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The Restrictiveness of the Multi-Fibre Arrangement on Eastern European Trade

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Eastern European textile and clothing exports have faced restrictive MFA quotas in the European Community and excessive tariffs in the United States. Eastern European exports in this sector seem to be too diversified and capital-intensive. This situation should improve with preferential treatment in OECD markets or the relaxation of MFA quotas.

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This paper — a product of the International Trade Division, International Economics Department — is part of a larger effort in the department to assess the impact of the Multi-Fibre Arrangement on developing countries and to evaluate the effects of changes in Eastern Europe. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Grace Ilogon, room S7-033, extension 33732 (33 pages). February 1992.

Erzan and Holmes found that the Multi-Fibre Arrangement (MFA) restrained the trade of Eastern European countries as much as it restrained the trade of other suppliers, such as the East Asians. In the United States, the MFA quotas were rarely an effective restraint; there, the high non-MFN (most-favored nation) tariffs were considerably more important barriers than the MFA quotas.

Historically, Eastern Europe has not been favorably treated in terms of quota growth in the EC and U.S. markets — often quite the contrary. But EC and U.S. treatment of these countries has already changed since their reform and can be expected to become even more favorable.

Eastern Europe's exports of textiles and clothing have tended to be more capital-intensive and less specialized than those of other major suppliers, including Asia's newly industrialized economies. Erzan and Holmes argue that Eastern Europe's expansion of relatively labor-intensive products has probably been inhibited by quotas and by the weak adjustment mechanisms inherent in a centrally planned economic system.

If so, given market reforms in Eastern Europe, exports of labor-intensive textiles and clothing should expand more than proportionately and the degree of specialization should increase if the MFA is abolished or its grip on Eastern Europe's exports is relaxed in the EC.

Putting aside questions of the composition of exports, Erzan and Holmes expect considerable expansion of textile and clothing exports because they make up a large part of labor-intensive manufactures, where Eastern Europe's comparative advantage lies in the near future.

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I. INTRODUCTION

To what extent have Multi-Fibre Arrangement (MFA) quotas restricted East European exports of textiles and clothing to the major industrial country markets?

This question is interesting on its own merit. And it is of relevance not only to East European (EE) exporters but also to other developing country suppliers of textiles and clothing. The Uruguay Round of Multilateral Trade Negotiations (MTNs) under the auspices of the GATT will hopefully produce an agreement on a phaseout of the MFA (see Erzan and Holmes, 1990).[1] EE countries are in the process of establishing special relations with the EC, the single largest market for non-OECD exports of textiles and clothing[2]. Any trade agreement between the EC and the EE countries would have to cover the textiles sector, and most likely provide some type of preferential treatment. This could squeeze the other MFA suppliers and erode any advantages the Mediterranean associates of the EC, notably Turkey, might currently enjoy.[3]

The second question addressed in this paper is whether the composition of EE exports of textiles and clothing to the industrial countries has any predictive value for future export patterns. This is a very tentative analysis since, in addition to the distortions of the MFA, the dismantling of COMECON (which removed the incentives/pressures to trade with the USSR) and the transition to a more market-oriented economy can considerably change the pattern of competitiveness as revealed by past performance. This is not an issue which

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[1] While the Uruguay Round negotiations are still going on, MFA IV, which expired on 31 July 1991, has been extended 17 months to the end of 1992. In December 1991, a preliminary agreement was reached on a 10-year phaseout of the MFA.

[2] In December 1991, Czechoslovakia, Hungary and Poland were finalizing Association Agreements with the EC.

[3] Formally, Turkey is not subject to the MFA regime in the EC. Trade in textiles and clothing is nevertheless subject to MFA-like quotas governed by an arrangement between the EC and the Turkish Association of Textile Exporters. Presumably, this arrangement is somewhat more lenient on Turkish exports than the MFA would be.

can be addressed directly owing to the lack of detailed data on this trade.[4]

We concentrate on five EE countries, Bulgaria, Czech and Slovak Federal Republic (for brevity, Czechoslovakia), Hungary, Poland and Romania -- "East European Five" -- and as markets, the EC and the US, which account for about 80 percent of all OECD imports of textiles and clothing from non-OECD (plus Turkey) sources.[5] As comparators we use the "East Asian Four" composed of China plus Hong Kong and Taiwan (China), and the Republic of Korea (for brevity, Korea), representing the most dynamic exporters, and "all MFA suppliers".[6] For data, we mainly rely on the World Bank computer files on the MFA, and the COMTRADE Data Base from the United Nations Statistical Office (UNSO).[7]

In Section II of the paper, we analyze the impact of the MFA on the East European Five, relative to our comparator groups, using the indicators of restrictiveness developed in Erzan, Goto and Holmes (1990). In Section III, we briefly outline the factor proportions argument for the pattern of international specialization in trade. Against this background, we analyze the composition of the EE countries' textile and clothing exports to the industrial markets, in a comparison with other MFA suppliers, as a guide to future EE export patterns. A concluding section sums up our findings, considers some predictions, and discusses avenues for further research.

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[4] Similarly, we cannot compute Balassa (1965) type indices of revealed comparative advantage.

[5] During the period under study, 1985 to 1989, all the EE countries except Bulgaria were subject to MFA quotas in both the EC and the US. Although Bulgaria was never formally a party to the MFA, it faced similar quotas in both markets. As the bilateral MFA agreements expire, most will likely be renewed under the extended MFA IV. There may be exceptions, however. For instance, the US MFA agreement with Romania has not been renewed since it expired in December 1989.

[6] In the US MFA, Japan appears as an exporter in addition to the developing countries. Excluding Japan, as well as Guam and the Northern Marianas due to data limitations, there are 44 developing country suppliers which are either subject to the MFA quotas or similar restrictions. We call this group "All MFA Suppliers" which includes the East European Four and the East Asian Four. In the EC market, this group previously consisted of 27 countries, but declined to 22 under MFA IV. See Raffaelli (1990) for the developed and developing country signatories of the MFA, and the bilateral restraint agreements concluded.

[7] See Erzan, Goto, and Holmes (1990), Appendix A on data for a description of the World Bank computer files on the MFA.

II. THE IMPACT OF THE MFA ON EASTERN EUROPE'S TEXTILES AND CLOTHING TRADE

The main instruments of the MFA are bilateral quotas imposed on narrowly defined product groups which are market specific. In the EC, the five EE countries combined faced 71 quotas in 1985 (see Table 1). This figure declined to 54 in 1989. The number of such constraints is comparable to the number of quotas on the East Asian Four -- 71 in 1985 and 61 in 1989. Of the quotas on the EE countries, 44 had utilization rates above 90 percent in 1985 and 37 in 1989 -- a utilization rate which is practically binding.[8] For the Asian Four, the corresponding figures were 46 and 39. The tight coverage of the EC's MFA on EE is particularly interesting, considering the fact that imports from the latter constituted only six percent of the EC's total imports of textiles and clothing, excluding intra-EC trade (see Table 2A, column I). The share for the East Asian Four was 27 percent -- more than four times as large.

The picture is quite different in the US market. Although over 100 quotas were applied on the five EE countries in 1985, and 145 in 1989 (mainly on Poland and Romania), very few of them were highly utilized.[9] This is in sharp contrast to the East Asian Four which had about 90 percent of all quotas filled. In this market, EE accounted for less than one percent of imports, unlike the

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[8] See the following section on the "measures of restrictiveness", particularly footnote 11.

[9] In 1988 both Poland and Romania saw dramatic increases in the number of categories facing quotas. These increases were due to the implementation of the 200 series (cotton and man-made fiber blends) and the 800 series (non-cotton vegetable fibers and silk) of MFA categories.

The 200 and 800 series of categories were established when the MFA was renegotiated in 1986, but were not immediately applied to most suppliers. These series were phased in slowly, to allow time for the separate bilateral agreements to be amended or renewed. The 800 series was first implemented in 1986, and then only against the East Asian Four. The 200 series was first implemented in 1987, but then only against Brazil. In the years that followed, these series were applied to most other suppliers as well.

The radical increase in the number of categories under quota for Poland and Romania was due to the fact that these countries were subject to Minimum Consultation Levels (MCLs). The presence of MCLs meant that all new categories were added automatically. As the East Asians were not subject to MCLs, fewer of the new categories came under bilateral quotas.

