products	81.8	104.4	106.0	98.9	93.9	94.3	101.4	106.7	101.2	104.6	97.1	100.0	107.3	102.8	92.5	90.1
Non-electrical machinery	87.3	107.3	108.4	97.5	93.8	90.8	95.3	93.4	99.1	106.7	100.2	100.0	106.2	105.9	93.7	90.3
Electrical machinery	90.9	114.7	117.5	112.0	101.6	99.3	108.0	103.5	110.8	114.5	103.2	100.0	109.3	101.0	81.9	83.7
Shipbuilding	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other transport	136.8	155.8	169.7	185.0	159.7	139.5	140.9	104.4	102.9	97.2	86.7	100.0	91.1	70.8	61.8	70.5
Motor vehicles	98.3	113.5	130.2	120.4	106.1	98.5	99.8	89.9	89.5	92.9	92.7	100.0	96.3	78.3	71.8	73.8
Aerospace	157.9	160.8	129.8	147.0	125.8	114.3	104.1	86.9	113.7	135.1	92.4	100.0	94.8	79.0	73.3	72.1
Instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other manufacturing industries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Annex Table 52: Trade-Weighted Relative Unit Labour Cost per Industry - Competitiveness among exporters

United Kingdom

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total manufacturing	95.1	116.5	120.6	112.7	101.6	96.5	99.6	94.3	96.0	101.9	96.8	100.0	101.9	95.3	83.0	82.8
Food, drink and tobacco	74.3	89.9	97.7	93.2	84.1	81.6	86.2	85.5	82.7	93.1	100.5	100.0	104.7	96.8	90.6	92.7
Textiles, Footwear and leather	80.3	101.5	107.2	102.2	92.5	89.1	93.5	90.5	86.2	96.2	96.9	100.0	105.1	107.6	90.8	93.3
Wood, cork and furniture	71.9	99.7	104.7	103.7	103.6	96.2	103.6	100.7	102.1	107.3	101.1	100.0	103.7	98.1	91.5	91.1
Paper and printing	92.2	116.0	121.4	118.2	117.3	113.3	115.7	112.9	109.5	110.3	98.8	100.0	106.3	106.5	94.8	97.4
Chemicals	92.5	112.4	118.6	109.3	100.0	93.7	94.6	90.5	96.2	102.7	98.8	100.0	98.1	93.0	82.8	82.9
Industrial chemicals	91.5	110.1	115.5	107.3	95.7	88.6	89.4	81.9	91.7	98.3	94.3	100.0	95.4	89.1	80.2	80.7
Pharmaceuticals	80.4	96.3	112.1	104.5	103.6	99.0	106.3	98.7	100.8	107.7	105.4	100.0	104.3	97.7	84.5	84.0
Petroleum products	112.2	143.8	137.6	115.4	111.7	98.1	96.8	92.9	97.5	105.4	101.3	100.0	93.3	96.7	84.2	82.5
Rubber and plastic products	86.1	106.4	114.4	109.2	98.5	95.7	98.2	102.0	104.1	109.8	105.6	100.0	101.8	96.4	84.8	83.4
Stone, clay and glass	86.7	106.4	111.9	104.2	102.4	95.1	101.3	96.8	97.9	103.2	103.5	100.0	96.5	91.2	82.9	81.3
Basic metals	123.3	162.0	148.7	124.7	101.2	100.0	105.5	95.5	94.5	102.5	98.6	100.0	102.2	96.0	88.6	88.1
Ferrous metals	127.8	178.2	155.4	126.9	104.2	106.2	110.9	97.1	94.5	102.1	100.4	100.0	100.9	94.2	86.6	87.3
Non-ferrous metals	114.2	135.3	137.4	126.0	95.2	89.1	96.7	91.9	96.2	106.4	95.8	100.0	106.5	100.1	93.4	91.1
Fabricated metal products and machinery	96.5	119.6	121.8	113.0	100.9	95.1	98.7	93.1	97.9	102.9	93.7	100.0	102.8	93.9	80.6	80.2
Fabricated metal products	82.1	105.4	104.9	99.6	92.2	91.1	99.7	105.3	100.4	103.0	95.1	100.0	106.7	102.9	92.1	89.1
Non-electrical machinery	86.0	107.2	108.4	97.8	94.1	91.6	97.3	94.0	98.9	105.2	98.9	100.0	105.9	105.6	90.6	86.4
Electrical machinery	80.8	106.5	109.1	106.5	98.3	97.0	105.8	100.7	107.3	111.1	100.8	100.0	108.4	99.4	80.0	80.9
Shipbuilding	58.9	84.6	89.4	85.3	71.1	72.3	75.8	68.5	70.7	83.6	79.1	100.0	86.3	84.2	75.9	68.6
Other transport	91.9	124.8	140.1	151.6	137.6	127.4	125.8	91.6	95.2	88.3	80.4	100.0	90.7	68.8	58.7	59.4
Motor vehicles	97.8	116.1	128.0	116.6	99.2	91.0	90.4	85.2	87.0	90.4	89.9	100.0	94.1	77.7	71.7	72.7
Aerospace	156.4	159.9	136.5	154.9	136.6	127.5	119.3	90.6	112.5	132.7	94.6	100.0	95.9	78.9	74.4	75.4
Instruments	88.6	111.9	107.5	110.9	92.9	83.3	87.5	87.5	90.5	100.5	94.4	100.0	101.0	92.8	71.5	68.3
Other manufacturing industries	75.7	88.0	99.7	101.3	85.9	103.6	107.7	96.7	103.1	110.3	103.8	100.0	107.0	103.4	83.0	78.0

