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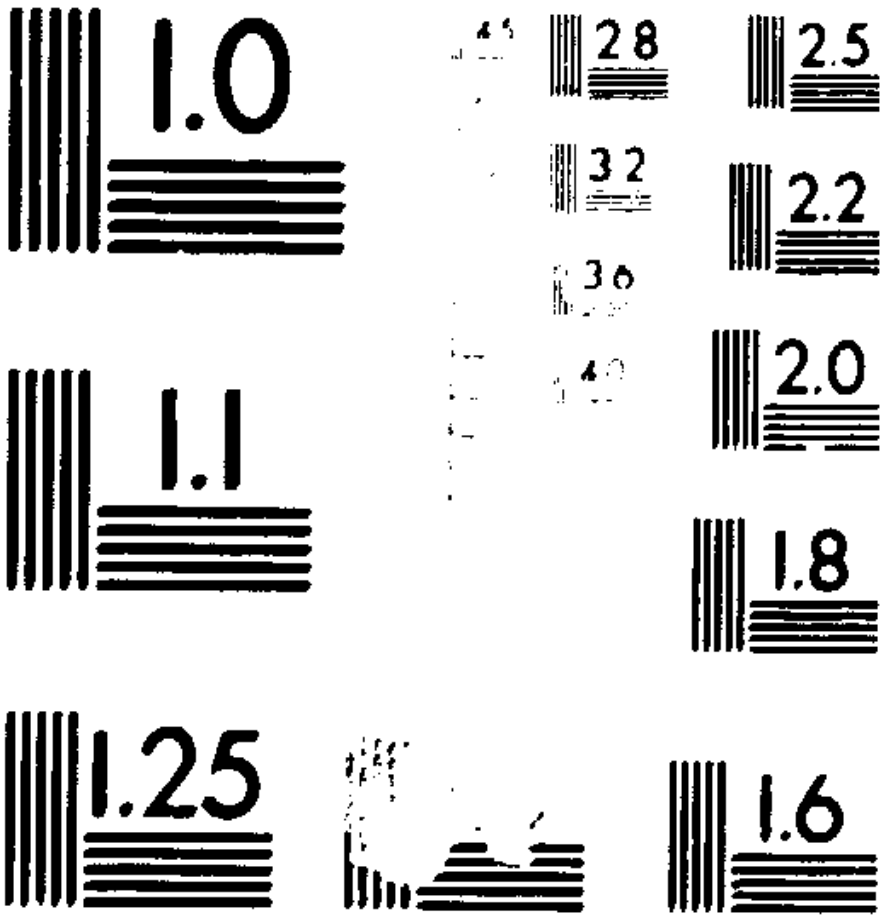

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INTERNATIONAL TRADE IN STEEL TUBES

Sectoral Working Paper Series

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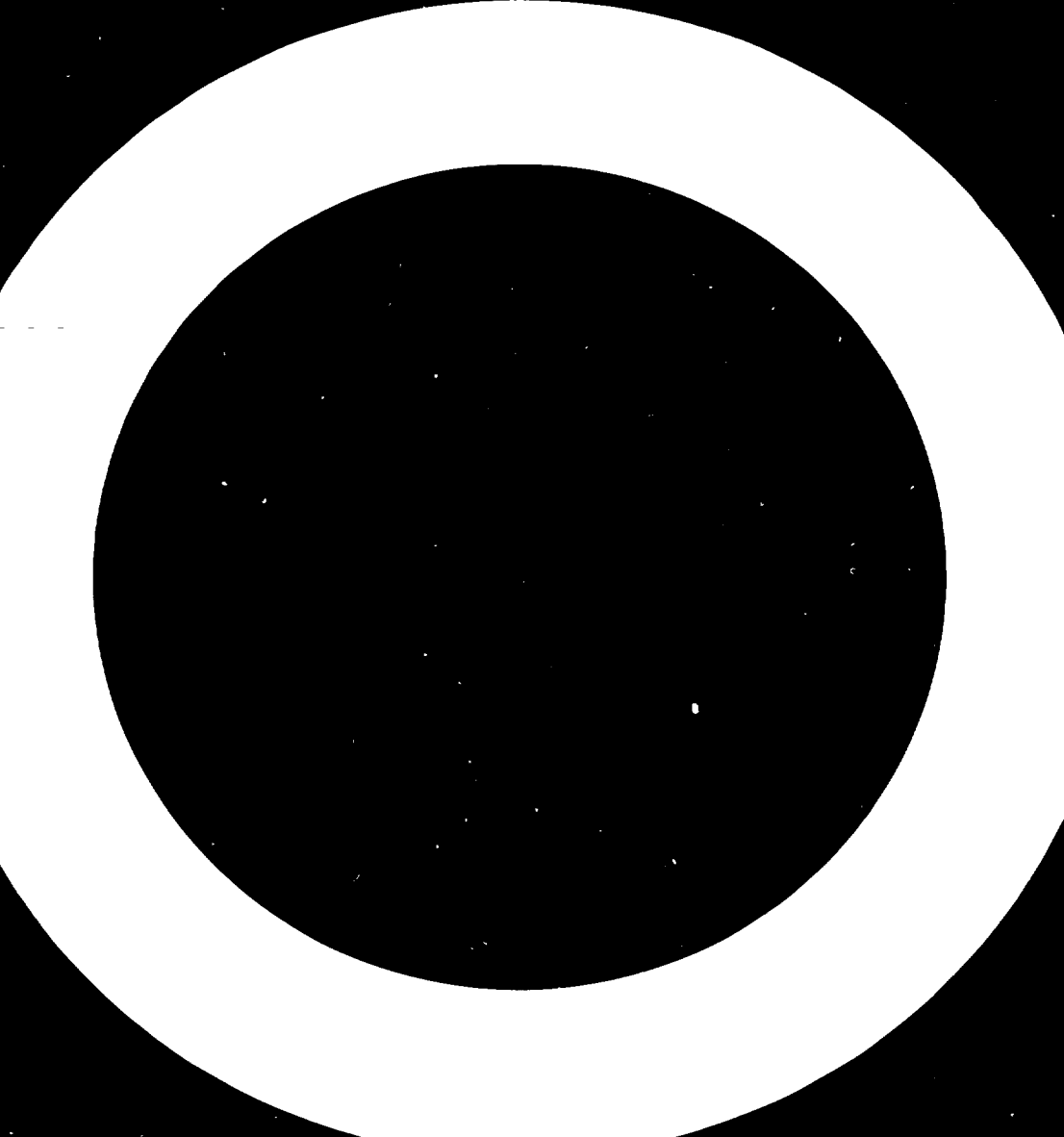
SECTORAL WORKING PAPERS

