

## THE NATURE AND MAIN CHARACTERISTICS OF RECENT TURKISH GROWTH IN EXPORT OF MANUFACTURES

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### I. INTRODUCTION

MUCH of the recent discussion on the export performance of developing countries has focussed on the direction of manufactured exports to different markets and the implications that it has for a wide range of development issues. Although this interest is by no means new,<sup>1</sup> recent writings on the subject have generated a great deal of controversy that centers mostly on the relative merits of South-South and South-North trade. Two sets of arguments reflect the positions of the sides in this debate. (a) The removal of the anti-export bias of trade and industrialization policies generates a big response from manufactured exports. To the extent that they better reflect the factor endowments of developing countries, exports to the North are considered superior, particularly in relation to employment.<sup>2</sup> Views on South-South trade, on the other hand, range from those which regard it as a mere extension of the inefficiencies of previous import-substitution policies to export markets, often in an intra-regional context,<sup>3</sup> to those which label it as a “bureaucratically created, vent for surplus trade” and the product of a “self-destructive impulse.”<sup>4</sup> (b) Given the slow growth and increasing protectionist tendencies in the North, South-South trade can (and should) emerge as a viable alternative for developing countries that will have dynamic benefits for boosting levels of skill and technology and for creating a valuable learning effects.<sup>5</sup>

The main objective of this paper is to assess the nature and major characteristics of recent Turkish performance in export of manufactures against the background of the above two arguments. A related objective is to compare the results of the Turkish case with those of previous studies that are based mostly on cross-sectional data from a large number of countries.<sup>6</sup> The particular relevance of the Turkish case in this context stems from two major factors. First, the gradual but steady effort by Turkey to change its industrialization strategy from an inward-looking to an outward-oriented one. This has led to a rapid expansion of exports, reflect-

<sup>1</sup> See [14] [19].

<sup>2</sup> See [12].

<sup>3</sup> See [4].

<sup>4</sup> See [13].

<sup>5</sup> See [15] [1] [23]. For essays giving a wide range of viewpoints in the debate see [6].

<sup>6</sup> See, for example, [5] [7] [8].

ing in large part the dynamic export of manufactures. Second, the accompanying marked diversification in markets away from traditional markets in the North (mostly Western Europe) to developing countries in the Middle East.

In section II, the main features of export policy will be briefly discussed. Section III is devoted to examining the composition and direction of manufactured exports, emphasizing the factor content of exports to different markets. Section IV discusses the main factors responsible for the structure, pattern, and orientation of manufactured export growth. Section V presents the conclusions.

## II. MAIN FEATURES OF POLICIES AFFECTING EXPORTS

Turkey's industrialization strategy from the early 1930s to 1980 was based on import substitution through heavy protection and an array of other incentives. This strategy was initially instrumental in rapidly expanding the industrial base in sugar, textiles, paper, iron and steel, cement, and glass and from the early 1960s on in consumer durables, transport equipment, chemicals, petroleum products, machinery, light and heavy engineering, and electronics. Given the relatively higher incremental capital-output ratio (ICOR) and import intensity of these "second generation" import-substitution industries, however, industrial production and investment were faced with a growing balance-of-payments constraint which became particularly severe in the wake of the successive oil shocks in the 1970s that prompted further restrictions on imports. Despite the various export promotion schemes since the early 1960s, trade and industrialization policies remained heavily biased against exports throughout the period. As a result, export's share of GNP was largely stagnant and remained very low, averaging only 3.8 per cent during 1977-79.

The failure of export to grow significantly in the face of rapidly increasing imports and external debt service obligations was a major factor in the full scale payments crisis that emerged in the late 1970s. This, together with a parallel escalation in domestic inflation, prompted the introduction in January 1980 of a comprehensive stabilization program under IMF auspices, a principal aim of which was to reorient the incentives system towards exports. In sharp contrast to earlier policies, which sought to compress imports to the low level of exports, the new program aimed at carrying out a far-reaching policy of import liberalization and export promotion. On the import side, the removal of import quotas in 1981 was supplemented, beginning from late 1983, by liberalization in exchange control regulations, two major tariff revisions involving a sharp reduction in customs duties on a large number of imports, and more significantly, a substantial decrease in the number of items directly prohibited or subject to approval before importation.<sup>7</sup> Similarly, the sharp devaluation of the lira (by 33 per cent) in 1980 was followed by the adoption in 1981 of a crawling peg entailing daily adjustments and further real depreciation in subsequent years. This was accompanied more specifically on the export side by direct subsidies primarily for manufactured

<sup>7</sup> See [23] for details on main policies and effects of the stabilization program.

