

Research Project "Foreign Direct Investment - East and West: The Experiences of the Czech Republic, Hungary, Poland, Portugal and Spain"¹.

Intra-Industry and Inter-Industry Trade and Specialization in Portugal: 1989-1992².

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Intra-Industry and Inter-Industry Trade and Specialization in Portugal: 1989-1992.

ABSTRACT: This paper presents a measurement of intra and inter-industry trade and specialization in the Portuguese foreign trade in 1989-1992. It uses both Balassa's "B" Index and the Aquino "Corrected" Coefficient. Intra-industry trade increased, but was partially reversed at the end of the period. This was probably due to the recession and declining imports.

1. Introduction.

This paper tries to provide some evidence on the problem of inter-industry and intra-industry specialization on the Portuguese trade in 1989-1992. This was a period of serious and widening imbalances in the balance of trade.

The distinction between inter-industry specialization and intra-industry specialization (or "two-way trade"³) is by itself essential, since it is linked to different market structure.

Furthermore, the amount of trade associated to intra-industry trade can be surprisingly great. Both Hipple⁴ and UNCTC⁵ reach the conclusion that over a third of US trade flows is intra-industry related (Hipple's figures are 34.2% for all foreign trade in 1982). Bonturi & Fukasaku⁶, using OECD trade data for the US and Japan in overseas trade, point to 33.5% in 89 for intra-industry trade in the USA (their series from the US goes from 1977 to 1989, and the ratio is a fairly stable one, around a third of total trade), and to 32.7% (exports) and 28.7% (imports) for the Japanese foreign trade in 89.

³Of course that depends on the degree and kind of homogeneity in each statistical group considered. They are not always (to say the least) constructed according to an economic logic: namely, regarding the elasticity of substitution between products.

⁴See Hipple, F., 1990.

⁵See UNCTC, 1988.

⁶See Bonturi & Fukasaku, 1993.

2. Portuguese Trade Patterns.

The 1989-1993 period was characterized by a persistent, large and growing trade deficits of the Portuguese balance of trade⁷ with respect to all groups of countries considered by us: the World (total external trade), the OECD countries (Organization for Economic Cooperation and Development), the EU countries (European Union, only the 12), the EFTA countries (European Free Trade Association) and Non-OECD Countries, that is, the World minus the OECD countries (see Table I below).

Table I
Portuguese Foreign Trade⁸, 1989-1992.

1989	TCR	Total Imports	Total Exports	1990	TCR	Total Imports	Total Exports
World	0.65	2947183029	1923708739	World	0.64	3527389116	2252107628
OECD	0.72	2479657288	1785868511	OECD	0.70	2970398298	2093449771
EU	0.70	2040789179	1435115636	EU	0.69	2476270920	1711273211
EFTA	1.08	178382324	193062707	EFTA	1.04	220502045	229333299
Non-OECD	0.29	467525741	137840228	Non-OECD	0.05	3306887007	158657857

1991	TCR	Total Imports	Total Exports	1992	TCR	Total Imports	Total Exports
World	0.62	3724487394	2308323077	World	0.60	4023639270	2422136774
OECD	0.66	3194269102	2100470093	OECD	0.62	3501971393	2163318479
EU	0.65	2708062027	1755450498	EU	0.61	2984277142	1830612885
EFTA	0.99	220575658	218296540	EFTA	0.87	239186641	208662578
Non-OECD	0.48	265631417	126723055	Non-OECD	0.45	278507610	124043016

sources: Eurostat; INE (Portuguese National Institute of Statistics).

The trade coverage ratio (TCR), that is, exports divided by imports declined from 65% to 60% in 1988/92, and Portugal enlarged its trade imbalance, with all countries' groups considered above. This deficit prevailed even regarding EFTA, with whom Portugal had traditionally a trade balance surplus. The higher variability of the trade coverage ratio with the Non-OECD Countries reflects partially the declining oil prices and huge changes on trade with countries such as Angola - a former Portuguese African colony - in 1992.

In fact, at 2-digits level of the Combined Nomenclature (the standard system of trade classification used by the European Union), less than a quarter of the 99 industries covered show a surplus on trade balances (see Table II next page).

⁷Due to the absence of a real monetary union (that is, the persistence of exchange rate risk in foreign trade) within the European Union, trade with EU's partner countries is still counted in this paper as imports and exports, and not, as by the INE, as "arrivals" and "departures".

⁸ This data -since its going to be used on trade specialization calculations- is on trade of goods only. Services are not included.