East Asian Four which had half of the import market.

A first impression is that the coverage of the MFA on EE is extensive despite EE's meager import market share. In the EC, this grip appears to be quite restrictive as well.

While all five EE countries enjoyed most favored nation (MFN) status in the EC, Bulgaria, Czechoslovakia and Poland did not have this privilege in the US during the period studied.[10] The US MFN tarifff rates on textiles and clothing are about 20 to 35 percent whereas the non-MFN rates range from 50 to 100 percent and above.[11] The high tariffs faced by some of the EE countries in the US were therefore more effective barriers than the quotas which were mostly redundant. The sharp decline in Romania's exports to the US after it lost MFN status in 1988 is witness to this fact. Also, the suspension of Poland's MFN status from 1981 to 1989 might have had a major negative impact.[12]

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[10] In the US, Czechoslovakia was granted MFN status in November 1990 for the first time since World War II. Poland regained MFN status in November 1989 after it had been lost in January 1981 following the imposition of martial law. Hungary enjoyed MFN status throughout the period under study; so did Romania until it was revoked in August 1988. Bulgaria is about to receive MFN treatment; the proposal is pending in the US Congress.

[11] In the EC, MFN tariff rates on textile products go up to 17 percent. It should also be noted that in both the EC and US markets, the Generalized System of Preferences (GSP) schemes exclude most textiles and clothing.

[12] However, we could not document this impact as data prior to 1981 and after 1989 were not available.

Table 1: Number of Product Categories[a] Facing Quotas in the EC and the US, 1985-1989
(in parentheses, number of binding[b] quotas)

	EUROPEAN COMMUNITY MARKET					UNITED STATES MARKET				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
EAST EUROPEAN FIVE[c]	71 (44)	71 (47)	54 (41)	54 (35)	54 (37)	104 (4)	105 (15)	107 (16)	144 (7)	145 (6)
Bulgaria	25 (7)	25 (8)	11 (4)	11 (2)	11 (1)	0 (0)	1 (0)	1 (0)	1 (0)	n.a.[e] (n.a.)
Czechoslovakia	54 (36)	55 (37)	41 (35)	40 (30)	40 (26)	0 (0)	2 (1)	2 (0)	2 (1)	n.a.[e] (n.a.)
Hungary	37 (22)	37 (22)	29 (19)	29 (18)	29 (17)	7 (2)	7 (2)	10 (4)	16 (1)	17 (3)
Poland	37 (18)	37 (21)	31 (18)	31 (20)	31 (20)	104 (0)	105 (1)	104 (2)	123 (2)	139 (5)
Romania	42 (24)	42 (25)	35 (21)	35 (17)	35 (20)	96 (2)	96 (13)	94 (15)	138 (3)	138 (0)
EAST ASIAN FOUR[c]	71 (46)	71 (56)	67 (50)	68 (43)	61 (39)	82 (72)	90 (79)	92 (77)	109 (74)	113 (89)
China	50 (26)	50 (30)	50 (31)	51 (30)	42 (24)	56 (25)	68 (65)	76 (54)	87 (45)	88 (57)
Hong Kong,China	46 (19)	47 (27)	31 (23)	31 (21)	31 (21)	57 (37)	66 (49)	66 (42)	69 (41)	73 (40)
Korea, Rep. of	52 (26)	54 (37)	46 (35)	46 (27)	46 (21)	71 (50)	82 (57)	84 (48)	94 (36)	93 (50)
Taiwan (China)	50 (26)	50 (32)	41 (31)	41 (26)	42 (21)	79 (52)	81 (50)	81 (36)	93 (32)	92 (36)
ALL MFA EXPORTERS[c,d]	87 (62)	87 (68)	79 (60)	80 (53)	74 (52)	109 (76)	118 (84)	145 (96)	147 (91)	160 (99)

Source: The World Bank computer files on the MFA.

Notes:
a The MFA product categories are market specific. The table excludes subcategories, group limits and aggregate limits.
b A bound category is defined as one with a quota utilization rate of 90 percent or greater.
c Where several exporters are aggregated, a quota category is counted if it applied to (was binding on) at least one exporter in the group.
d All exporters subject to MFA restrictions.
e n.a. = not available.

(a) MEASURES OF RESTRICTIVENESS

Against this background, we employ four indicators of the coverage, and indirectly of the restrictiveness, of the MFA: (i) restricted textile imports (subject to bilateral quotas) as a percentage of total imports of textile products from the MFA supplier(s) (REST/TOT); (ii) textile imports from the MFA supplier(s) subject to "binding quotas" (defined by utilization rates of 90 percent and above) as a percentage of total textile imports from the MFA supplier(s) (BIND/TOT); (iii) textile imports from the MFA supplier(s) subject to binding restrictions as a percentage of restricted textile imports from the MFA supplier(s) (BIND/REST); finally (iv) average quota utilization rates. These four indicators are presented in columns II to V of Tables 2A and 2B for the EC and the US.[13]

EC Market

Between 1985 and 1989 the textile trade coverage ratio (REST/TOT)[14] averaged 59 percent for EE, above the 57 percent average for all MFA suppliers. The average for the East Asians exceeded this, reaching 67 percent. By this measure there seems to have been some relaxation of restraints on textile imports in the EC market, as the trade coverage ratio for EE fell from 64 to 53 percent during the period; for East Asia it fell from 7? to 61 percent; and for all MFA suppliers, it dropped from 65 to 52 percent.

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[13] It should be stressed that these indicators are only probabilistic yardsticks of the restrictiveness of the MFA: trade subject to quotas is more likely to be harassed than trade which takes place outside quotas. Higher quota utilization rates and increasing proportions of shipments reaching quota limits entail greater probability of cases of export restraint and outright rejection of import licenses. Nevertheless, even full quota utilization concerning a certain shipment does not necessarily imply a binding constraint since the quota could be "just redundant," meaning that shipments could have been exactly the same had there been no quota. Conversely, in countries where distribution of quotas is inefficiently administered, the effects of the quotas are felt much before they reach full utilization (see Kumar and Khanna (1990) on India).

[14] The denominator is defined as all textiles and clothing, SITC 65+84.

Table 2A: Share of Eastern Europe in EC* Imports of Textiles and Clothing and Indicators of the Coverage and Restrictiveness of the MFA, 1985 - 1989 (percent)

Exporter	(I) Import Share[a]	(II) Restricted Imports (trade coverage ratio or REST/ TOT)[b]	(III) Imports Subject to Binding Restrictions BIND/ TOT[c]	(IV) Imports Subject to Binding Restrictions BIND/ REST[d]	(V) Average Quota Utilization Rate
EAST EUROPEAN FIVE					
1985	6.24	64.33	46.79	72.74	67.85
1986	6.51	62.52	45.87	73.36	62.44
1987	5.82	61.63	45.32	73.53	65.23
1988	5.40	55.00	38.80	70.54	51.96
1989	5.30	53.28	36.71	68.90	49.15
1985-1989	5.80	59.14	42.50	71.86	59.07
Bulgaria					
1985	0.31	48.99	41.27	84.23	75.56
1986	0.31	51.22	41.74	81.49	77.47
1987	0.24	57.46	44.88	78.11	73.14
1988	0.19	49.99	35.15	70.30	48.23
1989	0.20	42.11	15.40	36.56	46.80
1985-1989	0.24	49.96	36.01	72.07	63.86
Czechoslovakia					
1985	1.26	70.45	49.18	69.80	92.31
1986	1.33	68.62	52.01	75.79	88.53
1987	1.13	71.72	53.52	74.62	87.74
1988	1.00	65.29	44.15	67.63	63.07
1989	0.94	63.60	41.01	64.48	60.12
1985-1989	1.11	67.94	48.00	70.65	77.57
Hungary					
1985	1.32	57.34	40.13	69.25	54.61
1986	1.47	54.97	40.59	73.85	56.87
1987	1.38	50.37	37.89	75.21	60.56
1988	1.30	47.17	38.63	81.90	45.67
1989	1.29	48.18	40.00	83.01	44.49
1985-1989	1.35	51.26	39.42	76.91	52.60
Poland					
1985	1.25	57.78	40.94	70.86	57.23
1986	1.41	57.77	43.38	75.10	52.29
1987	1.36	55.26	43.22	78.21	69.51
1988	1.39	46.40	35.56	76.63	56.26
1989	1.37	44.39	32.28	72.71	63.23
1985-1989	1.36	51.53	38.55	74.81	61.32

Cont'd....