In the course of the work on major sectoral studies carried out by the UNIDO Division for Industrial Studies, several working papers are produced by the secretariat and by outside experts. Selected papers that are believed to be of interest to a wider audience are presented in the Sectoral Working Papers series. These papers are more exploratory and tentative than the sectoral studies. They are therefore subject to revision and modification before being incorporated into the sectoral studies.

Preface

This paper has been prepared by UNIDO'S Sectoral Studies Branch at the invitation of the United Nations Economic Commission for Europe (ECE) for presentation at the latter's Seminar on Steel Tubes and their Raw Material Quality Requirements, to be held in Helsinki from 13 to 17 May 1985.

The document is based primarily on United Nations statistics. It represents, in part, an attempt to see how far readily available statistical data permit meaningful conclusions or changes in international trade flows.



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References to dollars ($) are to United States dollars, unless otherwise stated.

A comma (,) is used to distinguish thousands and millions.

A full stop (.) is used to indicate decimals.

A slash between dates (e.g., 1980/81) indicates a crop year, financial year or academic year.

Use of a hyphen between dates (e.g., 1960-1965) indicates the full period involved, including the beginning and end years.

Metric tons have been used throughout.

The following forms have been used in tables:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (-) indicates that the amount is nil or negligible.

A blank indicates that the item is not applicable.

Totals may not add up precisely because of rounding.

1. INTRODUCTION

This paper is based primarily on official statistics from the United Nations Statistical Office (UNSO). These data are subject to variation in reporting by member countries, to changing definitions and units of measurement within countries and to other both systematic and random errors. Thus, this paper to some extent represents an attempt to utilize readily available statistics on a global level to see whether meaningful trends and other results can be discerned from them.

The paper considers two product categories, defined in the Standard International Trade Classification System (SITC), Revision 1, as

SITC (Rev.1) 678.2 Tubes and pipes of iron (other than of cast iron) or steel, seamless (excluding clinched); and

SITC (Rev.1) 678.3 Tubes and pipes of iron (other than of cast iron) or steel, welded clinched etc.

In this paper the terms tubes, tubular goods and pipes all refer to the collective tubes and pipes, unless otherwise stated.

Steel pipes and tubes constitute a major input to the construction, mining and chemical sectors as well as to certain other manufacturing industries. Other sectors, such as agriculture and transport are also dependent on pipes and tubes for their efficient functioning.

The world's major producer regions of steel tubes and pipes, ranked in order of production, are the centrally planned economies of Europe (CPEE), Western Europe, Japan and North America. The CPEE produce nearly twice as much as Western Europe; Japan alone produces almost as much again as Western Europe, and in the past few years more than twice that of North America. From 1979 to 1983, the production declined by some 20 per cent in both Western Europe and Japan, and by more than half in North America. In the CPEE, the production has held steady at around 23 million metric tons per year (see table 1.1).

Table 1.1 Production of steel tubes, 1979-1983
(1,000 metric tons, index 1979=100)

Region	1979	1980	1981	1982	1983
North America	8,906	9,791	12,654	5,786	3,937
	100	110	142	65	44
Western Europe	13,636	13,861	15,366	14,120	11,180
	100	102	113	104	82
Japan	12,046	12,280	13,097	12,189	9,737
	100	102	109	101	81
CPEE	23,575	23,529	23,535	23,105	in-
	100	100	100	98	complete
Latin America[a/]	849	908	1,010	984	...
	100	107	119	116	...

a/ refers to seamless tubes only

Source: Annual Bulletin of Steel Statistics for Europe, Vol. XI, 1983, United Nations, New York 1984, Table 1 and 1983 Anuario Estadistico de la Siderurgia y Mineria del Hierro de America Latina, Instituto Latinoamericano del Fierro y del Acero, 1984

In 1980 the value of the total production of steel pipes and tubes[1/] amounted to approximately one per cent of total GDP in manufacturing in Western Europe and North America and almost three per cent in Japan (see table 1.2). They accounted for 1.4 and 0.8 per cent of total exports of manufacturing goods in Western Europe and North America, respectively; in Japan, the proportion rose to 5.6 per cent. In the developing countries pipes and tubes do not yet occupy quite such a prominent role. For example, in Latin America the value of the production of seamless tubes and pipes came to only 0.3 per cent of total manufacturing. However, this share would be considerably higher if welded tubes were included in the available statistics, as evidenced by Latin America's share of all steel pipes in manufactured goods which was 1.5 per cent. This figure is similar to that in the developed market economies, except Japan.

1/ Evaluated at $US 683/metric ton, the approximate average cost of steel line pipe (gas) in 1980 according to the OGJ Morgan Gas Pipeline Cost Index.