Table II⁹

1989	1990
Largest Importers: 27,52,72,84,85,87 (53% of total imports).	Largest Importers: 27,39, 52,84,85,87 (52% of total imports).
Largest Exporters: 47,61,62,64,84,85,87 (47% of total exports).	Largest Exporters: 61,62,64,84,85,87 (48% of total exports).
Net Exporters (25): 04,16,20,22,26,42,43,44,45, 46,47,56,57,61,62,63,64,65,66,68,69,70,89,93,99 (58% of total exports).	Net Exporters (23): 04,15, 16,20,22, 26,43,44,45, 46,47,56,57,61,62,63,64,66,68,69,70,93,99 (57% of total exports).

1991	1992
Largest Importers: 03,27,39,84,85,87 (51% of total imports).	Largest Importers: 03,27,39,84,85,87 (51% of total imports).
Largest Exporters: 61,62,64,84,85,87 (49% of total exports).	Largest Exporters: 61,62,64,84,85,87 (51% of total exports).
Net Exporters (20): 04,13, 16,20,22, 26,43,44,45,47,56,61,62,63,64,68,69,70,93,99 (56% of total exports).	Net Exporters (22): 04,13,15,16,20,22, 26,44,45,47,56,61,62,63,64,66,68,69,89,70,93,99 (56% of total exports).

The only industries that are net exporters (and not all of them in every year) are the following:

04: DAIRY PRODUCE; BIRDS' EGGS; NATURAL HONEY; EDIBLE PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED
13: LACS; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS
15: ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES
16: PREPARATIONS OF MEAT, OF FISH OR OF CRUSTACEANS, MOLLUSKS OR OTHER AQUATIC INVERTEBRATES
20: PREPARATIONS OF VEGETABLES, FRUIT, NUTS OR OTHER PARTS OF PLANTS
22: BEVERAGES, SPIRITS AND VINEGAR
26: ORES, SLAG AND ASH
43: FORESKINS AND ARTIFICIAL FUR; MANUFACTURES THEREOF
44: WOOD AND ARTICLES OF WOOD; WOOD CHARCOAL
45: CORK AND ARTICLES OF CORK
46: MANUFACTURES OF STRAW, OF ESPARTO OR OF OTHER PLAITING MATERIALS; BASKET WARE AND WICKERWORK
47: PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; WASTE AND SCRAP OF PAPER OR PAPERBOARD
56: WADDING, FELT AND NON-WOVEN; SPECIAL YARNS; TWINE, CORDAGE, ROPES AND CABLES AND ARTICLES THEREOF
57: CARPETS AND OTHER TEXTILE FLOOR COVERINGS
61: ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED
62: ARTICLES OF APPAREL AND CLOTHING ACCESSORIES , NOT KNITTED OR CROCHETED
63: OTHER MADE UP TEXTILE ARTICLES; SETS; WORN CLOTHING AND WORN TEXTILE ARTICLES; RAGS
64: FOOTWEAR, GAITERS AND THE LIKE; PARTS OF SUCH ARTICLES
65: HEADGEAR AND PARTS THEREOF
66: UMBRELLAS, SUN UMBRELLAS, WALKING-STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF
70: GLASS AND GLASSWARE
89: SHIPS, BOATS AND FLOATING STRUCTURES
93: ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF
99: OTHER PRODUCTS

The exporting industries are those related to natural resources, and "traditional" industries (like textiles, footwear, apparel, glass and boats).

⁹For the meaning of each industry's classification, see Annex I.

They are essentially labor-intensive industries, reflecting the relative factor endowment.

Nevertheless, is interesting to remark that some of the most important *importing* industries are also among the most important *exporting* industries, such as the industries 84 (nuclear reactors, boilers, machinery and mechanical appliances; parts thereof), 85 (electrical machinery and equipment and parts thereof; sound recorders and reproducers, television's image and sound recorders and reproducers, and parts and accessories of such articles) and 87 (vehicles other than railway or tramway rolling-stock, and parts and accessories thereof), as we may see back at Table II.

3. Techniques of Measurement of Trade Concentration

We begin our analysis by calculating the most traditional measure of trade specialization, the so called Balassa's "B" coefficient (see Balassa, 1974), This is defined as

$$B = (1/n) \sum_k^n [|X_k - M_k| / (X_k + M_k)]$$

where

X_k = Portugal's exports of product k to the group of countries considered.

M_k = Portugal's total imports of product k from the group of countries considered.

n = total number of products.