Romania					
1985	2.09	71.24	53.87	75.62	61.79
1986	1.99	69.16	48.07	69.50	52.32
1987	1.71	69.73	47.63	68.31	50.21
1988	1.53	63.39	38.85	61.28	42.35
1989	1.50	60.75	38.01	62.58	38.96
1985-1989	1.74	66.86	45.36	67.84	48.83
EAST ASIAN FOUR					
1985	23.81	76.95	39.00	50.69	75.98
1986	27.18	73.41	53.09	72.32	93.50
1987	27.67	66.26	49.99	75.45	101.68
1988	27.89	61.45	42.75	69.57	88.57
1989	26.16	60.61	41.87	69.08	77.44
1985-1989	26.59	66.76	45.27	67.80	87.18
ALL MFA SUPPLIERS					
1985	50.87	64.89	33.73	51.93	70.09
1986	55.44	62.46	41.77	66.88	77.90
1987	57.36	56.29	38.24	67.91	86.13
1988	58.25	53.39	33.75	63.21	78.65
1989	57.54	51.94	33.54	64.58	73.17
1985-1989	56.13	56.97	35.96	63.12	77.32

Con't....

Table 28: Share of Eastern Europe in US Imports of Textiles and Clothing and Indicators of the Coverage and Restrictiveness of the MFA, 1985 - 1989 (percent)

Exporter	(I) Import Share[a]	(II) Restricted Imports (trade coverage ratio or REST/ TOT)[b]	(III) Imports Subject to Binding Restrictions BIND/ TOT[c]	(IV) Imports Subject to Binding Restrictions BIND/ REST[d]	(V) Average Quota Utilization Rate
EAST EUROPEAN FIVE					
1985	0.83	62.61	7.04	11.25	19.59
1986	0.81	63.29	27.94	44.14	26.07
1987	0.87	62.88	23.82	37.89	32.97
1988	0.86	70.13	7.19	10.25	23.75
1989	0.56	59.91	10.58	17.66	15.08
1985-1989	0.78	64.13	15.54	24.23	22.69
Bulgaria					
1985	0.02	0.00	0.00	0.00	**
1986	0.02	37.29	0.00	0.00	86.93
1987	0.02	17.71	0.00	0.00	51.63
1988	0.01	40.13	0.00	0.00	24.58
1989	0.01	n.a.	n.a.	n.a.	n.a.
1985-1989	0.01	17.79	0.00	0.00	>4.81
Czechoslovakia					
1985	0.06	0.00	0.00	**	**
1986	0.04	16.29	13.44	82.51	64.65
1987	0.04	7.21	0.00	0.00	19.21
1988	0.05	13.40	12.86	96.01	49.77
1989	0.04	n.a.	n.a.	n.a.	n.a.
1985-1989	0.05	7.21	5.16	71.66	45.96
Hungary					
1985	0.16	27.82	13.96	50.19	52.87
1986	0.18	22.85	9.04	39.55	66.14
1987	0.23	33.57	18.82	56.06	90.68
1988	0.24	42.22	5.31	12.57	38.53
1989	0.23	41.36	13.54	32.74	47.
1985-1989	0.21	35.40	12.05	34.04	47.
Poland					
1985	0.14	69.91	0.00	0.00	6.74
1986	0.10	68.75	3.51	5.11	6.77
1987	0.13	72.15	4.02	5.57	10.89
1988	0.23	77.94	14.29	18.33	15.75
1989	0.18	78.21	16.45	21.04	10.58
1985-1989	0.16	74.89	9.95	13.29	10.41

Con't....

Romania					
1985	0.44	84.71	8.02	9.47	29.48
1986	0.47	82.61	42.49	51.43	41.89
1987	0.46	82.00	35.03	42.73	49.81
1988	0.34	93.55	3.05	3.27	27.23
1989	0.12	90.43	0.00	0.00	10.27
1985-1989	**0.35**	**85.76**	**22.07**	**25.73**	**29.83**
EAST ASIAN FOUR					
1985	51.29	72.97	51.17	70.12	88.44
1986	51.64	73.21	58.61	80.06	91.40
1987	50.71	78.86	58.86	74.64	89.75
1988	48.87	75.79	48.56	64.07	81.12
1989	48.99	78.45	56.77	72.36	85.24
1985-1989	**50.16**	**76.14**	**54.94**	**72.16**	**86.90**
ALL MFA SUPPLIERS					
1985	75.70	67.59	40.68	60.21	74.83
1986	76.20	68.48	51.46	75.17	80.63
1987	78.63	74.24	52.92	71.29	81.27
1988	79.43	73.52	43.35	59.56	69.86
1989	81.57	67.09	43.43	65.38	71.25
1985-1989	**78.61**	**70.31**	**46.39**	**65.99**	**75.10**

Source: The World Bank computer files on the MFA and UNSO COMTRADE Data Base.
Notes: Shares (columns I - IV) are calculated using value in current dollars. Utilization (column V) is based on volume of shipments. Textile products are defined broadly as SITC (Revision 2) 65 plus 84.

a As a percentage of total imports of textile products from all sources.
b Restricted imports are imports subject to bilateral quotas. As a percentage of total imports from the given supplier.
c Imports subject to binding restrictions are those imports with quota utilization rates of 90 percent or greater. As a percentage of total imports from the given supplier.
d As a percentage of restricted imports from the given supplier.
e EC(10) in 1985, EC(12) thereafter. Trade shares exclude intra-EC trade.
n.a. = not available; ** = not applicable (not under quota).

Taking the **share of imports subject to binding restrictions** (BIND/TOT)[15] as the measure of restrictiveness, 43 percent of all textiles imported from EE were subject to binding quotas. This compares with 45 percent for the East Asians and 36 percent for all MFA suppliers together. On this basis, EE was more restricted than the average supplier, and almost as restricted as the East Asians.

Of all EE textiles and clothing imported **under MFA quotas**, 72 percent were **subject to binding restrictions** (BIND/REST). This is higher than the 63 percent average for all MFA suppliers, and even higher than the East Asians' average of 68 percent.

It appears as if there was a general loosening of the regime vis-a-vis EE, particularly after 1987. In fact, this was due to declining **quota utilization**. With the exception of Poland, EE's quota utilization rates have fallen over time. In 1985, Czechoslovakia filled 92 percent of its quotas, but in 1989 used only 60 percent. Hungary's average utilization rate dropped from 57 to 44 percent during this period, Romania's fell from 62 to 39 percent and Bulgaria's dropped from 76 to 47 percent. Poland's average moved between 52 and 70 percent with no obvious pattern.

In comparison, the average quota utilization rate for all MFA suppliers increased from 71 to 86 percent between 1985 and 1987, then dropped to 73 percent in 1989, mainly due to some relaxation in the EC's MFA regime.

US Market

Within the US market the **trade coverage ratio** (REST/TOT) shows that, on average, 64 percent of EE's trade in textiles and clothing was covered by quotas between 1985 and 1989. This figure was 70 percent for all MFA suppliers

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[15] Bound products are those with a utilization rate of 90 percent or greater. An individual quota was included in the bound products subset only in those years in which it was binding. For quota growth rates and unit values, however, a product with a binding quota in at least two years was included in all years. This latter type of selection for unit value computations applies to the bound products subset only. For all products and for its subsets, unit values were computed cross-sectionally. The quota growth computations for these comparators, however, consider only continuous quotas.

and 76 percent for the East Asians. Only in the case of Romania was the ratio significantly above the average, at 86 percent. For three of the five EE countries, more trade has come under quotas in recent years. For Czechoslovakia and Bulgaria it has varied but remained very low.