TABLE I  
DIRECT SUBSIDIES, REAL EXCHANGE RATE, AND REAL  
EFFECTIVE EXCHANGE RATE, 1980-84

Year	Total Direct Subsidy <sup>a</sup> (% of Exports) (1)	Real Exchange Rate (1980=100) <sup>a</sup> (2)	Real Effective Exchange Rate (3) = (1) + (2)
1980	22.1	92.5	114.5
1981	20.5	87.1	107.6
1982	20.6	96.2	116.8
1983	23.4	99.9	123.3
1984	15.1	104.5	119.5

Source: [18, p. 63].

<sup>a</sup> Based on the first quarter of 1980.

products through measures like the provision of preferential credits, foreign exchange allocations for imported inputs, and tax rebates.<sup>8</sup> As shown in Table I, the combined export subsidy (as a percent of exports) provided by these measures reached as high as 23.4 per cent in 1983 and averaged 20.3 per cent during 1980-84 as a whole.<sup>9</sup> These subsidies together with the depreciation in the real exchange rate led the index of real effective exchange rate to increase considerably, indicating a real effective depreciation of around 20 per cent during 1980-84.<sup>10</sup>

These export and import measures were instrumental in sharply reducing the effective rate of protection and its dispersion among branches in the manufacturing sector and creating a highly favorable environment for exporters. In this process, there were two additional developments which may be regarded as a further reflection of the government's commitment to export growth. First official visits to various countries became much more closely linked with the export drive and were in many cases accompanied by a strong team of exporting industrialists. Second, the government encouraged the consolidation of exporting firms, further simplified export procedures and improved the administration of export incentives.

<sup>8</sup> Calculations from [18, p. 51] show that during 1980-84, export credits, tax rebates, and duty free imports on average represented respectively, 40.4 per cent, 37.8 per cent, and 21.8 per cent of total export subsidy.

<sup>9</sup> Beginning in 1984, Turkey gradually changed its policy towards increased reliance on exchange rate adjustments and moved away from export subsidies. Although the failure to sufficiently adjust the exchange rate in the face of rapid inflation in 1984 led to an appreciation in real effective terms, it was corrected by a 16 per cent depreciation during 1985-86. With export growth losing its early momentum, however, tax rebates and preferential credits for exporters were reintroduced towards the end of 1986. For details see [20].

<sup>10</sup> Using a constant market shares analysis for total Turkish exports, [20] found that the residual component, i.e., the "competitiveness effect" was negative during 1975-80 but large and positive in the first half of the 1980s, with 70 per cent of the variation in the residual being explained by the real effective exchange rate.

### III. GROWTH PATTERNS AND CHARACTERISTICS OF MANUFACTURED EXPORTS

#### A. *The Data*

Data on manufactured exports is based on the Standard International Trade Classification (SITC) categories 5, 6, 7, 8 less 68 as given in the United Nations, *Commodity Trade Statistics* (CTS). Because the latest data available from this source was for 1984, this paper also draws upon OECD data for 1985 given in its *Foreign Trade by Commodities*. Both one-digit and three-digit SITC categories are used, the former to cover the broad groupings and the latter for a more disaggregated analysis at the commodity level. Apart from the inadequacy of three-digit categories in representing homogenous commodity groups, a major data flaw stems from failure to account for so-called "fictitious" exports related to the misuse of export incentive schemes in which some exporters falsely claimed and obtained tax rebates without actually exporting. Although the full extent is not known, it is generally believed that this phenomenon affected mostly exports to Western European destinations and in any case was probably related to not more than 10 per cent of total manufactured exports. As far as direction of trade is concerned the analysis is confined to the first two CTS categories, the developed countries (DC) and developing countries (LDC) which together represent an average 97.6 per cent of total manufactured exports for 1980–85. Given its significant role in Turkey's recent export expansion, the Middle East is also treated as a separate category.