Table 1.2 Share of steel tubes in total manufacturing and total exports, 1980 $US million and per cent

Region	Value of production			Value of exports		
	Manufacturing[a]	Steel tubes[b]	per cent	Manufacturing	Steel tubes	per cent
North America	653,018	6,668	1.1	111,768	943	0.8
Western Europe	978,570	9,469	1.0	393,013	5,552	1.4
Japan	302,925	8,389	2.8	76,124	4,292	5.6
Latin America[c]	188,185	620	0.3	16,219	242	1.5

a/ refers to GDP in total manufacturing.

b/ valued at $US 683 per metric ton.

c/ seamless tubes only.

Source: Table 1.1 and United Nations Commodity Trade Statistics.

2. CHANGING TRADE FLOWS

In Western Europe and Japan, a little more than one half of the domestic production of steel tubes and pipes is exported (see table 2.1). North America exports approximately 10 per cent of its production whereas the CPEE's share in world trade amounts to only one to two per cent of their total production (see table 2.1). The producing countries in Latin America have a relatively high export rate, selling about one quarter of their production of seamless tubes to other countries.

Table 2.1 Proportion of total steel tube and pipe production exported, based on physical quantities, 1979-1982

Region	1979	1980	1981	1982
North America	0.12	0.08	0.07	0.11
Western Europe	0.51	0.48	0.55	0.55
Japan	0.50	0.51	0.41	0.55
CPEE	0.01	0.02	0.02	0.01
Latin America[a/]	0.20	0.18	0.24	0.25

a/ Seamless tubes only.

2.1 Seamless tubes

Certain dramatic shifts in the relative as well as the absolute trade flows have taken place from the mid-1960s to the early 1980s. While total volume of seamless tubes traded internationally nearly quadrupled, it was Japan, Southern Europe and East Asia's new manufacturing nations that increased their trade most in relative terms (see table 2.2).[2/] Yet, the

2/ Tropical Africa, of course, increased its trade the most in relative terms but in absolute terms its exports are still negligible in terms of world markets. Furthermore, most if not indeed all of this is either re-export of imported seamless tubes and pipes as African countries lack the production facilities necessary to produce such goods, or is the result of large diameter iron pipe being inappropriately classified under the same SITC code as seamless steel tubes.

Table 2.2 Regional Exports of Seamless Tubes to the World, 1965-1982
Quantity Levels and Quantity Indices

Exporting Region	Thousand Metric Tonnes		Quantity Index 1965 = 100																
	1965	1982	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
DEVELOPED																			
North Amer	214,745	357,607	114	94	129	140	141	132	128	198	313	388	187	171	225	253	200	238	167
Europe N	1,396,969	3,569,438	93	108	108	119	128	125	133	158	183	187	169	180	212	205	188	284	256
Europe S	23,643	273,810	141	148	145	132	193	242	311	415	395	345	481	411	784	843	1134	1105	1158
Japan	394,921	3,037,567	127	114	152	207	227	265	285	289	338	416	416	469	630	886	754	858	789
Others	2,008	5,520	559	756	223	124	172	128	85	153	453	389	1207	190	261	384	485	347	275
DEVELOPING																			
Latin Amer	67,997	244,492	97	96	130	161	97	152	132	100	173	81	67	114	282	253	243	359	360
North Afr	93	412	450	27	74	75	85	50	129	1344	1411	180	289	262	280	160	185	1362	443
Trop Afr	22	4,837	9718	3536	3655	92	4595	2502	321	3618	13449	13128	5474	12087	2637	5378	3201	10383	21149
West Asia	1,437	8,319	28	102	145	255	58	95	344	313	203	79	111	314	123	264	348	578	579
South Asia	6,266	17,021	23	25	131	83	82	119	108	45	83	40	114	283	155	64	98	89	272
E Asia(Mfg)	12,702	283,219	48	65	72	111	99	248	200	183	719	636	691	475	550	395	782	1009	2230
E & SE Asia	901	3,263	121	30	151	378	100	30	102	47	81	168	149	414	110	371	121	42	362
CPE																			
European	45,954	157,955	156	151	165	221	284	345	372	353	307	252	277	305	367	350	431	549	344
Asian	3	5,701	1893	11879	584	12042	11054	43737	17970	15076	29522	189894	5993	40090	17977	41858	49164	136938	154609
WORLD	2,167,666	7,970,132	104	108	121	141	150	159	167	191	232	251	222	224	302	307	313	405	368

latter two areas' trade is so small in tonnage that it is only Japan that significantly increased its share in the world export markets (see table 2.3). Northern Europe went from a dominating two thirds in 1965 to clearly less than one half of the market by 1982. North America also lost market share, going from a relatively small exporter to an almost insignificant one by 1982. Latin America, although it nearly quadrupled its export volume over the period, only retained its small share of the world export markets in seamless tubes and pipes. Southern Europe increased its share to match that of Latin America. The centrally planned economy countries' trade with the rest of the world is in relative terms on a modest level.

Table 2.3 World exports of seamless tubes by exporting region, in per cent, based on physical quantities, 1965-1982

Exporting Region	1965	1970	1975	1980	1981	1982
North America	10	9	15	6	6	4
Northern Europe	64	55	48	39	45	45
Southern Europe	1	1	1	4	3	3
Japan	18	28	30	44	39	38
CPEE	2	4	2	3	3	2
Latin America	3	2	1	2	3	3
East Asia manufacturing	-	-	1	1	1	4
Other	2	1	2	1	-	1
World	100	100	100	100	100	100
1,000 tons	2,168	3,251	5,440	6,792	8,778	7,970

Source: UNSO Commodity Trade Statistics (IS/SEC).