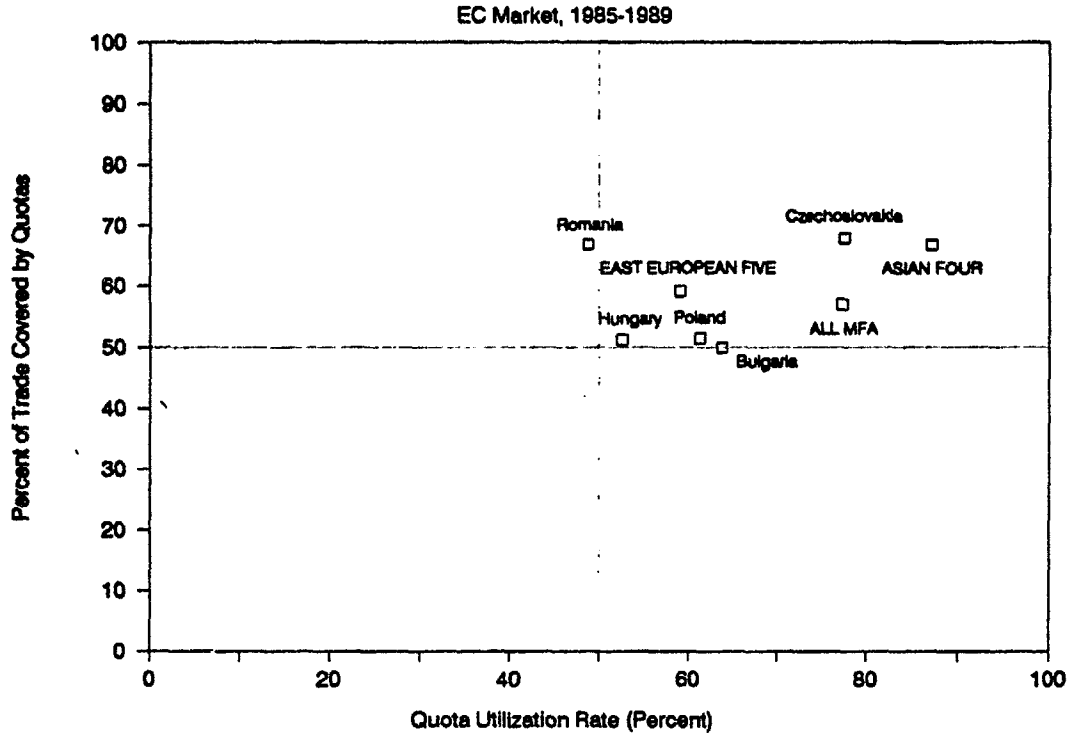
As measured by the **share of imports subject to binding restrictions** (BIND/TOT), EE was not highly restricted. Of all textiles and clothing imported by the US from the EE Five, only 16 percent were subject to binding quotas. This compares with 55 percent for the East Asians and 46 percent for all MFA suppliers together. Of all **trade under MFA quotas** from EE, only 24 percent was **subject to binding quotas** (BIND/REST). This was far less than the 72 percent average for the East Asian suppliers and the 66 percent average for all suppliers.

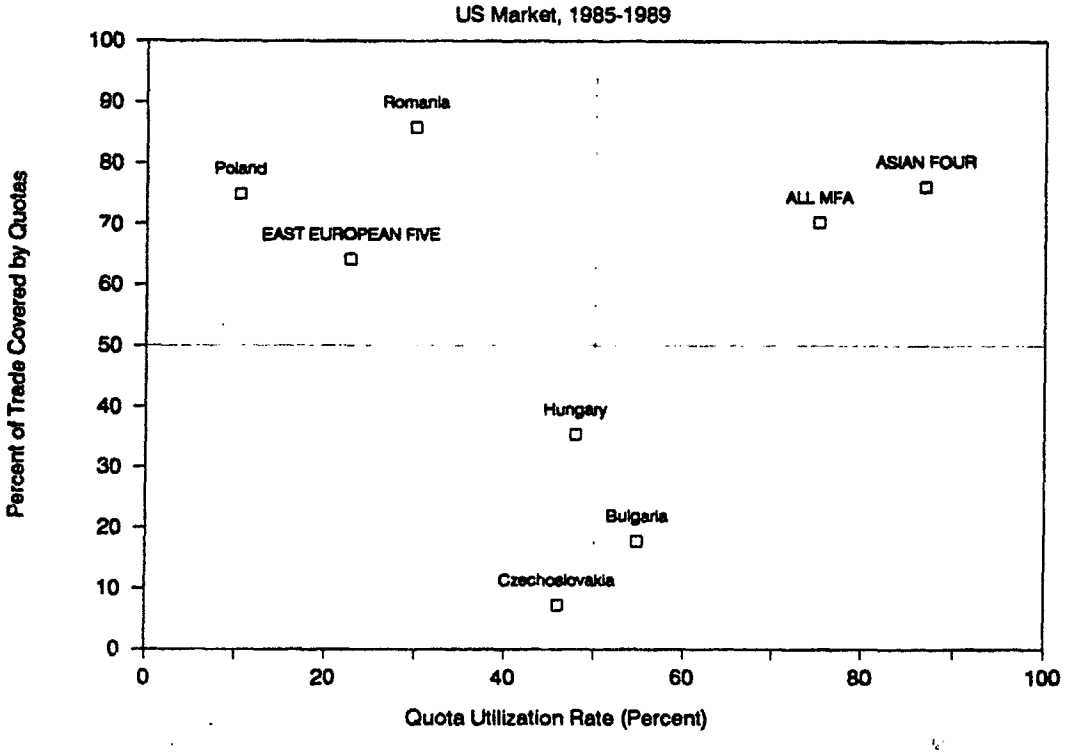
In terms of **quota utilization rates**, EE was generally not restricted in the US market, filling an average of only 23 percent of their quotas. Bulgaria, Czechoslovakia and Hungary each used roughly 50 percent of their quotas, Romania 30 percent, and Poland a meager 10 percent.

(b) A TYPOLOGY OF MFA SUPPLIERS

Figure 1 gives a two-dimensional characterization of the MFA suppliers based on the two most basic measures of restrictiveness discussed above. The **vertical axis** in the scatter diagrams, for the EC and US markets, indicates the proportion of the value of imports of textiles and clothing subject to quotas (REST/TOT). The average quota utilization rate is measured along the **horizontal axis**. The more competitive the suppliers and the more restrictive the MFA, the further to the northeast will the observation be. This is the case of the East Asian Four, where the grip of the MFA is the tightest, i.e., most of the suppliers' products are under quotas which are used to their limit. In the US graph, while the East Asian group lies in the northeast quadrant the EE as a group is in the northwest quadrant, as a result of the low quota utilization rate.

Figure 1: A Typology of MFA Suppliers





For data sources and notes, see Table 2.

(c) MFA QUOTA GROWTH

The benchmark annual quota growth in the MFA is six percent. However, the actual quota growth rate has been somewhat less than that; and in the case of the most dynamic exporters, quota growth has been significantly slower (see Erzan and Holmes, 1990). Furthermore, in the most "sensitive" products -- those which are generally the most constrained -- quota growth often has been considerably lower.

Obviously, quota growth works in the direction of relaxing the restrictiveness of the MFA regime. But besides that, it reflects the sentiments of the government of the importing country toward a certain supplier, which may be strongly influenced by the domestic industry. Often, this is a manifestation of expectations concerning the export potential of a supplier. To some extent, also, the "friendliness" of the exporting country plays a role.

EC Market

The average annual quota growth rate for the EE Five was 5.2 percent, and did not differ from the overall average for all MFA suppliers during the 1986-1989 period (see Table 3).[16] The average rate for the individual EE countries ranged from 1.8 percent for Czechoslovakia to 5.6 percent for Romania.

In products subject to binding quotas, EE's annual quota growth was 4.2 percent, somewhat below the overall average for all MFA suppliers, which was 4.8 percent.

US Market

In the US market, MFA quotas grew at an annual average rate of 4.0 percent per year between 1986 and 1989. Quotas on EE countries grew considerably

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[16] For consistency reasons we adopted 1986, the date of renewal of the MFA (or MFA IV), as the base year.

more slowly than average, at 2.5 percent.[17] Romania's quotas grew at 1.9 percent, while Hungary's shrank by 7.5 percent per year. Poland's quota growth was closest to the average, at 3.7 percent per year. Czechoslovakia registered an annual growth of 6.6 percent on its few (2) quotas while Bulgaria's only quota shrank by 1.9 percent per year.