It is easy to see that, when $\sum X_k$ differs too much from $\sum M_k$, the Balassa "B" coefficient is biased toward unity. That is, it overestimates inter-industry specialization. Aquino (1978), among others¹⁰ proposed a corrected coefficient¹¹, defined as

$$A = \frac{\sum_{i=1}^n |X_i^e - M_i^e|}{\sum_{i=1}^n (X_i + M_i)}$$

where

$$X_i^e = \frac{X_i \sum_{i=1}^n (X_i - M_i)}{2 * \sum_{i=1}^n X_i}$$

and similarly for M_i^e ¹².

¹⁰See Glejser, H.; 1982.

¹¹Balassa himself recognized the *bias* of its coefficient, and provided later an interesting corrected version of it in a paper with Bauwens. See Balassa, B. & Bauwens, L.; 1988.

¹²We must note that Glejser also criticizes a possibly *bias* in the Aquino's corrected coefficient and develops its own version. We will, nevertheless, restrict our results in this paper to the first version of the Balassa's coefficient and to the Aquino's "corrected" version. See Glejser, H.; *ibid*.

4. Data and Results.

We used data for all 99 2-digit sectors of the Combined Nomenclature, that covered the primary and secondary sectors (see Annex I), for the period 1989 to 1992.

The Portuguese coefficients are also shown for the following aggregates: the World (total external trade), the OECD countries (Organization for Economic Cooperation and Development), the EU countries (the European Union, only the 12), the EFTA countries (European Free Trade Association) and Non-OECD Countries (that is, the World minus the OECD countries). The results are show below¹³.

Balassa's Coefficients

YEAR	WORLD	OECD	EU	EFTA	NON-OECD
1989	0.56	0.56	0.56	0.68	0.65
1990	0.55	0.55	0.56	0.66	0.83
1991	0.55	0.55	0.55	0.69	0.68
1992	0.56	0.57	0.57	0.68	0.70
Average	0.55	0.56	0.56	0.68	0.71
St. Dev.	0.002	0.005	0.005	0.009	0.059

Aquino's Coefficients

YEAR	WORLD	OECD	EU	EFTA	NON-OECD
1989	0.72	0.73	0.73	0.85	0.78
1990	0.51	0.52	0.48	0.77	0.75
1991	0.40	0.42	0.37	0.65	1.00
1992	0.55	0.58	0.55	0.77	0.46
Average	0.55	0.56	0.54	0.76	0.75
St. Dev.	0.088	0.091	0.106	0.055	0.145

B,A = 1: total inter-industry specialization; 0: total intra-industry specialization.
sources: Eurostat; INE (Portuguese National Institute of Statistics).

We may note that the results for the Balassa Index are almost textbook results: Portugal has a higher index for intra-industry trade (that is, a low coefficient) the more similar (and more developed) is the partner-aggregate's productive structure. The coefficients are also fairly stable during the period covered.

Yet, the results for the Aquino's coefficient seem to be much more revealing and also somewhat surprising: they show a marked trend *toward* intra-industry concentration especially during the initial three years (1989/91). This seems to be a natural consequence of the Portuguese integration process in the European Union, of a more liberalized economy regarding imports.

¹³Desegregated results by individual industries and industry sectors are available from the author on request.

These trends may also be due to the to the opening of full industries closed up to recently, such is the case of the industries which were closed up to 1986 and that were only partially opened during the transition period for membership. These industries were only fully opened in 1989. They are industries with large economies of scale, which is the most important source of intra-industry trade¹⁴. The substantial increase in FDI after 1988 and a slowdown in 1992/94 may also explain these trends in intra-firm and intra industry trade.

The majority of the reversal in 1992 seems to be due to the fall of intra-industry trade with the EU's partner-countries. The EU is, by far, the most important external market for Portuguese goods, absorbing over three-quarters of the Portuguese exports of goods during the period. The coefficient rises almost 50% in only one year, probably as a side-effect of the cyclical downturn in the Union, dragging the whole index down with it. The higher volatility of the coefficient for the Non-OECD Countries is a natural consequence of its instability.

To test the consistency of our results, we used also data for all 4-digit sectors of the Combined Nomenclature (over 1200 industries), that covered also the primary and secondary sectors, for same period and the same groups of countries. The results are show below¹⁵.