Looking at values of exports rather than tonnage as above, the picture changes only little (see table 2.4). A few developments are interesting, though. Western Europe still shows the greatest decline, although it never was quite so dominating in value terms as it was in quantities exported. Correspondingly, the biggest gains in both absolute values and relative share were achieved by Japan and, most significantly, it increased its share in value terms more than in quantity terms. Thus, Japan was fetching increasingly better prices for its tubular steel goods. Likewise, North America, although it lost market shares in value terms similar to that in quantities, it has always showed a better export record in dollars than in quantities. Latin America's and East Asia's new manufacturing nations' progress in value terms is very similar to that in quantities. Southern Europe, however, did not do quite as well value-wise as it did tonnage-wise.

Table 2.4 World exports of seamless tubes by exporting region, in per cent, based on export values, 1965-1982

Exporting Region	1965	1970	1975	1980	1981	1982
North America	15	12	18	9	9	7
Northern Europe	61	62	48	44	41	41
Southern Europe	1	1	1	3	2	2
Japan	18	20	29	40	43	43
CPEE	2	3	1	2	1	1
Latin America	2	1	1	2	3	3
East Asia manufacturing	-	-	1	1	1	3
Other	1	1	1	-	-	-
World	100	100	100	100	100	100
Current million US$	657	1,014	5,496	6,455	9,377	9,519

Source: UNSO Commodity Trade Statistics (IS/SEC).

Thus, it must have increased its share in world markets through aggressive pricing and/or concentration on the lower price end of the tubular products market. These seem to be the strategies adopted by the CPEE on the world market as well because their share in value terms is even less than in quantities.

2.2 Welded tubes

In 1982, the world trade in welded steel tubes and pipes was quantity-wise more than three times as large as it had been in 1965 (see table 2.5). This implies a real annual growth rate of 7.3 per cent, faster than most other industrial commodities over a sustained period of time, but still slower than seamless tubes which grew at an annual rate of 8 per cent.

As with seamless tubes, the expansion of exports was very unevenly spread among the world regions (see table 2.6). Again, Western Europe shows the biggest decline, retracting from a 60 per cent share of the total export market in the mid-1960s to the significantly lower but still commanding share of 40 per cent in the early 1980s, equal to that of Japan which has expanded its share from a third of the market. The only other remarkable development is that of East Asia's new manufacturing nations which expanded their share from barely one per cent in 1965 to around 10 per cent in the first years of the current decade. Although still well behind Japan and Western Europe, these countries as a group are now the third largest exporter of welded tubes and pipes in the world. Southern Europe also expanded its share in the export markets but it still remains small. All other regions, including the CPEE, maintain fairly constant and small proportions of the world market. South Asia which went from exporting only very small quantities in 1965 to more than 150,000 tons in the mid-1970s, again exported only negligible quantities by 1982. This can most likely be attributed to a very strong domestic demand in India.

In value terms, Western Europe lost similar shares in the export markets as it did in tonnage (see table 2.7). Japan, however, increased its market share in value terms somewhat more than it did quantity-wise, indicating a

Table 2 5 Regional Exports of Welded Tubes to the World, 1965-1982
Quantity Levels and Quantity Indices

Exporting Region	Thousand Metric Tonnes		Quantity Index 1965 = 100																
	1965	1982	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
DEVELOPED																			
North Amer	75,308	295,343	110	117	349	198	298	250	311	397	638	572	457	358	537	683	490	554	392
Europe N	1,821,207	3,576,724	93	108	133	148	155	124	130	184	184	182	195	195	218	217	208	240	221
Europe S	30,318	346,244	131	121	134	145	181	273	413	521	545	838	950	770	1444	1102	1295	1237	1142
Japan	877,852	3,671,250	94	97	149	157	190	228	186	196	271	311	387	380	382	380	368	223	418
Others	15,288	86,760	257	321	242	398	394	325	439	478	189	253	154	197	450	658	687	560	568
DEVELOPING																			
Latin Amer	9,374	189,683	561	718	657	548	521	881	807	498	751	612	1276	1360	1643	2081	2730	3009	1810
North Afr	21	1,759	792	2245	567	2336	903	1880	495	31015	12078	10640	5898	2875	613	2386	4214	5549	8112
Trop Afr	244	2,053	211	148	189	330	985	526	1031	1070	1154	328	1058	1389	778	494	832	538	841
West Asia	103	115,185	43	3191	3834	6459	4111	8838	14436	25883	38626	113219	56275	30138	15848	16355	14448	53041	111068
South Asia	5,374	3,028	741	771	1204	1782	1365	899	1180	1237	2012	1228	3057	2952	3138	1401	1139	305	56
E Asia(Mfg)	27,771	581,245	205	92	113	34	47	104	248	400	619	585	775	851	1071	1992	3062	4103	2093
E & SE Asia	322	7,639	259	1323	950	4429	3400	221	251	1098	3021	1499	1578	2793	1927	8125	2000	3138	2388
CPE																			
European	44,027	148,351	111	145	122	155	237	293	319	300	159	248	359	317	287	331	560	548	332
Asian	436	8,530	591	621	219	37	191	814	443	146	183	443	542	245	1858	3883	3839	2272	1954
WORLD	2,707,835	9,011,816	99	109	148	157	177	171	187	198	240	258	293	280	328	327	329	313	333

gradual shift towards higher-priced products and/or a slowly diminishing cost advantage reflected in pricing. But the nonetheless increasing share in quantities exported implies that Japan has not lost whatever comparative advantage it is enjoying.

Table 2.6 World exports of welded tubes by exporting region, in per cent, based on physical quantities, 1965-1982

Exporting Region	1965	1970	1975	1980	1981	1982
North America	3	5	6	4	5	3
Northern Europe	60	53	43	38	46	40
Southern Europe	1	1	4	4	4	4
Japan	32	35	39	36	23	41
Other developed	1	1	1	1	1	1
Latin America	-	1	1	3	3	2
CPEE	2	2	2	3	3	2
East Asia manufacturing	1	-	2	10	13	6
West Asia	-	-	2	-	1	1
South Asia	-	2	1	1	-	-
World	100	100	100	100	100	100
1,000 tons	2,708	4,779	6,924	8,918	8,482	9,012

Source: UNSO Commodity Trade Statistics (IS/SEC).