We have already observed (from Table 1) that very few EE quotas were binding in the US market. Therefore, overall quota growth rates mean little. In binding quotas, contrary to the general picture in the MFA, some EE countries, notably Hungary and Poland, had significant quota growth in the US market.

[17] Quotas for wool products, which constitute about 30 percent of US textile and clothing imports from EE, have a notoriously low growth rate in the US (see Appendix Table A1).

Table 3: Quota Growth Rates in the EC and US Markets: Average Annual Percentage Change in Quota Volumes, 1986-1989

	EC Market[a]	US Market
A. All Quotas		
EAST EUROPEAN FIVE	5.2	2.5[b]
Bulgaria	5.1	-1.9[c]
Czechoslovakia	1.8	6.6[c]
Hungary	5.3	-7.5
Poland	4.7	3.7
Romania	5.6	1.9
East Asian Four	5.1	3.4
All MFA Suppliers	5.2	4.0
B. Binding Quotas[d]		
EAST EUROPEAN FIVE	4.2	2.2
Bulgaria	5.4	**
Czechoslovakia	3.7	**
Hungary	4.0	13.7
Poland	5.1	9.6
Romania	4.5	1.7
East Asian Four	4.9	3.4
All MFA Suppliers	4.8	4.2

Source: World Bank computer files on the MFA.

Notes:

"**" = not applicable (not under quota)

Quota growth computations consider only continuous quotas, i.e., quotas which were in place in all four years between 1986 and 1989.

a EC(12) in all four years.

b 1986-1989 average excludes Bulgaria and Czechoslovakia as 1989 data for these suppliers are not available.

c 1986-1988 average.

d Includes those products which had a quota utilization rate of 90 percent or greater in at least two years between 1986 and 1989.

III. "EXPECTED" AND ACTUAL PATTERNS OF SPECIALIZATION

The main interest in the effect of the MFA on EE exports lies in the following question: what would happen if the MFA quotas were relaxed in a multilateral fashion, or even on a preferential basis? We would ideally like to make some predictions on the scope and composition of the eventual trade expansion, based on current trade flows as well as on the level and structure of protection afforded by the MFA. However, formal prediction models either demand ad valorem equivalents for quota protection -- which are almost impossible to compute in the case of EE -- or resort to considerable simplification and aggregation.[18] The distortions specific to command economies and specifically the managed COMECON trade are also difficult to model. In this Section, therefore, we review the predictions of a simple factor proportions framework, and against this background analyze, at a detailed level, the factor intensity and degree of specialization of EE's textile and clothing exports in comparison with other MFA suppliers.

(a) THE "EXPECTED" PATTERNS OF SPECIALIZATION

If we adopt Krueger's (1977) characterization of the Heckscher-Ohlin theory depicting comparative advantage chains, countries would specialize in a segment of the product spectrum which corresponds, in terms of factor intensity, to their relative factor endowments.[19] As most textiles, especially clothing items, are relatively labor intensive[20], many of these products lie in the

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[18] For partial equilibrium models, see Cline (1978), and for a global model allowing interaction among various suppliers and markets, see Goto (1990). For a CGE application to textiles and clothing, see Trela and Whalley (1990).

[19] A critical assumption here is that there are no factor intensity reversals in the production of goods, regardless of relative wage rates. Furthermore, there is no factor price equalization; the countries are "small"; and, they all face the same technology frontier (yet not necessarily use the same technique).

[20] See Lary (1968), and Tuong and Yeats (1980). The capital intensity of most textile and clothing was only 41 to 66 percent of the US manufacturing industry's average in 1977 (see Yeats, 1990).

specialization area of labor-abundant developing countries. In addition, larger economies with a more diverse industrial base tend to produce a more differentiated range of manufactures. Finally, countries may extend their specialization chain by protecting goods which are either too capital-intensive or too labor-intensive with respect to their relative factor endowments (see Erzan, 1983).[21] These goods cannot be exported in the absence of subsidies. MFA-type quotas, by raising product prices and transferring (some of) the rent to the supplier may enable exports of non-competitive products.

The relevance of the Heckscher-Ohlin framework for the international pattern of specialization was demonstrated when textile and clothing exports from developing countries made dramatic advances in industrial markets (see Lary (1968) and Tuong and Yeats (1980)).

(b) **THE ACTUAL PATTERNS OF SPECIALIZATION**

The EC is by far the most important market for EE's exports to the West. We therefore examined the EC's textile and clothing imports from EE and compared these with imports from all other MFA suppliers. In the two dimensions we considered, the **overall factor intensity** of their exports and the suppliers' **degree of specialization**, EE's patterns were distinct and somewhat surprising: (i) the capital intensity of EE countries' (except Czechoslovakia's) exports to the EC was greater than that of the relatively more capital-abundant East Asian suppliers; (ii) there was much less specialization in EE's exports, i.e., their exports were dispersed over a wider range of products compared to almost all major suppliers.

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[21] Also, products can move into the specialization area of a country due to factor intensity reversals, e.g., those induced by heavy capital investment and automation. The revival of some segments of the textile industry in Europe during the 1980s is explained with this phenomenon (see GATT, 1987).

We did not examine factor intensity and product specialization in the US market as the meager volume of imports from EE considerably limits the statistical value of such analysis.[22]

Capital Intensity of Exports

We proxied the capital intensity of the EC's MFA product categories using value added per production worker in the US.[23] This computation is justified by Lary's (1968) finding that relative factor intensities of products do not change significantly across countries. Then, for each supplier, we calculated the average capital intensity of their exports to the EC under the MFA.[24] These are tabulated in Figure 2 along the horizontal axis, while the vertical axis gives the per capita GNP of the exporters as a proxy of their relative capital abundance.[25]

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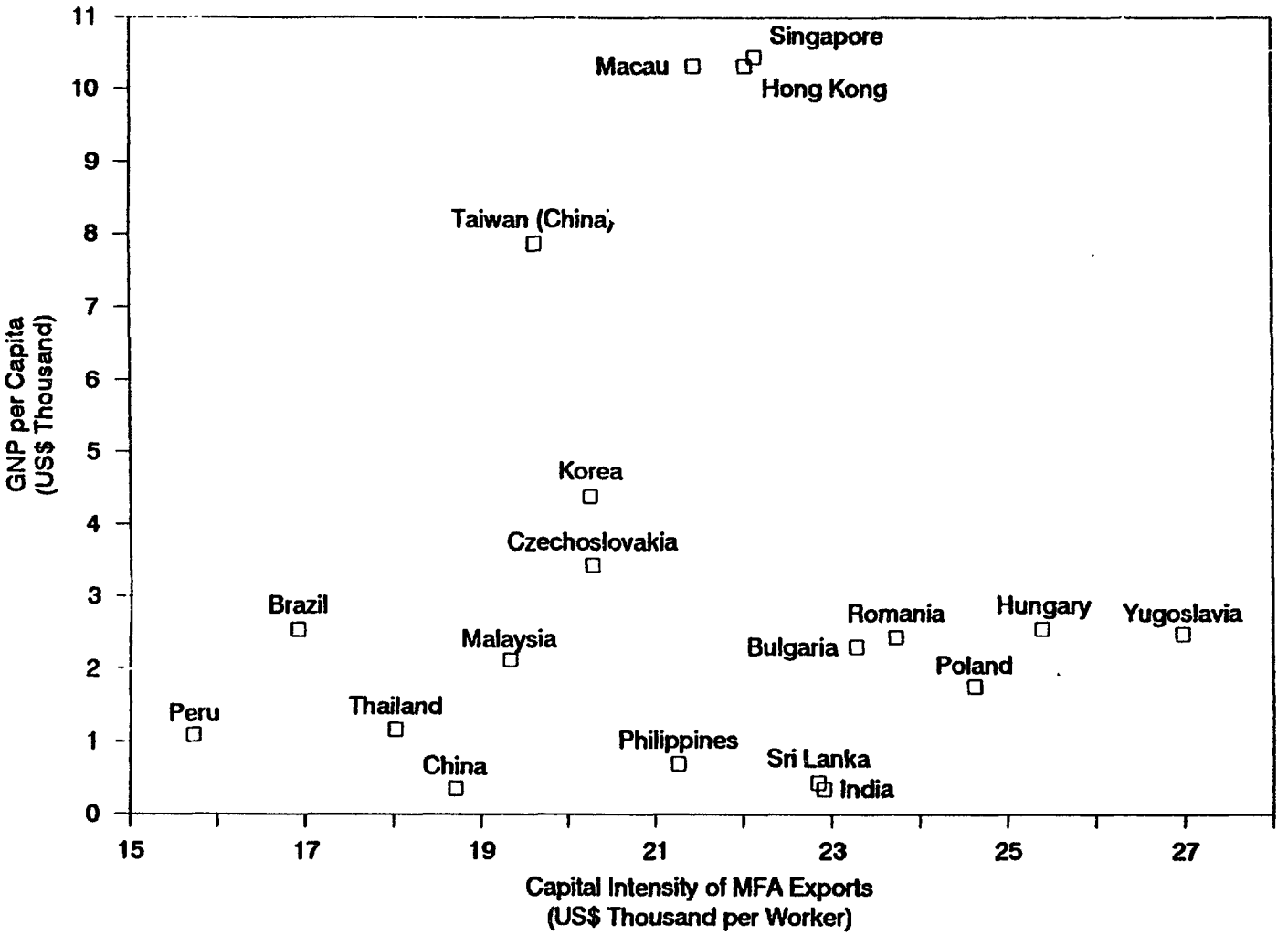
[22] However, in the US market, where the MFA categories distinguish products by type of fiber, we observed another distinct feature: wool products were extremely important for the EE suppliers compared to other exporters (see Appendix Table A1). The fiber type subsets, "wool products," "cotton products," "man-made fiber products," and "remaining products" apply to the US market only. Fiber type can be discerned from the first digit of the MFA category number. A leading "4" in the category number indicates the quota applies only to wool products, while a "3" indicates cotton products, and so on. "Remaining products" consists of those quotas which could not be placed in one of the other three groups. Such quotas include: (i) joint quotas covering more than one fiber type: (ii) the 200 series, which indicates products made from both cotton and man-made fibers; and (iii) the 800 series, which indicates silk blends and non-cotton vegetable fibers. The four fiber type subsets therefore sum to 100 percent of MFA shipments.

