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LABOUR CONTENT OF PAKISTAN'S MANUFACTURED TRADE

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by

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Introduction

The present paper is an extension of an earlier study on "Trends and Labour Content of Pakistan's Manufactured Exports". While in the former study a partial method (i.e. labour employed in home goods sectors only) was adopted to estimate the total labour requirements of exports; the present paper takes into account all the inter-industry linkage effects to calculate total labour requirements for exports as well as for import replacements.

The commodity classification of the present study differs slightly from the earlier one i.e. it is now more along the line of classification used for the input-output table [6]; for example the food manufacture category of the previous paper has been disaggregated into three sectors i.e. sugar and gur, edible oil food n.e.s. and beverages. Similarly industrial chemicals category of the earlier study was subdivided into three sectors i.e. industrial chemicals (excluding fertilizer), fertilizer, and petroleum and its products. So far in Pakistan the input-output table has been constructed for one year 1962-63 [7], hence only one set of total labour requirements could be computed. This makes it impossible to draw any conclusions about the changes in labour requirements over time. The results of this paper are thus limited to the findings of labour intensity of exports as compared to import substitutes.

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Methodology

The direct requirements in number of workers by Rs. one million of value added was obtained from CMI 1969-70. This vector $l_j^d = (l_j^d)$ where $l_j^d = L_j/V_j$, L_j being the number of workers and V_j the value added in million Rs. is shown in table [3], column [1].

The vector of total labour requirements is derived by simple Leontief input-output procedure i.e.

$$l_j^t = l_j^d [I-A]^{-1}$$

where I is the unit matrix and A is the original input-output matrix. The columns of $[I-A]^{-1}$ show the total direct and indirect uses of commodity i by the sectors j.

The vector of l_j^t was calculated for 1969-70 with the use of the vector of direct labour requirement from CMI 1969-70 and of the input-output matrix of 1962-63 which was adjusted to 1969-70 prices by S. Mazahir [6].

An important point to note is that the input-output matrix used contained information on all the sectors of the economy and not only on industry. In table III the data presented refers just to the employment in manufacturing since the vector of direct labour requirements obtained from CMI contains information only on those sectors. This causes some underestimation. To adjust this consideration has been made for agriculture sector. Table [IV] gives information on direct labour requirements for the agriculture sector and the home goods sector. Thus for three agriculture categories i.e. rice, wheat and cotton, the direct labour requirements were obtained by multiplying the average man years required per acre

in each crop by the corresponding total cultivated acreage of these crops. These labour requirements were then divided by the value added in each of the crops to obtain the labour value added ratios. The labour value added ratio for all other agriculture, fishery and forestry was obtained as an average of the three major crops, (for detail see Mazahir [6]).

For non-traded sectors, labour requirements were derived by multiplying the proportion of labour force employed in these sectors obtained from 1969-70 labour force Survey with the estimates of labour force of the Planning Division. Value added in these sectors was obtained from the national income accounts.

l_j^t has been computed excluding the linkage effect of agriculture sector and $l_j^{t^*}$ was estimated taking into account the linkage effect of agriculture sector.

Having determined the vectors of total labour requirements, the next step was to apply them to the vectors of composition of exports and import substitutes, presented in table [7]

thus obtaining

$$L_E^T = l_j^t \text{ (or } l_j^{t^*} \text{) } \cdot E_j \text{ [exports]}$$
$$L_M^T = l_j^t \text{ (or } l_j^{t^*} \text{) } \cdot M_j \text{ [competitive imports]}$$

where E_j or M_j is the vector of composition of exports or import replacement and L_E^T or L_M^T is total employment generated by the increase of one million Rs. either of manufactured exports or of import replacements, given the assumption of fixed coefficients implicit in the input-output technique.