Source: OECD, DSTI (STAN Industrial Database), 1996.

Annex Table 55. Calculation of total price competitiveness: country exclusions due to missing data

Industry	Countries	Period
Textiles, footwear and leather	Netherlands	entire period
Chemicals	Belgium/Luxembourg	1994
Industrial Chemicals	Belgium/Luxembourg	entire period
	Netherlands	1993-1994
Pharmaceuticals	Belgium/Luxembourg	1994
Petroleum products	Netherlands	1985-1986
Basic metals	Belgium/Luxembourg, Denmark, Netherlands	entire period
Ferrous metals	Belgium/Luxembourg, Denmark, Netherlands	entire period
Non-ferrous metals	Belgium/Luxembourg, Denmark, Netherlands	entire period
Fabricated metal products and machinery	Netherlands	1993
Non-electrical machinery	Austria, Belgium/Luxembourg	entire period
Electrical machinery	Belgium/Luxembourg, Netherlands	entire period
Shipbuilding	Austria	1979 and 1992
	Belgium/Luxembourg, United Kingdom	entire period
	Finland	1984
	Norway	1985-1986
	Spain	1994
	Sweden	1993-1994
Other transport	Belgium/Luxembourg, Japan	entire period
Motor vehicles	Belgium/Luxembourg, Denmark, Netherlands	entire period
	Finland	1992-1994
Aerospace	Austria, Belgium/Luxembourg, Denmark, Western Germany, Greece, Netherlands, Portugal, Spain	entire period
Instruments	Austria, Belgium/Luxembourg, Denmark, Greece, Netherlands, Norway, United Kingdom	entire period
	Portugal	1980-1981 and 1990
	Spain	1993-1994
	Sweden	1984
Other manufacturing industries	Austria, Belgium/Luxembourg, Netherlands, United Kingdom	entire period

All calculations are based on data from the STAN Database for Industrial Analysis (OECD 1996) and Bilateral Trade Database (OECD 1997).

Annex - Table 56. Correlation between measures of total price competitiveness and competitiveness among exporters