As with the quantities exported, Asia's new manufacturing nations have increased their market share in value terms as well, but not quite as much. This, then, implies that these nations once more have based their export drive on either very aggressive pricing and/or a concentration on the products at the lower end of the value scale. Latin America has evidently not followed a

similar strategy as its export market shares in both value and quantity terms have remained fairly constant - and much smaller than those of the Asian manufacturing countries.

The developments of the other regions in terms of value parallel those of the evolvement in quantities exported.

Table 2.7 World exports of seamless tubes by exporting region, in per cent, based on export values, 1965-1982

Exporting Region	1965	1970	1975	1980	1981	1982
North America	7	7	8	6	7	6
Northern Europe	60	58	45	44	37	41
Southern Europe	1	1	3	3	3	3
Japan	25	28	38	32	39	38
Other developed	1	1	1	2	1	1
Latin America	2	1	1	2	3	2
CPEE	2	2	1	2	2	1
East Asia manufacturing	1	-	2	7	8	6
West Asia	-	-	1	-	1	1
South Asia	1	1	1	1	-	-
Other	-	1	-	1	-	1
World	100	100	100	100	100	100
Current million $US	493	970	4,014	5,435	6,486	5,615

Source: UNSO Commodity Trade Statistics (IS/SEC).

3. REGIONAL TRADE FLOWS BY DESTINATION

This paper is based primarily upon United Nations trade data as reported by the exporters. However, when such data are lacking, or evidently are very incomplete, partner-reported data have been used to reconstruct the likely trade flow. Although this procedure works quite well for the world as a whole, it breaks down when both partners to a given flow are poor reporters as is sometimes the case with some of the CPEE and several of the developing countries. Thus, the estimates of trade between the CPEE and the developing countries on the one hand, and among the developing countries on the other, are certainly downward biased. These estimates are used to generate, in part, tables 3.1 and 3.2.

The regional trade flows by destination vary for some of the exporting regions quite considerably from one year to another. Therefore, this section is based upon the percentage distribution of trade averaged over 1980, 1981 and 1982 (see tables 3.1 and 3.2).

3.1 Seamless tubes

Most of the North American trade is intratrade. Yet, it also absorbs fully one quarter of the world's total exports of seamless tubes and it is the major market for several of the exporting regions. This situation has exacerbated the difficult state in which North America's, primarily the United States', steel industry finds itself and it has led to calls for protectionist measures. Among the world's developed regions, North America is the one that depends most on markets in the developing countries, notably Latin America.

The European intratrade is also large but Europe has also found major markets in North America and the centrally planned economies of Europe, primarily pipelines for huge gas delivery projects in the USSR. Japan likewise exports mainly to North America and the CPEE but has also found sizeable markets in Latin America and in the oil producing West Asian region.

Among the developing regions, it is primarily Latin America, South Asia and East Asia, both the new manufacturing countries and the other countries in this group, that have found markets outside their own geographical domains.

Table 3.1. Percentage distribution of regional trade in seamless tubes, by destination, average for 1980, 1981 and 1982

Exporting region	Receiving region (per cent)														
	North America	Northern Europe	Southern Europe	Japan	Other developed	Latin America	North Africa	Tropical Africa	West Asia	South Asia	East Asia manufacturing	Other East Asia	CPE Europe	CPE Asia	World
North America	37	5	1	1	1	29	3	5	11	-	4	1	-	1	100
Northern Europe	19	35	3	-	1	5	6	4	9	1	1	1	13	2	100
Southern Europe	32	13	1	-	2	13	5	1	11	1	-	1	19	1	100
Japan	29	3	1	-	3	13	3	2	10	3	5	5	16	7	100
Other developed	8	7	2	-	6	4	-	15	1	3	9	43	-	2	100
Latin America	21	-	-	-	2	43	6	-	9	-	1	1	5	12	100
Tropical Africa	3	19	3	-	-	-	-	64	1	-	10	-	-	-	100
North Africa	3	66	3	-	-	-	11	1	15	..	-	-	1	-	100
West Asia	1	2	-	-	-	-	4	-	91	-	2	-	-	-	100
South Asia	-	1	-	-	-	-	1	14	77	3	1	3	-	-	100
East Asia manufacturing	13	2	-	2	6	2	3	2	16	10	14	28	-	2	100
Other East Asia	-	3	-	6	4	-	-	-	2	-	77	8	-	-	100
CPE Europe	23	27	14	-	2	4	1	2	6	5	-	1	15	-	100
CPE Asia	1	1	-	-	-	1	3	10	49	2	30	3	-	-	100
World	26	17	2	-	2	11	4	3	10	2	3	3	13	4	100

Source: Computed from UNSO Commodity Trade Statistics, as reported by the exporters (IS/SEC).