Table: I

Valu

	<u>EXPORTS</u>	
	Value	Percentage share
1. Sugar and confectionery	1757	0.93
2. Edible oils	1423	0.76
3. Food n.e.s. & Beverages	22857	12.13
4. Tobacco	10	0.005
5. Cotton textiles	111945	59.40
6. Other textiles	136	0.71
7. Foot wear & madeup text.	5757	3.05
8. Wood cork & furniture.	169	0.09
9. Drugs & pharmaceuticals.	1436	0.76
10. Printing and publishing.	613	0.32
11. Paper and its products	241	0.13
12. Leather and its products	6756	3.58
13. Rubber and its products	400	0.21
14. Industrial chemicals.	808	0.43
15. Fertilizers	-	-
16. Petroleum and its products	-	-
17. Non Metallic mineral products	992	0.53
18. Basic Metal Industries	1587	0.84
19. Fabricated metal Industries.	2781	1.48
20. Non Electrical machinery	4772	2.53
21. Electrical machinery	820	0.44
22. Other transport equipments	1536	0.81
23. Motor Vehicles	4184	2.22
24. Miscellenous	17494	9.28
(A) Total Manufactured trade.	188474	
(B) Grand total (including primary products)	523789	
(A) as percentage of see(B) (9)	35.98	

-:4:-

Value of Exports and Imports for 1960-61 and 1969-70. Value in Rs.000

<u>IMPORTS</u>		<u>EXPORTS</u>		<u>IMPORTS</u>	
Value	Percentage share	Value	Percentage share	Value	Percentage share
1075	0.06	11169	1.10	1153	0.04
19059	1.15	2265	0.22	13896	0.50
24313	1.47	94454	9.30	35817	1.31
566	0.03	1686	1.66	1086	0.04
8541	9.51	511604	50.38	526	0.02
6775	0.41	826	0.08	16065	0.58
13477	0.81	87569	8.62	1501	0.05
18500	1.12	705	0.06	45993	1.68
73623	4.46	15350	1.51	72445	2.65
5138	0.31	2312	0.22	10736	0.39
15276	0.92	1087	0.10	30774	1.12
2489	0.15	117147	11.53	1023	0.03
36696	2.22	4105	0.40	64250	2.35
124222	7.53	12012	1.18	244094	8.94
27041	1.64	-	-	282272	10.33
198416	12.02	39820	3.92	32085	1.17
40129	2.43	20072	1.98	45444	1.66
297825	18.04	203	0.02	365089	13.37
62499	3.79	7324	0.72	115480	4.23
278914	16.90	6546	0.64	709001	25.96
130123	7.88	47677	0.47	218850	8.31
91763	5.56	1162	0.11	182950	6.70
132361	8.02	530	0.05	157119	5.75
41446	2.51	72864	7.17	82948	3.03
1650324		1015579		2730600	
2124968		1513282		3364817	
77.66		67.11		81.15	

Results

In table [I] the values of exports (at f.o.b. prices) and imports (at c.i.f. prices) for two years 1960-61 and 1969-70 are given. It is apparent that for both the years a few industries account for nearly 85% of the total exports and 56% of total imports. Percentage share of various sectors in total exports and imports show that cotton textiles, leather, footwear, food n.e.s. and miscellaneous manufactures are the major exporting sectors and industrial chemicals, fertilizers, petroleum and its products, basic metal and non-electrical machinery the major importing sectors. One very striking fact is that share of petroleum and petroleum products in total manufactured imports has dropped down from 12% in 1960-61 to 1% in 1969-70; inspite of rising prices of petroleum. The following table explains the reason for this strange result.

Table: II

Value of petroleum imports

	1960-61		in Rs. 000 1969-70	
	Value	% age share	Value	% age share
Petroleum and petroleum Products	198416	99.97	32085	15.32
Petroleum crude and partly refined	53	0.03	177316	84.68
TOTAL:	198469	100.00	209401	100.00

Source: [5].

i.e. previously there was a heavy concentration on the import of refined petroleum and petroleum products whereas in recent years, the trend has changed; now larger proportion of the petroleum import is based on crude and partly refined petroleum. [The final refining is done domestically after setting up oil refinery in Karachi].

On exports side share of cotton textiles in total manufactured exports has decreased from 60% to 50% and that of leather increased from 4% to 11%. The decrease in cotton textiles exports could be attributable to the fact that domestic consumption of cotton yarn had increased over time.

Table III column 1 gives the direct labour requirements per million Rs. of value added; column 2 total labour requirements excluding the linkage effect of agriculture sector and column 3 including the linkage effect of agriculture.