The production data in this section, on the other hand, is based on the three-digit ISIC (International Standard Industry Classification) categories for large enterprises (with 10 or more workers) as obtained from the *1980 Census of Manufacturing*. The year 1980, the mid-point in the period under consideration provides a representative picture and enables us to draw upon the latest census results available. The selection of large enterprises is justified on grounds of better quality data and the fact that they produce most manufactured exports.

#### B. *Growth and Structure of Manufactured Exports*

Table II presents the main export categories and indicates that total exports nearly quadrupled during the short period from 1977–79 to 1984–86. Although all categories show increase by far the sharpest was in manufactures a highly impressive rise from 0.5 billion dollars to 4.4 billion dollars and a corresponding increase in total export share from 24.6 to 58.0 per cent.

The composition of manufactured exports by broad groups (Table III), shows that basic manufactures was by far the largest category followed by miscellaneous manufactures. Despite a still low share of the total, the machinery and transport equipment category grew at the highest rate. A major factor in the rapid growth of manufactured exports was marked diversification of markets towards LDCs, particularly those in the Middle East. These two destinations more than doubled their share from 1974–79 to 1980–85. (In 1985, for example, they represented respectively 46.9 per cent and 41.9 per cent of total manufactured exports. The

TABLE II  
TOTAL EXPORTS BY MAJOR CATEGORY, 1976-86

Product Category	(%)		
	1977-79	1980-83	1984-86
Agricultural products	68.6	51.2	33.1
Fruits and vegetables	26.1	14.6	9.0
Processed food	6.3	9.7	9.4
Other	36.2	26.9	14.7
Mining and petroleum <sup>a</sup>	6.8	8.6	8.9
Manufactures <sup>b</sup>	24.6	40.2	58.0
Total	100.0	100.0	100.0
Total (U.S.\$ million)	2,100.7	4,771.8	7,516.0

Sources: Calculated from [27] [20].

<sup>a</sup> Includes petroleum products and nonferrous metals.

<sup>b</sup> SITC 5-8 less nonferrous metals.

TABLE III  
PRODUCT AND MARKET COMPOSITION OF MANUFACTURED EXPORTS, 1976-85

SITC Code	Product Category	Product Composition		Market Composition			
				1974-79		1980-85	
		1974-79	1980-85	DC	LDC <sup>a</sup>	DC	LDC <sup>a</sup>
5	Chemicals	6.9	6.0	56.6	18.4 (13.2)	26.4	62.4 (47.2)
6	Basic manufactures <sup>a</sup>	65.2	55.1	71.8	24.1 (18.0)	40.0	58.0 (48.2)
65	Textiles	47.4	28.0	91.6	6.9 (5.5)	60.6	38.3 (35.2)
67	Iron and steel	3.7	13.3	47.3	47.8 (45.4)	7.1	92.1 (88.1)
7	Machinery and transport equipment	5.5	11.4	23.8	76.1 (57.8)	34.2	64.4 (49.7)
8	Miscellaneous manufactures	22.4	27.5	92.5	5.6 (5.1)	83.5	14.8 (9.4)
84	Clothing	20.7	24.3	97.9	1.4 (1.3)	96.2	2.1 (1.9)
Total		100.0	100.0	72.8	22.4 (16.9)	50.5	47.1 (37.6)

Sources: Calculated from [29] [21].

Note: Figures in parentheses are the Middle East share of total exports. For SITC 65, 67, and 84, market composition figures are for 1976 and 1983 only.

<sup>a</sup> Excluding 68.

TABLE IV  
 PRODUCT AND MARKET COMPOSITION OF MANUFACTURED EXPORTS BY USE, 1976-84

(%)

Product Category	Product Composition			Market Composition					
	1976	1980	1984	1976		1980		1984	
				DC	LDC	DC	LDC	DC	LDC
Consumption goods	77.2	70.1	67.5	89.2	9.5	74.8	17.8	74.4	24.4
Durables	2.3	2.8	2.2	46.4	51.7	33.7	65.7	17.2	82.7
Nondurables	74.9	67.3	65.3	90.6	8.2	76.5	15.8	76.4	22.4
Intermediate goods	18.8	20.8	24.0	43.5	44.2	35.3	50.2	13.1	83.0
Capital goods	4.0	9.1	8.5	14.5	83.8	32.3	67.0	35.4	63.5
Total	100.0	100.0	100.0	77.6	19.0	62.7	29.0	56.4	41.8
Total (U.S.\$ million)	465.8	782.0	3,849.0						

Source: Calculated from [29].

combined share of Iran and Iraq, the main trading partners, was a massive 32.1 per cent.) Another notable feature of this growth was that with the exception of miscellaneous manufactures, the LDC share exceeded that of the DCs by a wide margin in the latter period.