[23] For value added per production worker, following the tradition of Lary (1968), we used the US data; 1977 Census of Manufactures. In establishing a concordance between the 115 EC MFA categories (under MFA III and IV) and the US Standard Industrial Classification, 31 MFA groups could not be matched. Nine of these categories were not put under quotas, and the remaining 22 accounted for less than 2 percent of EC's imports under the MFA during the 1985-89 period.

[24] To aggregate over product groups, we used the actual trade values of each exporter.

[25] Of the 22 suppliers we excluded three, Argentina, Indonesia and Pakistan, as their exports to the EC under the MFA covered considerably less than half of their total textile and clothing exports to this market between 1985 and 1989. The GNP per capita data are from the World Bank Atlas, 1990, and pertain to 1989 or the latest year available. The figures for Czechoslovakia, Romania and Taiwan (China) are from unpublished Bank sources. For Macau's GNP per capita, we used Hong Kong's figures.

Figure 2: GNP per Capita and Capital Intensity of Textile and Clothing Exports to the EC under the MFA



Sources: The World Bank computer files on the MFA; *The World Bank Atlas* (including unpublished figures); the 1977 U.S. Census of Manufactures.

Note: The average capital intensity of textile and clothing exports is calculated using value added per production worker in the U.S. industry. The averages given here are based on each supplier's total exports to the EC under the MFA between 1987 and 1989.

The most striking impression from Figure 2 is that the exports of the highest income suppliers -- Singapore, Hong Kong, Macau, Taiwan (China) and Korea -- were only moderately capital-intensive. On the other hand, the exports of the EE countries, which have considerably lower income levels,[26] were among the most capital-intensive. Czechoslovakia was the only exception in this respect.

A more systematic analysis of the average capital intensity of MFA exports to the EC revealed only an insignificant (positive) relationship with the per capita GNP of the suppliers. The correlation coefficient between the two was 0.05 (and the Spearman rank order correlation coefficient was 0.09).

In the case of the East Asian suppliers, the prime cause of their non-comformity with the theory is probably the quota rents which enable them to export otherwise non-competitive, excessively labor-intensive products. This would occur under binding quotas. In fact, the correlation coefficient between the overall capital intensity of exports and the average quota utilization rate of the suppliers was -0.60, significant at the 1 percent level. Thus, the more binding the quota. the greater is the likelihood that labor-intensive exports become feasible.

To analyze the combined effects of relative capital abundance, proxied by GNP per capita (GNP/CAP), and average quota utilization rate (AV. QUOTA UTIL.)[27] on the overall capital intensity of exports (K/L), we estimated the following equation:

$$K/L = a + \alpha\ GNP/CAP + \beta\ AV.QUOTA\ UTIL. + \epsilon$$

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[26] Obviously, this analysis is extremely sensitive to the GNP per capita estimates for EE.

[27] 1985-89 average quota utilization of each exporter in the EC market.

The signs of the α (+) and β (-) coefficients were as expected, however while the former was not significant even at the 25 percent level, the latter was significant at the 1 percent level.[28] We then introduced a dummy variable for EE.[29] The coefficient of the dummy was significant at the 30 percent level and had a positive sign, meaning that being East European partially accounted for the relative capital intensity of exports. Conversely, when we introduced a dummy variable for the richer East Asians (the top five countries in terms of their GNP/CAP)[30], it had a negative sign but was not significant.

Finally, we analyzed the relationship between the capital intensity of the product groups and their share in each supplier's total exports of textiles and clothing to the EC.[31] As a first step, we checked whether there was any systematic bias in the size of the product groups. As the correlation between the size of MFA categories in EC's imports from all sources and their capital intensity yielded a coefficient of -0.01, we ruled out such a bias.

Table 4 reports the correlation coefficients between the two variables for each country. The first column lists the exporters for which the correlation was positive. In this group, only Yugoslavia, Romania, Poland and Hungary had significant coefficients. In the second column of Table 4, the countries which had a negative correlation are given. The ones with significant coefficients were Sri Lanka, Thailand, China and Taiwan (China). The results are as expected for these lower income countries, excluding Taiwan (China). For all other richer East Asian exporters, their relative capital abundance had no bearing on the factor intensity of their exports. This is in stark contrast to most EE suppliers whose exports were more than proportionately capital-intensive.

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[28] Ordinary Least Squares estimation: n=19; Adj.R-sq=0.28; F Value=4.57.

[29] The dummy variable takes the value of 1 for the EE Five, and 0 otherwise.

[30] Singapore, Hong Kong, Macau, Taiwan (China) and Korea.

[31] The universal set of textiles and clothing is defined here as SITC (Revision 2) 65 plus 84.

Table 4: Correlation between Capital Intensity of Product Groups and their Share in each Supplier's Total Exports to the EC during 1985-1989: Pearson Correlation Coefficients

(***, ** and * denote, respectively, significance at 1%, 10% and 25% levels)

Yugoslavia	0.74***	Czechoslovakia	-0.08
Romania	0.55***	Macau	-0.11
Poland	0.55***	Korea	-0.13
Hungary	0.38**	Taiwan (China)	-0.21*
Singapore	0.19	Philippines	-0.24
Bulgaria	0.16	China	-0.27*
Malaysia	0.07	India	-0.30
Hong Kong	0.06	Brazil	-0.40
		Thailand	-0.47**
		Sri Lanka	-0.74*

Sources: See Figure 2.

Note: The number of MFA product groups subject to quotas in which each supplier had exports to the EC varied considerably. Peru was excluded from this correlation analysis as it had only two product groups subject to quotas.

Degree of Specialization

There were 19 suppliers whose shipments subject to MFA quotas accounted for about 50 percent or more of their total exports to the EC. Based on this, we constructed an ad hoc concentration index reflecting the exporters' degree of product specialization. We first ranked (in descending order of their value), then counted the number of MFA product groups which accounted for 50 percent of each supplier's total exports of textiles and clothing to the EC (during 1985-89).