Hence comparing the labour intensity with ^{and} ~~the~~ without the agriculture linkage effect it is apparent that few sectors which had labour intensity less than overall average without the inclusion of agriculture linkage effect were sugar, edible oils, tobacco, other textiles, and rubber, they became more labour intensive than average when linkage effect of agriculture is included. This is due to the fact that raw material for these sectors is obtained from agriculture sector.

The following table gives us the input coefficient (a_{ij}) from input-output matrix for the four agro based labour intensive sectors, it shows the intensity of dependency of these sectors on agriculture.

Table: III

Direct and Total Labour requirements in manufacturing per one million Rs. of Valueadded, 1969/70
(in man years.)

	Direct labour requirement. l_j^d	Total Labour requirement excluding the linkage effect of agriculture sector. l_j^z	Total Labour requirements including the linkage effect of agriculture sector. l_j^t
1. Sugar and Confectionery	40 (a)	119 (a)	1282 (b)
2. Edible Oils	38 (a)	113 (a)	683 (b)
3. Food n.e.s. + Beverage	78 (a)	200 (a)	333 (a)
4. Tobacco.	27 (a)	140 (a)	840 (b)
5. Cotton Textiles	122(b)	288 (b)	461 (b)
6. Other Textiles	137(b)	327 (b)	375 (a)
7. Foot wear and madcup text.	56(a)	117 (a)	261 (a)
8. Wood Cork and Furniture	230(b)	255 (b)	806 (b)
9. Drugs and Pharmaceuticals	59 (a)	122 (a)	165 (a)
10. Printing and Publishing	124(a)	187 (a)	215 (a)
11. Paper and its products	101(a)	188 (a)	224 (a)
12. Leather and its Products	56(a)	117 (a)	261 (a)
13. Rubber and its Products	62(a)	187 (a)	472 (b)
14. Industrial Chemicals	56(a)	98 (a)	114 (a)
15. Fertilizers	34(a)	199 (a)	200 (a)
16. Petroleum and its Products	6 (a)	108 (a)	109 (a)
17. Non-metatic minerals Products	81(a)	195 (a)	199 (a)
18. Basic metal Industfies	118(b)	380 (b)	382 (a)
19. Fabricated metal Industries	207(b)	415 (b)	417 (b)
20. Non-Electrical machinery	221(b)	304 (b)	309 (a)
21. Electrical machinery	100(a)	264 (b)	274 (a)
22. Other Transport equipment	612(b)	664 (b)	680 (b)
23. Motor Vehicles	151(b)	340 (b)	398 (a)
24. Miscellenous.	77(a)	212 (a)	248 (a)

Table IV

-:8:-

Direct and Total Labour requirements for non-manufacturing sectors.

<u>Agriculture</u>	<u>Direct Labour requirements.</u>	<u>Total labour requirements.</u>
	<u>1 d</u>	<u>1 t*</u>
	<u>1 j</u>	<u>1 j</u>
Rice	224	541
Wheat	265	844
Cotton	229	619
All other Agriculture fishery + forestly	1528	1810
<u>Home Good Sectors:</u>		
Construction	397	564
Electricity + gas	114	163
Transport	237	407
Trade (wholesale + retail)	281	302
Government	481	564
Services	481	497

Table V

Input Coefficients for Four Major Agro Based Industries

Input-output matrix code	05	06	07	13
	Sugar	Edible Oils	Tobacco	Rubber
04 All other agriculture fishery and forestry	.6615	.2464	.3974	.1516

Source: [6].

The sectors which are more labour intensive than overall average for manufacturing by both criteria are wood cork and furniture, cotton textiles, fabricated metal and other transport equipments. High labour intensity for the three sectors does not need any explanation but for transport equipments, it is strange to have such a high labour intensity. The reason for this could be that direct labour coefficient for this sector given in CMI is not for the manufacturing of transport equipment rather it is just the repair and manufacturing of cycles and rickshaws.

The sectors less labour intensive than national average by both criteria are food n.e.s. and beverages, footwear, drugs and pharmaceuticals, printing and publishing, paper and its products, leather, industrial chemicals, petroleum, cement and miscellaneous manufacturing.