The composition of manufactured exports by use categories (Table IV), on the other hand, reflects the heavy dominance of nondurable consumption goods exported mainly to DCs. The share of intermediate and capital goods exported primarily to the LDCs, and particularly those in the Middle East, did, however, steadily increase. Although manufactured exports heavily concentrated in three major commodity groups, textiles, clothing, and iron and steel (Table III), the composition of exports strongly tended to diversify after 1980. This is evident from the declining share of these three commodity groups and the emergence of many new exports.<sup>11</sup>

### C. Factor Content of Manufactured Exports

In the absence of reliable disaggregated data on capital stock, we use value added per employee as a measure of capital intensity. Similarly the wage component of value added per employee is used as a measure of skill intensity. As an initial step, we classify manufacturing categories according to capital and skill intensity, using the average for the manufacturing sector as the benchmark for classification. We then use the concordance between SITC and ISIC to assign three-digit SITC categories to these branches. The flaws of this admittedly rough procedure arise largely from the failure of (non-homogeneous) three-digit ISIC categories to fully account for the dispersion in factor intensities between activities in the same category. We have attempted to overcome this difficulty by drawing

<sup>11</sup> For example, the number of three-digit SITC categories reported in [29] increased from 60 in 1979 to 80 in 1984.

TABLE V  
FACTOR CONTENT OF MANUFACTURED EXPORTS  
IN DIFFERENT DIRECTIONS, 1976-84

	(%)								
	1976			1980			1984		
	World	DC	LDC	World	DC	LDC	World	DC	LDC
Capital intensive	19.7	10.4	48.7	29.4	16.4	56.6	28.0	9.9	50.9
Labor intensive	80.3	89.6	51.3	70.6	83.6	43.4	72.0	90.1	49.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Skill intensive	21.5	10.9	56.1	31.0	17.0	60.6	31.5	10.6	58.4

Sources: Calculated from Appendix Table and [29].

TABLE VI  
DIRECTION OF MANUFACTURED EXPORTS  
BY FACTOR CONTENT, 1976-84

	(%)					
	1976		1980		1984	
	DC	LDC	DC	LDC	DC	LDC
Capital intensive	41.0	47.1 (39.2)	34.9	55.9 (45.3)	20.0	76.1 (60.5)
Labor intensive	86.7	12.1 (9.4)	74.3	17.8 (14.2)	70.5	28.5 (23.4)
Skill intensive	39.4	49.7 (38.8)	34.5	56.7 (46.4)	19.0	77.5 (61.7)
Low physical capital and low skill intensity (L, U)	88.2	10.6 (8.8)	75.4	16.5 (12.9)	73.5	25.4 (20.9)
Low physical capital and high skill intensity (L, S)	22.7	78.2 (34.3)	26.6	72.7 (67.0)	11.6	88.4 (71.3)

Sources: Calculated from Appendix Table and [29].

Note: Figures in parentheses are the Middle Eastern share in each export category.

upon the 1984 *Annual Manufacturing Industry Statistics*, the latest available at the time of writing, and by reclassifying individual exports which have been affected by this dispersion. The readjusted data is presented in Appendix Table which provides basic data on the factor content of manufactured exports from twenty-one manufacturing activities which are ranked in descending order of capital intensity.<sup>12</sup>

The breakdown of total manufactured exports into broad categories of capital

<sup>12</sup> Our classification of manufacturing activities by factor content and the allocation of manufactured exports to them from Turkish data is in general agreement with a recent study using U.S. data in which different components of value added were employed as a measure of factor intensity. See [2] for details.

intensity (Table V) indicates that while they remain predominantly labor intensive, the share of both capital- and skill-intensive products has steadily increased. Looking at the same categories by export direction to different markets in Table VI indicates, however, that the bulk of capital- and skill-intensive products went to LDC markets, mostly in neighboring Middle Eastern countries. With all capital-intensive exports also skill-intensive, further disaggregation of the broad factor intensity categories enables identification of two additional groups, those with low physical and skill intensity (L, U), on the one hand, and those with low capital and high skill intensity (L, S), on the other. Although neither of these two groups constitutes a large portion of total manufactured exports, the results are rather telling in this respect the first being exported primarily to the DCs and the second to the LDCs, particularly the Middle East (Table VI). As a direct result, manufactured exports to DCs were predominantly (unskilled) labor-intensive products while capital- and skill-intensive products were more than half of manufactured exports to the LDCs (Table V).