Balassa's Coefficients

YEAR	WORLD	OECD	EU	EFTA	NON-OECD
1989	0.71	0.72	0.72	0.69	0.73
1990	0.68	0.70	0.70	0.59	0.50
1991	0.68	0.71	0.71	0.63	0.66
1992	0.68	0.70	0.70	0.59	0.62
Average	0.69	0.71	0.71	0.63	0.62
St. Dev.	0.016	0.010	0.009	0.047	0.096

Aquino's Coefficients

YEAR	WORLD	OECD	EU	EFTA	NON-OECD
1989	0.70	0.71	0.68	0.89	0.89
1990	0.67	0.68	0.65	0.87	0.86
1991	0.65	0.66	0.65	0.85	0.88
1992	0.64	0.65	0.63	0.85	0.90
Average	0.66	0.67	0.65	0.87	0.88
St. Dev.	0.028	0.024	0.023	0.017	0.017

B,A = 1: total inter-industry specialization; 0: total intra-industry specialization.
sources: Eurostat; INE (Portuguese National Institute of Statistics).

¹⁴See Krugman, P. & Obstfeld, M., 1991.

¹⁵Desegregated results by individual industries and industry sectors are also available from the author on request.

The results for 4-digit level confirm the results obtained at 2-digit level, except in one important point: the trend toward intra-industry concentration in trade is a steady one during the whole period. There a certain loss in the speed of the trend in 91/92, but no reversal, at least during the first years of the economic downturn in continental Europe.

Further data for the following years will show if this trade trend has continued, or if its reversal or loss of speed were only temporary side-effects of the recent European economic downturn on its periphery.

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ANNEX I:

The Combined Nomenclature, 2-digits level.

Agriculture, Food Industry and Quarrying: 01 to 24.

Mining: 25 to 27.

Manufacturing (including metal works): 25 to 95, plus 98.

Others: 97 and 99.

Product 01	: 88 - 91 LIVE ANIMALS
Product 02	: 88 - 91 MEAT AND EDIBLE MEAT OFFALL
Product 03	: 88 - 91 FISH AND CRUSTACEANS, MOLLUSKS AND OTHER AQUATIC INVERTEBRATES
Product 04	: 88 - 91 DAIRY PRODUCE; BIRDS' EGGS; NATURAL HONEY; EDIBLE PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED
Product 05	: 88 - 91 PRODUCTS OF ANIMAL ORIGIN NOT ELSEWHERE SPECIFIED OR INCLUDED
Product 06	: 88 - 91 LIVE TREES AND OTHER PLANTS; BULBS, ROOTS AND THE LIKE; CUT FLOWERS AND ORNAMENTAL FOLIAGE
Product 07	: 88 - 91 EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS
Product 08	: 88 - 91 EDIBLE FRUIT AND NUTS; PEEL OF CITRUS FRUITS OR MELONS
Product 09	: 88 - 91 COFFEE, TEA, MATE AND SPICES
Product 10	: 88 - 91 CEREALS
Product 11	: 88 - 91 PRODUCTS OF THE MILLING INDUSTRY; MALT; STARCHES; INSULIN; WHEAT GLUTEN
Product 12	: 88 - 91 OIL SEEDS AND OLEAGINOUS FRUITS; MISCELLANEOUS GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICAL PLANTS; STRAW AND FODDER.
Product 13	: 88 - 91 LACS; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS
Product 14	: 88 - 91 VEGETABLE PLAITING MATERIALS; VEGETABLE PRODUCTS NOT ELSEWHERE SPECIFIED OR INCLUDED
Product 15	: 88 - 91 ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES
Product 16	: 88 - 91 PREPARATIONS OF MEAT, OF FISH OR OF CRUSTACEANS, MOLLUSKS OR OTHER AQUATIC INVERTEBRATES
Product 17	: 88 - 91 SUGARS AND SUGAR CONFECTIONERY
Product 18	: 88 - 91 COCOA AND COCOA PREPARATIONS
Product 19	: 88 - 91 PREPARATIONS OF CEREALS, FLOUR, STARCH OR MILK; PASTRY COOKS' PRODUCTS
Product 20	: 88 - 91 PREPARATIONS OF VEGETABLES, FRUIT, NUTS OR OTHER PARTS OF PLANTS
Product 21	: 88 - 91 MISCELLANEOUS EDIBLE PREPARATIONS
Product 22	: 88 - 91 BEVERAGES, SPIRITS AND VINEGAR
Product 23	: 88 - 91 RESIDUES AND WASTE FROM THE FOOD INDUSTRIES; PREPARED ANIMAL FODDER
Product 24	: 88 - 91 TOBACCO AND MANUFACTURED TOBACCO SUBSTITUTES
Product 25	: 88 - 91 SALT; SULFUR; EARTH AND STONE; PLASTERING MATERIAL, LIME AND CEMENT
Product 26	: 88 - 91 ORES, SLAG AND ASH
Product 27	: 88 - 91 MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES
Product 28	: 88 - 91 INORGANIC CHEMICALS: ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE-EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES
Product 29	: 88 - 91 ORGANIC CHEMICALS
Product 30	: 88 - 91 PHARMACEUTICAL PRODUCTS
Product 31	: 88 - 91 FERTILIZERS
Product 32	: 88 - 91 TANNING OR DYEING EXTRACTS; TANNINS AND THEIR DERIVATIVES; DYES, PIGMENTS AND OTHERS COLORING MATTER; PAINTS AND VARNISHES; PUTTY AND OTHER MASTICS; INKS
Product 33	: 88 - 91 ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS
Product 34	: 88 - 91 SOAP, ORGANIC SURFACE-ACTIVE AGENTS, WASHING PREPARATIONS, LUBRICATING PREPARATIONS, ARTIFICIAL WAXES, PREPARED WAXES, POLISHING OR SCOURING PREPARATIONS, CANDLES AND SIMILAR ARTICLES, MODELING PASTES, 'DENTAL WAXES' AND DENTAL PREPARATIONS WITH A BASIS OF PLASTER
Product 35	: 88 - 91 ALBUMINOIDAL SUBSTANCES; MODIFIED STARCHES; GLUES; ENZYMES
Product 36	: 88 - 91 EXPLOSIVES; PYROTECHNIC PRODUCTS; MATCHES; PYROPHORIC ALLOYS; CERTAIN COMBUSTIBLE PREPARATIONS
Product 37	: 88 - 91 PHOTOGRAPHIC OR CINEMATOGRAPHIC GOODS