The final results are presented in table [VI]. As mentioned earlier, the relevant measure to us is employment per million Rs. of value added. We have assumed that an increase of one million Rs. of exports which represents an increase in final output of one million

Table VI

-:10:-

(in man years)

Total Labour Content of Trade per on million Rs. of Exports and Competitive Import Replacements for Pakistan-1969-70.

	$\frac{L^T}{L^E}$	$\frac{L^T}{L^M}$	$\frac{L^T}{L^E} / \frac{L^T}{L^M}$
	Exports	Imports	Exports/Imports
a) Excluding the linkage effect of agriculture	224	293	0.76
b) Including the linkage effect of agriculture	373	326	1.14

The sector has labour intensive than national average by both criteria are food, clothing, footwear, drugs and pharmaceuticals, printing and publishing, paper and its products, leather, industrial chemicals, petroleum, cement and miscellaneous manufacturing.

The final results are presented in Table IV. As mentioned earlier, the relevant measure for the equipment per million Rs. of value added. We have assumed that the factor is on a million Rs. of exports which represents an output of one million

Rs. is equivalent to an increase in value added in the same amount.

Comparing the final results we see that imports of industrial goods are more labour intensive than exports when we ignore the linkage effect of agriculture i.e. 224 workers per million Rs. of exports and 293 for import replacements. But when intermediate deliveries from agriculture is taken into account the result is reversed, now it is 373 workers per million Rs. of export and 326 workers per million Rs. of import replacements, i.e. now exports are more labour intensive than imports by a ratio of 1.14

The switch in the result is due to the fact that our exports are heavily weighted by cotton, leather, food n.e.s. and foot wear which are expected to demand a substantial volume of inputs from agriculture sector. To the extent that agriculture is more labour intensive than industry, the neglect of the linkage from agriculture sector could seriously underestimate the relative labour intensity of food, cotton, leather and footwear etc. and as such the relative labour intensity of exports.

Hence when we take into account the agriculture linkage effect, our finding supports the Heckscher-Ohlin Hypothesis i.e. Pakistan being a labour abundant economy exports relatively more labour intensive goods as compared to its imports.

International Comparison of Labour Intensity for Exports
and Import Replacements

^{Some} Most of the studies done on this subject are based on finding the employment creation of export expansion only (see [1], [12], [13] while ^{most} ~~some~~ explore the intensity of capital along with labour for exports as well as for import replacements (see [2], [3], [6], [7], [8], [10], [11]).

Table VII gives estimates for ratios of labour intensity of exports to imports from studies for various developing countries, India by Bharadwaj and Bhagwati [2], South Korea by Lim Youngil [11], Japan by Ichimura [8], Brazil by Carvalho and Haddad [3]; results for Pakistan are based on findings of the present paper. All the results were derived by following Leontief's input procedure.

For India, labour intensity estimates were made for total merchandise and was found that labour intensity of exports was higher than that of imports by a ratio of 1.46. They were thus in consonance with the Heckscher-Ohlin hypothesis i.e. Indian (it being a labour abundant economy), exports absorb relatively more labour vis-a-vis import replacements of equal value.

In case of South Korea, the fact that the labour content of exports was less than that of imports by a factor of 0.84 may be attributable to the relatively labour intensive nature of Korean agriculture and to the large imports (relative to exports) of agricultural goods. So in order to isolate the effect of agricultural trade on labour content,

Table VII

Ratios of Labour intensity of exports to labour intensity for imports:

<u>Country/Year:</u>	<u>L_E/I_M</u>
1. <u>India (1953-54)</u> Total Merchandize @	1.46
2. <u>South Korea (1968)</u> Total merchandize: @	0.84
• Manufactures only	1.21
3. <u>Brazil (1959)</u> Total merchandize@	2.00
Manufactures only:	0.88
7. <u>Brazil (1971)</u> Manufactures only:	1.36
4. <u>Pakistan (1969-70)</u> Total merchandize @	1.14
Manufactures only:	0.76
5. <u>Japan (1951)</u> Total merchandize @	0.67
6. <u>U.S (1947)</u> Total merchandize:	1.07

a) It shows labour intensity including the linkage effects of agriculture sector.