#### IV. AN INTERPRETATION OF MANUFACTURED EXPORT GROWTH

In the context of its poor pre-1980 export record, Turkey's performance since 1980 has been spectacular and very impressive compared to other countries.<sup>13</sup> It is all the more remarkable that this performance took place against a background of increased protectionism and slow market growth in trading partner countries. LDC markets remained highly protected and Turkey's traditional (labor-intensive) manufactures, like textiles, became increasingly subject to protectionist measures in the DCs, particularly in the EEC despite its associate membership to that group. Furthermore, growth in imports to industrial and Middle Eastern countries from non-oil LDCs like Turkey sharply fell from an annual average of 20.4 per cent during 1977-80 to 2.4 per cent during 1981-85.<sup>14</sup> The adverse effect of the downturn in international oil prices after 1983 on Middle East markets was undoubtedly a major factor in this drop. Another factor worth noting is that in sharp contrast with other successful experiences in exporting manufactures, foreign private investment played no significant role in this remarkable performance.<sup>15</sup>

There is a tendency to explain this performance as primarily an implementation of outward-oriented trade policies that increasingly rely on market forces.<sup>16</sup> While

<sup>13</sup> Among the 119 countries listed in [31], Turkey's average rate of export growth during 1980-85 was by far the highest with 25.3 per cent as opposed to only 5.5 per cent during 1965-80.

<sup>14</sup> See [10, p. 6] on this point.

<sup>15</sup> It seems that the share of the public sector in exports was also small. Our calculations based on the data given in [25] indicates that total exports by the ten leading exporting state economic enterprises, for example, was only 202.7 billion liras in 1984. This corresponded to merely 6.4 per cent of total exports in that year at the end-of-year exchange rates. In the manufactured exports category, exports by these enterprises included labor-intensive categories like textiles and clothing as well as capital-intensive ones like paper products, chemicals, and cement.

<sup>16</sup> See [10] for example.



not denying the role of these policies in removing the strong anti-export bias of previous policies and in creating a favorable overall environment for exporters, it seems that a more complete picture can be obtained by looking at the additional factors arising from particular Turkish economic circumstances. (1) Turkey's long all-out industrialization had by 1980 created a broad industrial base sufficiently mature to rely on production for world markets, particularly in textiles, glass, and iron and steel.<sup>17</sup> (2) Export expansion took place within a framework of mutually reinforcing stabilization. While import liberalization made inputs readily available to exporters at close to world prices, the large inflow of foreign funds from the World Bank, IMF, and OECD was instrumental in sustaining that process. Also instrumental in restraining domestic demand were the major price decontrol in 1980, the implementation of strict monetary and fiscal policies, especially during 1980–82, and severe restrictions on trade union activity that contributed to a steady fall in real wages throughout the period.<sup>18</sup> In the face of increased manufacturing, this led to the creation of a sizeable and widely based exportable surplus to give exports a strong initial boost before domestic demand began to pick up again in 1982. An additional element in this process was the availability of a sizeable excess capacity in manufacturing due in large part to the severe import shortages and recession of 1978–79. (3) The government was actively involved in an export drive that was pursued more actively in developing country markets and in a strongly regional context. The ensuing expansion of manufactured exports to Middle Eastern markets, however, was also characterized by a number of special factors. Increasing oil revenues in the region during 1980–82, Turkish neutrality in the prolonged war between Iran and Iraq, and cultural and geographical proximity to countries in the region contributed much to the increased demand for Turkish exports. But by far the most important factors in this trade were strong government intervention and direction. First, exports to LDCs concentrated on intermediate and capital goods of high capital and skill intensity and originated mostly in industrial categories having relatively higher domestic resource cost (DRC). These were also the categories receiving the highest export subsidy rates (Table VII). In fact, calculations from 1984 data show that exports from manufacturing categories with relatively higher DRCs (1.4 or higher) were 76.8 per cent and 63.9 per cent of manufactured exports to LDCs and the Middle East, respectively, while the corresponding rates for exports from branches with above average subsidy rates were 81.1 per cent and 64.9 per cent.<sup>19</sup> Second, a series of bilateral

<sup>17</sup> [30] ranks Turkey fifth among LDCs with respect to the size of her manufacturing sector behind Brazil, Mexico, India, and Korea.