Table 3.2. Percentage distribution of regional trade in welded tubes, by destination, average for 1980, 1981 and 1982

Exporting region	Receiving region (per cent)														
	North America	Northern Europe	Southern Europe	Japan	Other developed	Latin America	North Africa	Tropical Africa	West Asia	South Asia	East Asia manufacturing	Other East Asia	CPE Europe	CPE Asia	World
North America	46	6	1	1	2	24	2	2	9	-	3	2	-	-	100
Northern Europe	8	53	2	-	1	6	6	3	7	1	-	-	12	1	100
Southern Europe	29	19	1	-	1	3	13	1	17	1	1	-	11	3	100
Japan	33	4	-	-	4	6	2	1	14	2	7	5	18	4	100
Other developed	47	4	1	-	3	-	-	2	2	1	37	3	-	-	100
Latin America	61	-	-	-	-	14	13	1	3	-	-	-	-	8	100
Tropical Africa	-	21	1	-	-	-	-	43	5	-	30	-	-	-	100
North Africa	7	14	-	-	-	-	38	4	37	-	-	-	-	-	100
West Asia	2	2	-	-	-	-	11	1	84	-	-	-	-	-	100
South Asia	4	8	-	-	-	-	1	3	53	21	5	3	2	-	100
East Asia manufacturing	68	1	-	2	4	-	-	-	8	3	6	4	1	3	100
Other East Asia	-	1	-	-	2	-	-	-	-	1	93	3	-	-	100
CPE Europe	4	35	4	-	-	-	7	-	10	-	-	-	40	-	100
CPE Asia	1	-	-	-	-	4	1	2	52	5	34	1	-	-	100
World	26	25	1	-	2	7	4	2	11	1	4	2	13	2	100

Source: Computed from UNSO Commodity Trade Statistics, as reported by the exporters (IS/SEC).

The statistical fact that fully two thirds of North Africa's reported exports of seamless steel tubes go to Northern Europe defies immediate explanation, even though the absolute quantities are small.3/

Perhaps surprisingly, the CPEE's largest export markets are in North America and Europe. However, the large mutual trade between especially Western Europe and the CPEE is explained by both international division of labour and bilateral trade agreements.

For the world as a whole, North America constitutes by far the largest market, followed by Northern Europe and the CPEE, and then West Asia. Notably, Japan imports less than 0.5 per cent of the world's total exports of seamless steel tubes. This is in deep contrast to the other major steel tube producers and exporters who also import fair amounts of these goods.

3.2 Welded tubes

As far as the developed regions are concerned, the relative geographical distribution of the export markets for welded tubes is similar to that for seamless steel tubes. It is perhaps worth noting, however, that the category other developed sends nearly one half of all their exports of welded tubes to North America whereas that proportion was less than 10 per cent in the case of seamless tubes.

Latin America and East Asia's new manufacturing nations export approximately two thirds of their welded tubes to North America which constitutes their primary export market. Apart from that, the exports of welded tubes from developing countries go primarily to countries within the same economic/geographic grouping, except South Asia and the centrally planned economies of Asia which sell the majority of their exports to West Asia.

3/ Op. cit.

For the CPEE, the internal markets are far more important in the case of welded tubes than they are in seamless tubes. Northern Europe, however, retains its importance as an outlet for CPEE exports of these tubes and pipes.

Again on the world wide scale, the picture is very similar to that of seamless tubes: the largest export markets are those of North America and Northern Europe, the CPEE and West Asia. And once more, Japan buys less than 0.5 per cent of the world's exports of welded steel tubes. This is even more astonishing than in the case of seamless tubes, since the production of welded tubes requires neither high technology nor large scale and is thus suitable for many of the developing countries with which Japan has major surpluses in its trade balance. Japan apparently now produces the full range of all kinds of steel pipes. As noted, this is in mark . contrast to the other major producers who despite their own sizable production, still find economic division of labour or other reasons for also importing tubes and pipes. It would seem economically efficient, and therefore beneficial from a general welfare point of view, for Japan also to open up its own markets to exports from other countries.

4. INTERNATIONAL PRICE DEVELOPMENTS

Figure 4.1 shows the development of export prices[4/] for steel tubes and pipes for four different groups of exporters:

- North America: the United States and Canada
- Major Western European: Federal Republic of Germany, United Kingdom, France and Sweden
- Japan
- Newly industrialized countries: Republic of Korea, Thailand, Philippines, Malaysia, Indonesia, Brazil and Mexico.

The international prices remained stable and close to each other up to 1973, reflecting a mature industry on competitive markets. But in 1974 and 1975, the prices rose dramatically in apparent response to the 1973 major adjustment in international oil prices. Although a new level was found in 1975, the prices for the different exporters were no longer quite so close as they had been. This disparity in prices also began to show in the changing market shares.

After 1980, the prices began to show significant differences among the major exporter groups. While those of Japan and North America rose substantially, the exporters in Western Europe and the newly industrialized countries received either lower or about the same prices for their exports as they had in 1980. Whether this was due to a deliberate pricing strategy or to a creeping devaluation of their currencies vis-à-vis the dollar is not immediately evident from the statistics.

The rising prices for the North American exporters clearly reflect the strengthening value of the dollar. Japan, who imports nearly all of its energy, also felt the effect of the rising cost of oil in dollar terms, particularly in steel which is an energy intensive industry. Evidently, this

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4/ The figure depicts Fisher-type chained price indices based upon unit export prices derived from UNSO Commodity Trade Statistics; computations by UNIDO Secretariat, IS/SEC.