Sources:

- b)
- | | |
|-----------------------|----------------|
| 1) India see [2] | 5) Japan [8] |
| 2) South Korea [11] | 6) U.S. [10] |
| 3) Brazil [3] | |

c) Results for India and South Korea and based on Labour per value of output and for Brazil and Pakistan Labour per value- added.

agriculture was excluded and labour content was again estimated for manufactured goods only. The result thus obtained lent a strong support to the Heckscher-Ohlin theory, for the labour content of exports was greater by a factor of 1.21 than those of imports.

Labour intensity estimates for Brazil for 1959 show that Brazilian exports were less labour intensive than imports when agriculture effect is not taken into account. This is so because the exports of industrial goods in 1959 were not only small in value but also heavily weighted by food. Since food products demanded a substantial volume of input from agriculture sector, thus the neglect of linkage of agriculture caused a serious underestimation of labour intensity of food sector and in turn the relative labour intensity of exports. Thus when agriculture effect was incorporated, the exports came twice as much labour intensive than imports which is in accordance with the Heckscher-Ohlin theorem since labour should be the abundant factor in Brazil. For year 1971, in spite of the exclusion of agriculture sector, Brazilian exports came out to be more labour intensive than her imports, precisely due to the fact that agro based sectors held a smaller share in exports for the latter year. Labour intensity estimates for Pakistan are comparable with the results obtained for Brazil for the year 1959; i.e. exclusion of agriculture sector makes exports less labour intensive than imports and vice versa. Like in case of Brazil it was the heavy weight of agro based food sector in exports, in case of Pakistan it is the heavy concentration of agro based cotton textiles in exports which requires the inclusion of agriculture sector linkage

effect to attain a true labour intensity of exports.

Japan is a developed economy so her exports are much less labour intensive than imports by a ratio of 0.67.

Result for U.S. is based on Leontief's paradoxical findings.

TABLE VIII

Factor Requirements per \$100 Million Exports on
Import Replacements : Korea (1970)

	<u>Capital (Million 1970#)</u>	<u>Labour (1000 persons)</u>
<u>Exports</u>	98.0	66.0
<u>Competitive - Imports</u>	116.7	69.5
<u>Non-Competitive Imports</u>		
1947 U.S. Coefficients	178.6	9.7
1958 U.S. Coefficients	148.3	8.1
1965 Japanese Coefficients	143.0	34.9
1970 Japanese Coefficients	137.5	28.0

Source : Table 9.4, Hong Wotack [7].

Results for Korea are given in a separate table because unlike Leontief and his followers, static model, Hong's study is dynamic in the sense that it investigates the change in factor intensity of trade over time. Moreover this study takes into account the non-competitive imports too. Hong divides the non-competitive imports into natural - resource based and non-natural - resource base, while he ignores the former but incorporates the latter in his estimation of factor intensity. The findings of this study indicate that increasing capital intensity of Korean export bundle was due to significant capital - labour substitution in the production process.

The factor requirements of non-competitive imports were estimated by applying U.S. and Japanese sectoral factor requirements.

Noteworthy fact is that Korea's Labour requirement of Exports are slightly less than competitive imports but much more than non-competitive-imports based on either U.S. or Japan's sectoral requirements.

Some of the findings of Hong's paper are very interesting.

The remarkable fact that the amount of both capital and labour required per \$100 million worth of non-competitive imports decreases significantly when more recent set of coefficient of either U.S. or Japan are applied indicates that significant technological progress occurred in both the U.S. and Japan and a consequent decrease in factor requirement did not differ greatly between the U.S. and Japan the latter required about four times more labour than the former per unit of output indicating that the production process in Japan was less efficient than in U.S.

per unit of output. Another noticeable fact is that while capital requirement

Limitations of the Present Study

1. The present study is limited to large scale manufacturing industries and small scale industry sector has been ignored inspite of its important role in creating employment and its contribution (roughly 30 percent) to the total exports of manufactured goods. Neglect of this relative more labour intensive sector results in underestimation of the actual labour intensity of exports.
- 2- Following Leontief's approach all the natural resources-based imports (agriculture, fishery, forestry and mining) have been treated as non-competitive imports, and all the manufactured imports are classified as competitive imports. Leontief was correct in assuming only natural-resource-based imports as non-competitive as in U.S. there are very few things which could not be produced because of a scarcity of capital. However there are many things which are not produced in Pakistan due to capital scarcity and hence are imported non-competitively. Since Pakistan could be saving a large amount of capital by importing rather than producing these goods, they should not be excluded from the computation of factor requirements for import replacements. But in the present paper all the manufactured imports (including the non-competitive-non-natural-resource-base, imports) are taken as competitive imports and for estimating the labour intensity of imports substitutes, the domestic labour coefficients were used. There are certain imports which are not produced domestically at present, but we were compelled to use the labour coefficients available domestically which misrepresented the true labour requirements of such sectors. Take the example of transport equipment, CMI gives labour