<sup>18</sup> One recent estimate in [24] says that labor productivity as measured by value added per employee (in million liras and based on 1982 real prices) increased from 1.93 to 2.36 in 1981 and 2.45 in 1982 before declining to 2.21 in 1983 and 2.10 in 1984. With the fall in real wages largely accounted by restrictive labor legislation introduced during this period, it seems that factors like increased capacity utilization were largely responsible for productivity growth in manufacturing with no apparent link between labor-productivity changes and real-wage behavior.

<sup>19</sup> For branches like rubber and plastics, iron and steel, and transport equipment which had both high DRC and high subsidy rate, these ratios were even higher with 85.6 per cent and 73.6 per cent.

TABLE VII  
DOMESTIC RESOURCE COST, SUBSIDIES, AND  
MANUFACTURED EXPORTS TO LDC, 1984

Product Category	DRC Coefficient <sup>a</sup> 1981 (1)	Total Subsidy Rate <sup>b</sup> 1980-84 (%) (2)	LDC Share in Manuf. Exports <sup>c</sup> 1984 (%) (3)
Textiles	0.9	18.7	18.5 (160)
Leather and fur	1.6	17.3	12.9 (5.8)
Wood and paper	4.6	19.4 <sup>d</sup>	89.7 (78.0)
Chemicals	-10.8	16.2	61.2 (41.9)
Rubber and plastics	1.7	26.5	84.5 (74.1)
Cement and glass	0.6	20.4 <sup>e</sup>	77.0 (38.5)
Iron and steel	10.2	21.2	86.5 (78.5)
Metal products	1.0	94.4	81.8 (64.1)
Nonelectrical machinery	1.1	28.6	82.8 (74.8)
Electrical machinery	0.9	61.7	55.2 (39.1)
Transportation equipment	1.4	38.1	82.8 (51.7)
Total manufacturing	2.0	20.3	41.8 (33.8)

Sources: Col. 1, [32]; Col. 2, [18]; Col. 3, [29]; and Appendix Table.

<sup>a</sup> DRC (domestic resource cost) refers to estimates from 123 public and private firms in 66 manufacturing sub-sectors.

<sup>b</sup> Annual average subsidy rate from tax rebates, preferential credit and foreign exchange allocation for duty free imports.

<sup>c</sup> Figures in parentheses are the Middle Eastern share.

<sup>d</sup> Paper only.

<sup>e</sup> Average of cement and glass.

trade agreements exchanging Turkish manufactured exports for Middle East petroleum has been the major source of this barter-like trade.<sup>20</sup> Relevant here is the index of intra-industry trade (IIT) in manufactured goods to different destina-

<sup>20</sup> The minutes of the Turkish-Iraqi Joint Committee for Economic and Technical Cooperation published in the Official Gazette, May 3, 1984, for example, indicate the extent of bilateral trade flows envisaged and especially the importance attached to oil and energy in this respect.

TABLE VIII  
 INTRA-INDUSTRY TRADE BY MAJOR MANUFACTURING CATEGORY  
 AND DESTINATION, 1978 AND 1984

Product Category	1978 <sup>a</sup>		1984		
	DC	LDC	DC	LDC	Middle East
Chemicals	5.9	25.6	7.4	34.4	12.6
Basic manufactures	26.6	38.2	25.5	17.8	2.9
Machinery and transport equipment	1.5	20.8	8.7	32.5	12.4
Miscellaneous manufactures	6.1	—	3.5	12.5	8.1
Total	7.0	27.2	10.8	22.7	7.5

Source: Calculated from three-digit SITC data reported in [29] by using the formula for the (weighted) aggregate index given in [7].