In Figure 3, the horizontal axis depicts the values of this index while the per capita GNPs of the exporters are measured along the vertical axis. The highest income East Asian exporters are in the upper left corner of the diagram with index values of 3 for Singapore and Macau, and 5 for Hong Kong, showing an extremely high degree of specialization. The other two high income

countries in the sample, Taiwan (China) and Korea were also considerably specialized, with index values of 10 and 12, respectively. In the lower right hand corner, diametrically opposite to the richer suppliers' group, was China, the low wage giant, whose exports covered an extremely wide range of products to reach the median export value.[32] The index number for China was 50.

The EE countries, particularly Hungary, Poland and Bulgaria, had a low degree of specialization compared to all countries in the sample except China. The index values for these countries were 28, 25, and 22, respectively, and for Czechoslovakia and Romania, 15 and 13.

Concerning the degree of product specialization, only weak predictions can be derived from the Heckscher-Ohlin framework which depicts chains of comparative advantage. One is that, as most textile and clothing products belong to the lower end of the spectrum in terms of their capital intencity, a larger number of them would correspond to the specialization segments of the relatively more labor-abundant countries. Consequently, relative abundance of capital, proxied by GNP per capita (GNP/CAP), would be associated with greater specialization (fewer products) in textiles and clothing. The other weak prediction would relate to the size of the countries, measured by GNP, and work in the opposite direction. The larger a country is, the longer would its specialization chain be in the commodity spectrum.

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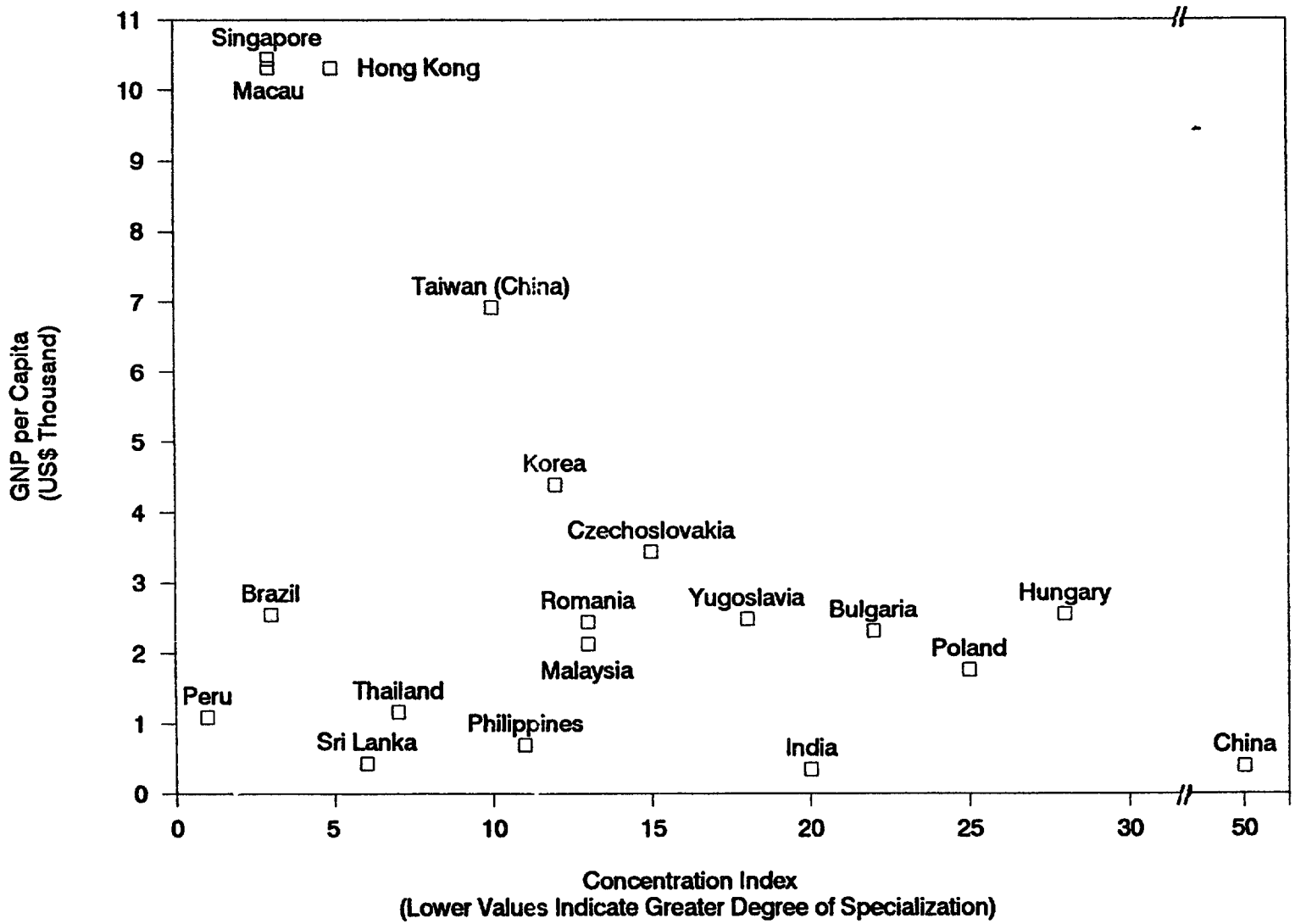
[32] This is consistent with China's efforts to diversify its exports to reduce the protectionist pressures building up against it in all major markets owing to China's huge potential.

Figure 3: GNP per Capita and Degree of Specialization of Exporters to the EC under the MFA



Sources: See Figure 2.

Note: Concentration Index = Number of MFA categories which account for 50 percent of the suppliers' total exports of textiles and clothing to the EC.

Table 5: Ordinary Least Squares Regression Results
(in parenthesis |t| values : ***, ** and * denote, respectively, significance at 5%, 10% and 25% levels)

Dependent Variable:			Degree of Product Specialization defined by the number of MFA categories accounting for 50 percent of the supplier's exports in textiles and clothing to the EC.		
n = 19					
Eq. (1)	INTERCEPT	+	(3.31)***	R-square:	0.28
	GNP/CAP	-	(1.59)*	Adj.R-sq:	0.20
	GNP	+	(1.49)*	F Value:	3.18
Eq. (2)	INTERCEPT	+	(1.80)**	R-square:	0.45
	GNP/CAP	-	(1.12)	Adj.R-sq:	0.34
	GNP	+	(2.30)***	F value:	4.16
	EE-DUMMY	+	(2.16)***		
Eq. (3)	INTERCEPT	+	(0.09)	R-square:	0.47
	GNP/CAP	-	(1.08)	Adj.R-sq:	0.32
	GNP	+	(2.01)**	F Value:	3.14
	EE-DUMMY	+	(2.23)***		
	AV. QUOTA UTIL.	+	(0.70)		

Note: See the text for definition of variables and data sources.

To test these hypotheses, with the index on the degree of product specialization (SPECIAL) as our dependent variable, we estimated the following equation:

$$SPECIAL = a + \alpha\ GNP/CAP + \beta\ GNP + \epsilon$$

The signs of the α (-) and β (+) coefficients were as expected, however they were significant only at the 25 percent level, and the overall fit of the equation was poor (eq. 1 in Table 5). We then introduced a dummy variable for EE (EE-DUMMY). The coefficient of the EE-DUMMY had the expected sign (+), was significant at the 5 percent level, and improved the overall explanatory power of the equation considerably (eq. 2 in Table 5). Therefore, we could not reject the hypothesis that EE is characterized by a relatively low degree of specialization. Conversely, when we introduced a dummy variable for the richer East Asians, its coefficient had the expected sign (-), but it was not significant.

Finally, we added the (1985-89) average quota utilization of each exporter in the EC market as an explanatory variable (AV. QUOTA UTIL.). It was hypothesized that higher average quota utilization, implying a greater number of binding quotas, would enable some non-competitive exports to take place. The sign of the estimated coefficient was as expected (+), yet it was not significant (eq. 3 in Table 5).