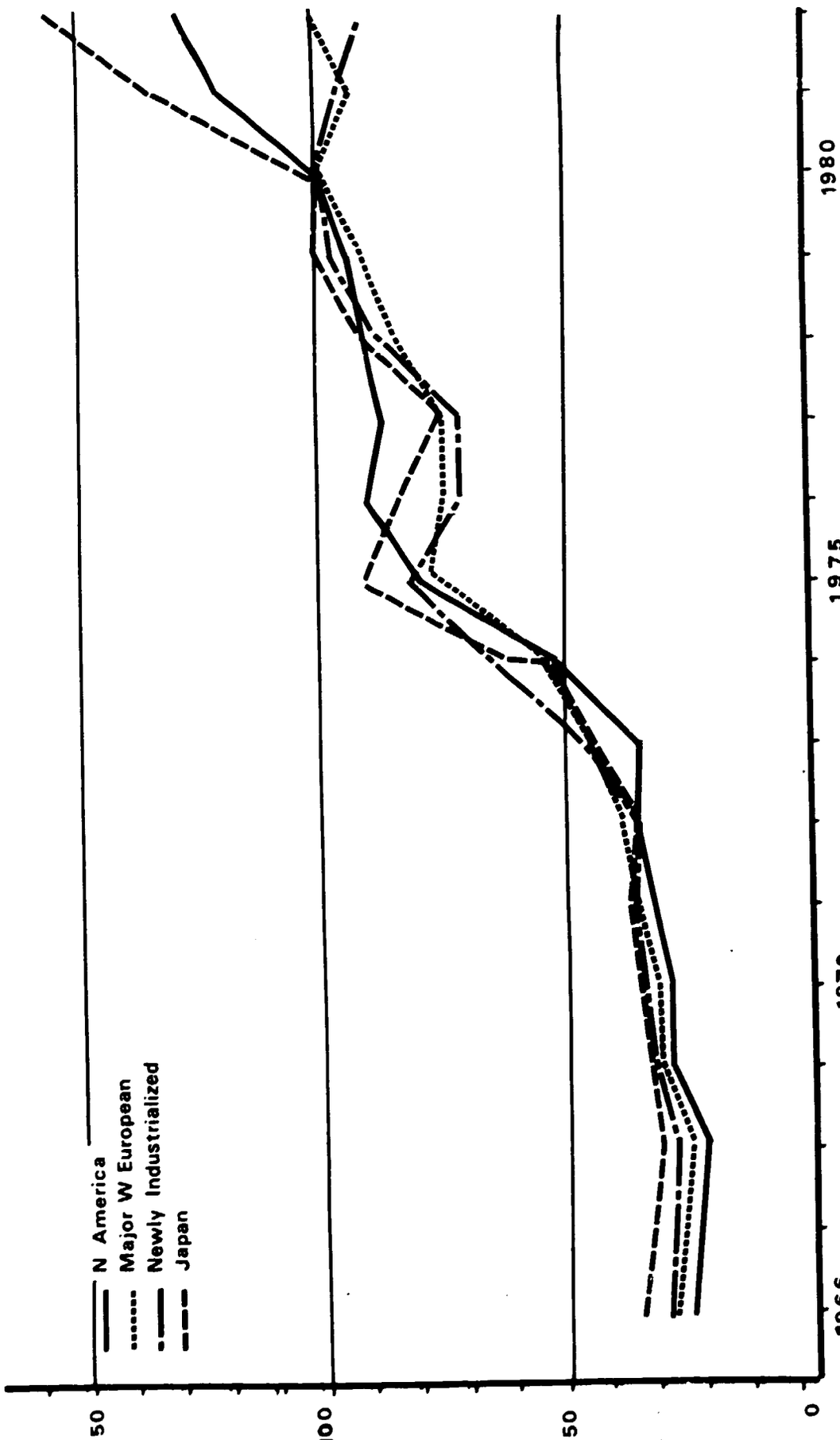

Fig 4.1 Export Unit Value Indices, 1980=100; UNIDO/ IS/SEC. Dec 1984

increased production cost was first passed on to buyers in the form of sharply rising export prices for Japan's steel tubes and pipes. However, the penalty of increased prices started showing in declining market shares in terms of tonnage exported by both North America and Japan (see tables 2.2 and 2.5). Subsequently, their export prices have been pared to meet the competition on the world markets.5/

5/ As evidenced by direct export price indices published by UNCTAD in its Handbook of International Trade and Development Statistics, 1984 Supplement, table 2.8.

5. THE SHORT TERM OUTLOOK

The recent world recession, the reduced demand for oil and therefore declining production and investment activities in the entire energy sector, and to some extent a drawing down of excess stocks have all contributed to the reduction in the world production of steel tubes and pipes and trade therein. Although the recovery from the recession began already some time ago in the United States and may already have reached its peak in some countries, the progress has been geographically very uneven. This is clearly reflected in the resultant pattern of international trade in steel products. Exporting countries have taken advantage of the strength of the American market and their own relatively cheap prices (in dollar terms) to sharply increase their exports to North America. For example, the European Economic Community's tube mills captured more than 14 per cent of the United States' market in 1984[6/] and towards the end of the year, foreign Oil Country Tubular Goods (OCTG) deliveries accounted for as much as 65 per cent of the United States market.[7/]

Predictably, this has led to charges of unfair trade practices and demands for protective measures. The protective measures have, however, led to the emergence of a great number of different co-operation agreements between American and foreign companies: joint ventures, supplier agreements and technology licenses to capitalize on the current world situation and/or to circumvent eventual trade barriers. The resistance of American buyers to the prospect of a more closed domestic steel market with a certainty of higher prices has also moderated the rise of protectionism.

According to some analysists the embryonic "tide of protectionism" may be further tempered by higher United States import prices - elevated by a gradually weakening dollar - and a predicted 10 per cent slow-down in capital

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6/ Metal Bulletin, May 5, 1984, page 7.

7/ Metal Producing, December 1984, page 43.

spending.[8/] Still, the United States market for steel tubes and pipes is likely to remain in 1985 at least as good as it was in 1984. The two main end-markets, the construction sector and the oil and gas industry, are both predicted to be buying more than they did in either 1983 or 1984, even by the most pessimistic forecast.[9/] The North American market absorbing at least one quarter of the world's exports of steel tubes and pipes, this would seem to indicate reasonably good prospects for the rest of the world's exporters of these goods, especially for the leading Japanese and Western European mills that have established a reputation for supplying very high quality products at competitive prices.

The Western European makers of steel tubes and pipes will continue to be major suppliers on the world market, at least partially because of subsidized production. However, their market shares seem destined to decline in most markets where they face stiff competition. Deliveries to the CPEE will continue to depend as much on bilateral trade agreements as on competitive price and quality.