<sup>a</sup> Data for the Middle East and for miscellaneous manufactures are confined to only several observations of a restriction that yields a zero IIT index for most commodities.

tions which has been calculated for major manufacturing categories in two different years (Table VIII). The results which show higher indices for most trade categories with the LDCs in both years generally agree with findings of a major cross-country study for developing countries.<sup>21</sup> The fact that IIT indices were low and falling from 1978 to 1984 and lower still for the Middle East despite common borders and special agreements,<sup>22</sup> may be taken as a further indication of barter-like trade arrangement.<sup>23</sup>

## V. CONCLUSION

After missing the opportunities provided by rapid regional market growth in the 1970s, Turkey sharply shifted its economic policy orientation towards exports to emerge as an important exporter of manufactures under much less favorable external demand conditions. This assessment of manufactured export performance suggests, however, that there were additional powerful elements in exports' quick response to the new set of policies especially in the initial years. These elements consist of severe domestic demand restraint, favorable external developments (such as demand in the Middle Eastern oil-exporting countries continuing to be stimulated into buoyancy by the Iran-Iraq War) and most significantly a higher interventionist export drive by the government spearheaded by bilateral trade agreements and provision of a variety of generous export subsidies.

<sup>21</sup> See [7]. The IIT index for all manufacturing in Turkey given in [7] for 1978 was relatively higher for trade with LDCs but considerably below the average for all LDCs in the sample.

<sup>22</sup> These factors, along side level of development, market size, and "openness" of trade policies are identified in [3] as contributing positively to intra-industry specialization.

<sup>23</sup> Manufactured exports to the Middle East in 1984 were 48.1 per cent of imports of petroleum and products from the region. The corresponding rates for Iran and Iraq were 31.4 per cent and 60.1 per cent.

The Turkish experience provides valuable insights for the debate on relative merits of South-South and South-North trade. It vindicates the responsiveness of exports to incentives and is a case of LDC markets providing (basically in a regional context) an alternative outlet for export expansion when twin pressures of a new wave of protectionism and recession made more established markets in the North less buoyant. The evidence here generally corroborates the findings of studies (using the same line of approach as ours) of other countries on the factor content of manufactured exports by direction. It finds exports to LDC markets to be, on the whole, more capital and skill intensive than those to the North. Exports are becoming increasingly capital intensive and still represent a small portion of total manufacturing and one should guard against exaggerating their actual and potential effects on Turkey's chronic unemployment problem. Despite the difficulties of measuring the full extent of these effects the much higher skill content of exports to LDC markets, on the other hand, points to the learning effect of this trade, which was probably strongest in acquiring valuable marketing skills by Turkish entrepreneurs after a prolonged period of inward orientation. A major drawback of this trade arises, however, from its strongly conjectural characteristic. Externally, export prospects are too closely tied to growth in Middle Eastern markets, which is in turn linked to such exogenous events like the eventual outcome of the Iran-Iraq War and the international price for oil. Domestically, it seems that the simultaneous presence of conditions like domestic demand restraint and availability of excess manufacturing capacity lay the foundations for an "easy" phase in export expansion. With capacity utilization rising steadily,<sup>24</sup> and domestic demand being revived thanks to looser monetary and fiscal policies, a growing trade-off between domestic demand expansion and further export growth may emerge and require new investment in export-oriented activities. In fact, the recent downward trend in international oil prices together with buoyant domestic demand can be largely held responsible for the decline in manufactured exports in 1986 which was accompanied by a significant fall in the share of Middle Eastern markets.<sup>25</sup>

On the theoretical front, our findings seem to corroborate the modified Linder thesis on the demand side,<sup>26</sup> i.e., a semi-industrialized country like Turkey will have greater success in exporting consumer durables and intermediate and capital goods to similar LDC markets. On the supply side, likewise, Turkey's exports of more capital- and skill-intensive products to LDCs less industrialized than itself confirms its position as a semi-industrialized country with a large industrial base and relatively higher accumulation of physical and human capital and seems to support the recent theoretical formulations of Krueger (multi-country, multi-commodity trade model) and Balassa (stages approach to comparative ad-

<sup>24</sup> According to data given in [28], capacity utilization in manufacturing increased from 56.7 per cent to 63.5 per cent during 1982-86.

<sup>25</sup> Data in [9] show that Turkish exports to the Middle East fell from 43.9 per cent of total exports in 1982 to 32.8 per cent in 1986. This was accompanied by a parallel fall from 40.8 per cent to 20.2 per cent in the share of Turkish imports from the region.