While the results show that EE's degree of specialization was disproportionately low, there was also some indication that the richer East Asian suppliers were probably "too" highly specialized. When we examined the product groups which figured prominently in the exports of the latter countries, we identified a number of large MFA categories that most had in common. These included (EC's MFA) categories 4 to 8 which cover the most common and relatively labor-intensive clothing items such as skirts, blouses, t-shirts, pullovers, shorts, trousers, etc. Consequently, we concluded that the extremely high degree of specialization of the newly-rich East Asians was not necessarily a manifestation of their income levels, but more likely reflected the impact of the historically-allotted quotas which yielded rents.

IV. CONCLUDING REMARKS

This paper finds that the trade-restraining impact of the MFA on the EE countries was not very different from that on other MFA suppliers. However, while the restrictiveness of the MFA regime in the EC was comparable with its impact on the major suppliers such as the East Asians, quotas were rarely an effective constraint in the US. The excessive non-MFN tariffs faced in the US by some of the EE countries were considerably more important barriers than quotas. Moreover, with some exceptions, EE has not been favorably treated in quota growth. It can be expected that this will change significantly in the future.

According to our estimates, the average capital intensity of EE's exports was relatively high compared to other MFA suppliers and their degree of specialization was relatively low. This would imply that if the MFA were abolished or relaxed vis-a-vis EE, their exports of relatively labor-intensive products would expand more than proportionately and their degree of specialization would increase. While we are extremely cautious about this forecast, we can more safely predict the opposite effect for the richer East Asian countries, such as Singapore, Hong Kong, Macau, Taiwan (China) and Korea, if the MFA were abolished. Our finding that these countries' exports were too labor-intensive and that they were probably over-specialized seems to relate directly to the impact of the MFA. When the quotas were imposed, these countries were at an early stage in their industrialization. The main targets of the quotas were the most common and relatively labor-intensive products. While these quotas initially had a restraining effect, once the East Asians moved up the income ladder -- and as poorer newcomers faced tighter restrictions -- the quotas, by yielding rents, allowed the richer suppliers to continue exporting less sophisticated products. An alternative but more likely supplementary reason is that new technology, including automation, have allowed these countries to remain competitive in these products.

In the case of the EE countries, the distinct pattern of their exports to the EC might not have been influenced significantly by the MFA. Given income levels similar to Western European countries prior to World War II, we can presume that, historically, EE started with a much more diversified product mix compared to the East Asians. During the last four decades, there never was a notable export boom to the West, neither in general nor in selective items.[33] This would be consistent with a rather uniform pattern of quota coverage and restrictiveness. We speculate that the distortive impact of the quotas, in terms of product composition, came not so much from changes in EE itself -- which were limited over the last two decades, except probably in Hungary -- but from the relative decline in this region's income level in the face of the rising East Asians and others. As well, both the quotas in place and the weak adjustment mechanisms inherent in a centralized economic system likely inhibited EE's expansion of relatively labor-intensive products.

As to EE's product specialization, taste similarities between the two halves of Europe certainly come into play besides relative factor abundance. In fact the Linder-type of trade, based on taste similarities, might explain in part the relatively low level of specialization in EE's exports to the EC.

One important distinction has to be made concerning the analysis of EE's trade patterns. We exclusively dealt with the composition of textile and clothing exports identified by MFA categories and their relative capital intensity. In fact, most of these products correspond to a relatively narrow band on the capital-intensity spectrum, and hence the error margins involved in such intra-industry analyses are considerable. On the other hand, since textiles and clothing items make up a large part of labor-intensive manufactures, where the comparative advantage of EE lies in the immediate future, we expect that exports of these industries from EE to the West will expand considerably.

It might be possible to make more specific inferences from other countries' experiences concerning EE's prospects. The main methodologies here

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[33] As the World Bank's computerized files on textiles and clothing start with 1981, we could not readily check on these presumptions.

are Balassa's (1978) "stages" approach to comparative advantage and Michaely's (1981) income levels and the structure of trade. The dimensions of this exercise need not be limited to physical capital (and income levels) as skill intensity and other product/country characteristics can be brought into play.[34] However, as all major exporters of textiles and clothing in the post World War II period, starting with Japan, evolved under quota restrictions, the results would have to be interpreted with extreme caution.

There are two sources of information for further research concerning EE's textile and clothing exports to the West in the immediate future. Firstly, the installed capacity in EE, especially in the more standardized production lines of fabrics and yarn, should give some indications of these countries' immediate export potential. Although such information is available at a quite detailed level[35], the economic interpretation of this type of engineering data is beyond the reach of the authors. The second source is national statistics on trade with COMECON countries. After all, the EE countries might have been exporting a quite different bundle of goods to the Soviet Union and to each other compared to their exports to the West. The reason why Czechoslovakia's trade patterns with EC were so different from the other EE countries may lie in that country's extreme trade dependence on the Soviet Union. However, difficulties in constructing a detailed and factual data set on COMECON trade considerably reduce the appeal of this route.

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[34] See, e.g., Baldwin (1971) Helleiner (1976), Hufbauer (1970) and Yeats (1990).

[35] See, e.g. The International Textile Magazine, December 1990, pp. 58-77.

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Appendix Table A1: Indicators of the East European Suppliers' Performance in the US Market by Fiber Type, 1985 - 1989

	COTTON PRODUCTS				MAN-MADE FIBER PRODUCTS			
	Percent of Total Imports[a]	Unit Value[b]	Quota Utilization Rate[c]	Quota Growth Rate[d]	Percent of Total Imports[a]	Unit Value[b]	Quota Utilization Rate[c]	Quota Growth Rate[d]
EAST EUROPEAN FIVE	33.0	1.65	22.4	4.5	29.4	1.36	23.1	1.3
Bulgaria	0.0	**	**	**	0.0	**	**	**
Czechoslovakia	0.0	**	**	**	0.0	**	**	**
Hungary	9.4	0.47	39.5	**	11.4	0.93	49.8	**
Poland	37.5	2.57	9.2	3.9	17.6	1.19	8.3	3.5
Romania	37.7	1.68	30.7	5.0	39.0	1.45	34.0	-0.5
East Asian Four	32.7	2.27	90.8	5.4	52.7	2.36	88.2	2.2
All MFA Suppliers	37.1	1.99	78.0	6.0	45.1	2.16	78.2	2.3

	WOOL PRODUCTS				REMAINING PRODUCTS			
	Percent of Total Imports[a]	Unit Value[b]	Quota Utilization Rate[c]	Quota Growth Rate[d]	Percent of Total Imports[a]	Unit Value[b]	Quota Utilization Rate[c]	Quota Growth Rate[d]
EAST EUROPEAN FIVE	30.0	6.55	44.6	-1.7[e]	7.6	3.00	11.7	4.0
Bulgaria	100.0	2.75	54.8	-1.9[f]	0.0	**	**	**
Czechoslovakia	100.0	5.18	46.0	6.6[f]	0.0	**	**	**
Hungary	79.2	5.86	66.7	-7.5	0.0	**	**	**
Poland	27.3	4.39	33.4	3.7	17.5	3.31	13.9	4.0
Romania	17.5	13.34	35.5	0.3	5.8	2.70	10.1	**
East Asian Four	6.0	8.92	85.6	0.7	8.4	2.38	68.8	5.7
All MFA Suppliers	5.0	8.50	70.5	0.6	12.8	2.23	59.7	7.5

Source: World bank Computer Files on the MFA.

Notes:

"**" = not applicable

US MFA categories are organized by fiber type. Here, cotton products are defined as the 300 series of MFA categories, man-made fiber products as the 600 series, and wool products as the 400 series. The remainder includes the 200 series (mixed cotton and man-made fiber products), the 800 series (silk blends and non-cotton vegetable fibers), and joint quotas covering more than one fiber type. The four fiber types listed in this table therefore account for 100 percent of imports.

a Trade-weighted 1985-1989 average based on current value of shipments.
b Trade-weighted 1985-1989 average expressed in current dollars per square yard equivalent.
c Trade-weighted 1985-1989 average.
d Average annual percentage change in quota volume between 1986 and 1989. Based on adjusted limits after flexibility provisions have been applied. Note that only continuous quotas (i.e., quotas which were in place in all four years) are considered in quota growth computations.
e Bulgaria and Czechoslovakia excluded from 1986-1989 average as 1989 data for these suppliers are not available.
f 1986-1988 average.

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