Steel making is among Japan's "sunset" industries. Nonetheless, Japan will continue to be the world's leading exporter of steel tubes, in particular seamless tubes and pipes, for quite some years to come. But undoubtedly the Japanese manufacturers will gradually have to give up some of their export markets and may even yield to open up their own domestic markets to foreign suppliers. This will first come about for welded tubes and other lower-end tubular steel goods.

The rapidly industrializing countries, especially those in East and Southeast Asia, are likely to dramatically increase their shares in the world's export markets, in particular in other developing countries. A comparative cost advantage and relatively fast growing own consumption of steel are among the major factors contributing to this development. Global

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8/ Ibid., p. 39.

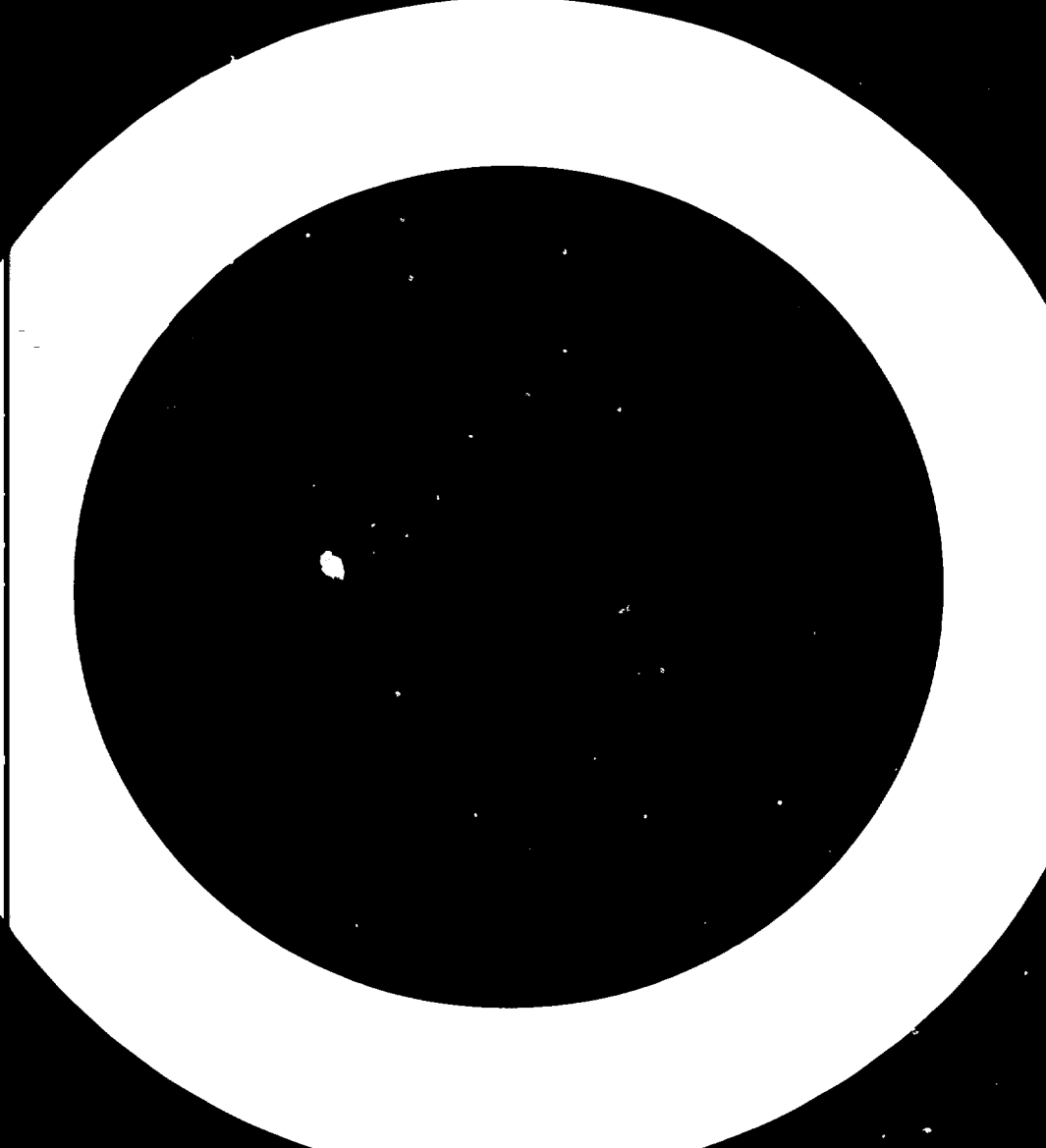
9/ Op. cit., p. 40.

matchmaking between independent manufacturers to form various loose international business compacts could further the newly industrialized countries' position as manufacturers of tubular steel goods. In pursuing global markets, such alliances represent one way of reducing costs, sharing of risks, and overcoming cultural and trade barriers. Those with good and cheap products seek partners with solid sales and distribution networks.

5. SUMMARY

Northern Europe has gradually lost its position as the largest exporting region of tubular steel goods. The void has been filled by Japan on the one hand but lately, to an increasing degree, also by the world's new rapidly industrializing countries. Due to its energy intensity and perhaps also due to its environmental consequences, steel making in Japan is losing its relative cost advantage vis-à-vis other producers, especially the newly industrializing ones. This is already apparent in increasing prices for Japanese tubular steel goods and will lead to declining world market shares.

The preceding analysis of UNSO trade statistics shows that despite the many shortcomings of such data, trends and shifts in patterns can be discerned at least at an aggregate (regional) level. Moreover, the combination of quantity, value and price data allows economically meaningful conclusions to be made, albeit perhaps only tentative ones that need testing against more refined data.



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International trade in steel tubes

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