<sup>26</sup> See [16].

vantage).<sup>27</sup> Closer examination of the Turkish case indicates, however, that (1) this trade was heavily concentrated on second generation import-substitution branches with relatively higher DRCs, (2) was boosted by heavy government subsidies, and (3) was the product of barter-like arrangements with little sign of intra-industry trade developing so far even in a regional context. This lends strong support to some of the previous misgivings about the merits of this type of trade.<sup>28</sup>

Finally, on the increasingly ideological debate on the South-South and South-North trade, our investigation suggests a possibility that the experiences of countries participating in South-South trade are not homogenous. The arguments are not as clear cut as the various participants in that debate present them, and it is possible to take an intermediate position that argues for the promotion of trade in both directions. Although the uncertainties surrounding external demand in both Northern and Southern markets make it difficult to predict its effects on the volume, composition, factor content, and direction of manufactured exports, the government's strong commitment to an outward orientation of gradual import liberalization; and removal of direct export subsidies, despite recent reversals augurs well for the realization of this objective and should also help remove the shortcomings of South-South trade in the Turkish context. Turkey's ideal location between major markets in the North and South, and its recent experience in Middle Eastern markets and its determination to join the EEC as a full member, may enable it to continue a more pragmatic approach than implied by this debate and reap more fully the potential benefits of trade in both directions.

<sup>27</sup> In the extended Hechsher-Ohlin model proposed by Krueger, a semi-industrialized country like Turkey would be expected to have higher capital-labor ratios in trade with LDCs than with DCs. Balassa's formulation likewise argues that the structure of exports changes with the accumulation of physical and human capital. For details see [11] [2].

<sup>28</sup> See [4] [17].

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APPENDIX TABLE  
VALUE ADDED PER EMPLOYEE AND FACTOR CONTENT DISTRIBUTION  
OF EXPORTS BY MANUFACTURING ACTIVITY

Manufacturing Activity	Per Employee Value Added 1980 (1,000 TL) (1)	Wage Value Added Per Employee 1980 (1,000 TL) (2)	Factor Content (3)	SITC Categories of Manuf. Exports (4)	Share in Manuf. Exports 1984 (%) (5)
Basic industrial chemicals	2,391.7	509.1	K, S	51, 52	1.9
Rubber products	1,517.9	394.2	K, S	629*	1.4
Other chemicals	1,423.0	394.8	K, S	53-57, 59*	3.3
Electrical machinery	1,165.1	372.0	K, S	722-29	2.9
Iron and steel	1,114.5	509.3	K, S	671-79	13.8
Other nonmetallic products	986.3	274.6	L, U	662, 663, 667*	2.4
Glass products	928.7	284.9	L, U	664, 665	2.4
Paper and paper products	874.0	449.2	L, S	641, 642	0.9
Transport equipment	865.5	433.7	L, S	731, 733, 735*	3.2
Metal products	839.3	250.0	L, U	691-98, 812	2.0
Pottery products	836.8	297.6	L, U	666*	0.2
Nonelectric machinery	828.6	343.2	L, S	712-19	3.2
Printing and publishing	709.6	317.3	L, U	892	0.5
Textiles	706.9	239.3	L, U	651-57	26.1
Miscellaneous manufactures	686.9	210.5	L, U	862-64, 891, 893-94, 897, 899*	1.2
Wood and cork	665.6	248.5	L, U	631, 632	0.6
Footwear	529.6	250.0	L, U	851	0.2
Leather products	464.0	212.9	L, U	611, 612, 831	0.1
Professional scientific equipment	461.0	128.6	L, U	861	—
Wearing apparel	436.4	152.9	L, U	841, 842	32.9
Furniture and fixtures	376.7	118.1	L, U	821	0.8
All activities	1,047.0	321.6			100.0

Sources: Columns 1 and 2 derived from [27], Column 5, calculated from [29].

Note: K=capital intensive, S=skill intensive, L=labor intensive, U=unskilled labor intensive. \* denotes that certain SITC categories falling in these branches are excluded and grouped with activities with a different factor intensity. On the basis of corrections using [26] as mentioned in the text, SITC 58 and 621 are classified as labor intensive while SITC 629, 661, 711, 732, and 895 are classified as capital intensive.