	Australia	Austria	Belgium / Luxembourg	Canada	Denmark	Finland	France	Western Germany	Greece
Total manufacturing	0.989	0.715	0.998	0.417	0.981	0.975	0.666	0.971	0.960
Food, drink and tobacco	0.988	0.571	0.985	0.857	0.973	0.976	0.732	0.962	0.938
Textiles, Footwear and leather	0.973	0.994	0.998	0.596	0.998	0.993	0.894	0.965	0.998
Wood, cork and furniture	0.967	0.565	0.993	0.589	0.991	0.977	0.552	0.971	0.989
Paper and printing	0.984	0.810	0.984	0.545	0.957	0.979	0.879	0.955	0.979
Chemicals	0.976	0.784	0.985	0.339	0.987	0.959	0.892	0.988	0.943
Industrial chemicals	0.963	0.666	..	0.287	0.997	0.964	0.958	0.995	0.956
Pharmaceuticals	0.977	0.991	0.996	0.906	0.996	0.981	0.999	0.991	0.989
Petroleum products	0.827	0.965	0.994	0.546	0.982	0.971	0.982	0.971	0.922
Rubber and plastic products	0.981	0.944	0.993	0.542	0.981	0.977	0.801	0.985	0.970
Stone, clay and glass	0.995	0.932	0.996	0.346	0.976	0.964	0.892	0.971	0.975
Basic metals	0.984	0.979	..	0.848	..	0.887	0.958	0.913	0.953
Ferrous metals	0.991	0.971	..	0.777	..	0.898	0.950	0.706	0.850
Non-ferrous metals	0.951	0.847	..	0.835	..	0.928	0.953	0.986	0.967
Fabricated metal products and machinery	0.991	0.990	0.994	0.393	0.993	0.978	0.800	0.991	0.973
Fabricated metal products	0.995	0.891	0.992	0.397	0.994	0.970	0.843	0.976	0.973
Non-electrical machinery	0.960	..	..	0.428	0.995	0.955	0.829	0.985	0.987
Electrical machinery	0.977	0.991	..	0.171	0.983	0.993	0.887	0.990	0.920
Shipbuilding	0.922	0.945	..	0.966	0.893	0.908	0.917	0.992	0.957
Other transport	0.974	0.860	..	0.624	0.983	0.867	0.679	0.936	0.387
Motor vehicles	0.990	0.925	..	0.813	..	0.965	0.909	0.984	0.980
Aerospace	0.899	..	..	0.839	..	0.993	0.980	..	..
Instruments	0.871	..	..	0.663	..	0.989	0.985	0.985	..
Other manufacturing industries	0.897	0.442	0.945	0.805	0.977	0.662	0.995
Average	0.959	0.867	0.992	0.590	0.978	0.952	0.871	0.949	0.935

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Annex - Table 56. Correlation between measures of total price competitiveness and competitiveness among exporters (continued)

	Italy	Japan	Netherlands	Norway	Portugal	Spain	Sweden	United Kingdom	United States
Total manufacturing	0.956	0.972	0.984	0.805	0.976	0.994	0.997	0.991	0.971
Food, drink and tobacco	0.914	0.993	0.978	0.963	0.992	0.992	0.986	0.954	0.970
Textiles, Footwear and leather	0.997	0.991	..	0.973	0.990	0.977	0.985	0.996	0.995
Wood, cork and furniture	0.911	0.987	0.915	0.674	0.994	0.980	0.932	0.944	0.725
Paper and printing	0.946	0.976	0.861	0.536	0.978	0.997	0.981	0.973	0.710
Chemicals	0.974	0.974	0.940	0.953	0.991	0.985	0.989	0.981	0.974
Industrial chemicals	0.966	0.974	0.987	0.962	0.983	0.977	0.992	0.995	0.980
Pharmaceuticals	0.993	0.943	0.971	0.925	0.999	0.992	0.982	0.992	0.966
Petroleum products	0.955	0.977	0.980	0.974	0.989	0.837	0.853	0.960	0.749
Rubber and plastic products	0.988	0.991	0.978	0.758	0.991	0.979	0.995	0.973	0.976
Stone, clay and glass	0.990	0.981	0.660	0.904	0.970	0.991	0.985	0.978	0.985
Basic metals	0.945	0.979	..	0.941	0.964	0.969	0.994	0.987	0.932
Ferrous metals	0.847	0.986	..	0.949	0.975	0.942	0.987	0.993	0.941
Non-ferrous metals	0.961	0.994	..	0.941	0.864	0.975	0.992	0.997	0.729
Fabricated metal products and machinery	0.953	0.937	0.982	0.871	0.970	0.990	0.996	0.996	0.988
Fabricated metal products	0.969	0.929	0.895	0.900	0.975	0.991	0.985	0.988	0.982
Non-electrical machinery	0.995	0.986	0.977	0.850	0.965	0.985	0.985	0.980	0.994
Electrical machinery	0.806	0.803	..	0.956	0.988	0.835	0.984	0.962	0.980
Shipbuilding	0.956	0.959	0.991	0.946	0.754	0.966	0.995	..	0.972
Other transport	0.985	..	0.794	0.906	0.851	0.927	0.977	0.958	0.955
Motor vehicles	0.950	0.981	..	0.944	0.925	0.978	0.993	0.979	0.822
Aerospace	0.995	0.962	..	0.890	..	..	0.979	0.982	0.964
Instruments	0.993	0.942	..	..	0.993	0.998	0.982	..	0.987
Other manufacturing industries	0.818	0.906	..	0.910	0.948	0.984	0.990	..	0.931
Average	0.948	0.962	0.926	0.888	0.958	0.967	0.980	0.979	0.924

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