requirement for transport repairs and assembling; this will naturally be much more labour intensive than transport manufacturing itself, hence showing a bias of overestimation of labour intensity of imports.

3. As of Leontief's and his follower's work, this study is also static in the sense that due to availability of one input-output table, only one set of labour coefficients could be computed. The analysis could have been dynamic if input-output tables were constructed for more than one year. Moreover Direct labour requirements of all the sectors has declined over ten years period i.e. from 1960-61 to 1969-70 \downarrow 9 \downarrow . But when we use 1962-63 input-output table for estimating the total labour requirements for 1969-70 by assuming that technology had remained constant over this period, it gives us an over estimation of the true labour intensity.

4. Due to non availability of data, it was not possible to compute the skill content of trade, which is suppose to be a much better measure of factor intensity.

Summary and Conclusions

The purpose of present study was to test the Heckscher-Ohlin theorem with respect to Pakistan's trade along the lines of Leontief's analysis. A factor paradox phenomenon was found when linkage effect of agriculture sector was not taken into account, i.e. Pakistan's manufactured imports came out to be more labour intensive as compared to exports by a ratio of 0.76.

This was due to high weight of cotton textiles in exports, which is an agro based industry. Hence exclusion of intermediate delivery from agriculture could not represent the true labour intensity of exports. But when effect of agriculture were included, the paradox vanished and a strong support for Heckscher-Ohlin Theorem resulted. This time exports were more labour intensive as compared to imports by a factor of 1.14.

This question of relative intensities is not merely academic. It has important implications in the choice of trade policies that take into account the labour market. If exports are more labour intensive than import substitutes, a policy of export promotion with imports held fixed would generate a larger excess demand for labour than a policy of import substitution with exports held fixed, although the effects of both policies on the balance of payments could be the same. If the supply of labour in Pakistan were perfectly elastic at the going wage rate the policy of export promotion would simply absorb more labour under the above hypothesis, then the equivalent policy of import substitution. If the supply of labour were not perfectly elastic, in addition to the employment

effect we would have a redistribution of income more favourable to labour in the case of import substitution. If however the economy were already at full employment, all effects of trade policies will fall on the distribution of income and there would be no net employment effect. Any way effect of trade strategies on labour absorption and distribution of income is subject for a separate study.

Any way policy makers will have to keep in mind all the limitations and reservation of the paper while choosing any trade policy since it is just the beginning of the finding in this new field of employment implication of trade strategy.

Note

Another study is under way in the Institute on the same topic, but there are major differences between the two studies: firstly the present study is based on manufactured exports and import replacements only where as the other study deals with total trade i.e. inclusive of primary products. Secondly a discussion has been made at industry level in the present paper, while the other paper gives results only at a very aggregate level. Thirdly the other study uses labour output ratio for computing the labour intensity but our study is based on labour value added ratio as the relevant measure to us is employment per value added since value added is a more appropriate measure of the contribution of an industry. Fourthly the present study is limited to the finding of labour content and while the other study takes into consideration capital requirements too.

Appendix

(A) The input-output table for 1969-70 uses a 33 sector classification (see table A-I). Of these the first four (from 01 to 04) are agriculture sectors (Natural Resource Base). There are six home goods sectors (sector 26 and 29-33). The remaining 23 sectors are Hecksher-Samulson goods. The foot wear sector is not given in I-O matrix; since this sector constitute a considerable proportion of exports so labour coefficient for leather was applied to this sector for estimating the labour intensity of exports.

One of the reasons for taking labour per Rs. one million of value added was that for home goods sectors the value added data was available from national income accounts; but value of output for these sectors were not.