Product 38	: 88 - 91 MISCELLANEOUS CHEMICAL PRODUCTS
Product 39	: 88 - 91 PLASTICS AND ARTICLES THEREOF
Product 40	: 88 - 91 RUBBER AND ARTICLES THEREOF
Product 41	: 88 - 91 RAW HIDES AND SKINS (OTHER THAN FORESKINS) AND LEATHER
Product 42	: 88 - 91 ARTICLES OF LEATHER; SADDLERY AND HARNESS; TRAVEL GOODS, HANDBAGS AND SIMILAR CONTAINERS; ARTICLES OF ANIMAL GUT (OTHER THAN SILK-WORM GUT)
Product 43	: 88 - 91 FORESKINS AND ARTIFICIAL FUR; MANUFACTURES THEREOF
Product 44	: 88 - 91 WOOD AND ARTICLES OF WOOD; WOOD CHARCOAL
Product 45	: 88 - 91 CORK AND ARTICLES OF CORK
Product 46	: 88 - 91 MANUFACTURES OF STRAW, OF ESPARTO OR OF OTHER PLAITING MATERIALS; BASKETWARE AND WICKERWORK
Product 47	: 88 - 91 PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; WASTE AND SCRAP OF PAPER OR PAPERBOARD
Product 48	: 88 - 91 PAPER AND PAPERBOARD; ARTICLES OF PAPER PULP , OF PAPER OR OF PAPERBOARD
Product 49	: 88 - 91 PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRODUCTS OF THE PRINTING INDUSTRY; MANUSCRIPTS, TYPESCRIPTS AND PLANS
Product 50	: 88 - 91 SILK
Product 51	: 88 - 91 WOOL, FINE OR COARSE ANIMAL HAIR; HORSEHAIR YARN AND WOVEN FABRIC
Product 52	: 88 - 91 COTTON
Product 53	: 88 - 91 OTHER VEGETABLE TEXTILE FIBBERS; PAPER YARN AND WOVEN FABRICS OF PAPER YARN
Product 54	: 88 - 91 MAN-MADE FILAMENTS
Product 55	: 88 - 91 MAN-MADE STAPLE FIBBERS
Product 56	: 88 - 91 WADDING, FELT AND NON-WOVEN; SPECIAL YARNS; TWINE, CORDAGE, ROPES AND CABLES AND ARTICLES THEREOF
Product 57	: 88 - 91 CARPETS AND OTHER TEXTILE FLOOR COVERINGS
Product 58	: 88 - 91 SPECIAL WOVEN FABRICS; TUFTED TEXTILE FABRICS; LACE; TAPESTRIES; TRIMMINGS; EMBROIDERY
Product 59	: 88 - 91 IMPREGNATED, COATED, COVERED OR LAMINATED TEXTILE FABRICS; TEXTILE ARTICLES OF A KIND SUITABLE FOR INDUSTRIAL USE
Product 60	: 88 - 91 KNITTED OR CROCHETED FABRICS
Product 61	: 88 - 91 ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED
Product 62	: 88 - 91 ARTICLES OF APPAREL AND CLOTHING ACCESSORIES , NOT KNITTED OR CROCHETED
Product 63	: 88 - 91 OTHER MADE UP TEXTILE ARTICLES; SETS; WORN CLOTHING AND WORN TEXTILE ARTICLES; RAGS
Product 64	: 88 - 91 FOOTWEAR, GAITERS AND THE LIKE; PARTS OF SUCH ARTICLES
Product 65	: 88 - 91 HEADGEAR AND PARTS THEREOF
Product 66	: 88 - 91 UMBRELLAS, SUN UMBRELLAS, WALKING-STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF
Product 67	: 88 - 91 PREPARED FEATHERS AND DOWN AND ARTICLES MADE OF FEATHERS OR OF DOWN; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR
Product 68	: 88 - 91 ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS
Product 69	: 88 - 91 CERAMIC PRODUCTS
Product 70	: 88 - 91 GLASS AND GLASSWARE
Product 71	: 88 - 91 NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES, PRECIOUS METALS, METALS CLAD WITH PRECIOUS METAL, AND ARTICLES THEREOF; IMITATION JEWELRY; COIN
Product 72	: 88 - 91 IRON AND STEEL
Product 73	: 88 - 91 ARTICLES OF IRON OR STEEL
Product 74	: 88 - 91 COPPER AND ARTICLES THEREOF
Product 75	: 88 - 91 NICKEL AND ARTICLES THEREOF
Product 76	: 88 - 91 ALUMINUM AND ARTICLES THEREOF
Product 78	: 88 - 91 LEAD AND ARTICLES THEREOF
Product 79	: 88 - 91 ZINC AND ARTICLES THEREOF
Product 80	: 88 - 91 TIN AND ARTICLES THEREOF
Product 81	: 88 - 91 OTHER BASE METALS; CERMETS; ARTICLES THEREOF
Product 82	: 88 - 91 TOOLS, IMPLEMENTS, CUTLERY, SPOONS AND FORKS , OF BASE METAL; PARTS THEREOF OF BASE METAL
Product 83	: 88 - 91 MISCELLANEOUS ARTICLES OF BASE METAL
Product 84	: 88 - 91 NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF

Product 85	: 88 - 91 ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES
Product 86	: 88 - 91 RAILWAY OR TRAMWAY LOCOMOTIVES, ROLLING-STOCK AND PARTS THEREOF; RAILWAY OR TRAMWAY TRACK FIXTURES AND FITTINGS AND PARTS THEREOF; MECHANICAL (INCLUDING ELECTRO-MECHANICAL) TRAFFIC SIGNALING EQUIPMENT OF ALL KINDS
Product 87	: 88 - 91 VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING-STOCK, AND PARTS AND ACCESSORIES THEREOF
Product 88	: 88 - 91 AIRCRAFT, SPACECRAFT, AND PARTS THEREOF
Product 89	: 88 - 91 SHIPS, BOATS AND FLOATING STRUCTURES
Product 90	: 88 - 91 OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASURING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; PARTS AND ACCESSORIES THEREOF
Product 91	: 88 - 91 CLOCKS AND WATCHES AND PARTS THEREOF
Product 92	: 88 - 91 MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES OF SUCH ARTICLES
Product 93	: 88 - 91 ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF
Product 94	: 88 - 91 FURNITURE; BEDDING, MATTRESSES, MATTRESS SUPPORTS, CUSHIONS AND SIMILAR STUFFED FURNISHINGS; LAMPS AND LIGHTING FITTINGS, NOT ELSEWHERE SPECIFIED OR INCLUDED; ILLUMINATED SIGNS, ILLUMINATED NAME-PLATES AND THE LIKE; PREFABRICATED BUILDINGS
Product 95	: 88 - 91 TOYS, GAMES AND SPORTS REQUISITES; PARTS AND ACCESSORIES THEREOF
Product 96	: 88 - 91 MISCELLANEOUS MANUFACTURED ARTICLES
Product 97	: 88 - 91 WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES
Product 98	: 88 - 91 COMPONENT PARTS OF COMPLETE INDUSTRIAL PLANT
Product 99	: 88 - 91 OTHER PRODUCTS