(B) Table A-II gives the description of competitive and non-competitive imports based on Pakistan Standard Industrial Classification and Pakistan Standard Trade Classification.

Appendix Table 1

- 01 Rice growing and processing
- 02 Wheat growing and processing
- 03 Cotton growing and ginning
04. All other Agriculture fishry and forestry
05. Sugar refining and gur making
06. Edible oils
07. Cigarettes, Bidi and other Tobacco products
08. Other food and drink
09. Cotton textiles
- 10 Other textiles
- 11 Paper and paper products
- 12 Printing and publishing
- 13 Leather and leather products
- 14 Rubber and Rubber products
- 15 Fertilizer
- 16 Industrial chemicals
- 17 Drugs and pharamaceuticals
- 18 Cement and concrete
- 19 Basic metals
- 20 Metal products
- 21 Electrical machinery
- 22 Non-electrical machinery
- 23 Motor vehicles
- 24 Other transport equipments
- 25 Wood Cork and furniture
- 26 constructions

27	Miscellaneous manufacture	Other Transport Equipment	304
28	Coal and petroleum products	Motor Vehicles	304
29	Electricity and gas	Sports and Athletic Goods, Toys	304
30	Transport	Instruments	304
31	Trade	Other Miscellaneous	304
32	Government	Other s.s.s. Mining Products	304
33	Services n.e.s.	and Refining of Tobacco	304

Paper and Printing	
Leather and Sewing Machines	
Rubber and Plastics	
Petroleum Products	
Industrial Machinery	
Iron and Steel	
Chemicals	
Electricity	

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Appendix Table II

--24--

COMPETING IMPORTS

Consumers Goods	Pakistan Standard Industrial Classification	Pakistan Standard Trade Classification
Sugar and Confectionary	3118+3119	061+062+0730
Edible & inedible oils and fats	3115	421+422+311+4312+2219
Tea and coffee	3121	074109+074105+074106, 07119, 071300
Food manufacturing n.e.s.	3111+3112+3113+3114+3116+3117+3122+3129	01+02+03+04+06+047+048+052+053+054+055+072 (ex. 0721)+09
Other beverages (Alcoholic & Non alcoholic)	313	111+112
Woolen Textiles	314	122
Spinning, Weaving and Finishing of Cotton Textiles	32011+32102+32061	6513+6514+652
Other Textiles (Silk, Wool and synthetic)	3204+32062	266+6511+6512+6515+6516+6517+6532+6537+6556
Footwear and made-up textiles	324+322+321	851 (except. 851011)+6123+841, 656, 6551, 6540
Wood, Cork and Furniture	331+332	241102 ()+241103+243+631+632+633+82 except (822014, 822105, 822106)
Drugs, Pharmaceutical and other Non-Industrial Chemicals	350, 352	541, 551, 553, 554, ()
Printing and Publishing	342	899311, 899312, 899901
		6422, 6423, 892
Intermediate Goods		
Paper Paper Products	341	641, 642, (-6422, -6423)
Leather and Leather Products	323	611, 612, 613, 8310, 8413, 8420
Rubber and Rubber Products	355, 35591	12, 2313, 2314, 621, 629, 8416,
Petroleum Products	353, 354, 3512	332, 341, 521
Industrial Chemicals	351,	51, 531, 532, 533, 561, 571, 581, 599, 4313
Investment and Related Goods		
Non-metallic Mineral Products	361, 362, 369	6612+6618+663+664+665+666+8122+8124
Basic Metal Industries	371, 372, 380, 381,	67, 68
Basic Metal Industries		
Machinery Except Electrical	382	69, 8121, 8123, 822104, 822105, 822106
Electrical Machinery	383	71
		72

Contd on Page 24A

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Other Transport Equipment	384	731, 733, 734, 735
Motor Vehicles		732
Sports and Athletic Goods, Toys	392, 3834, 3935	894
Instruments	3851, 3862, 38325, 3853, 3851, 3862, 3861	861 (+862*+863)
Other Miscellaneous	393, 394	891, 893, 864, 895, 896, 897, 899 (except 899301, 899311, 899312, 899901)
	(38325, 3933, 3936, 3937, 3949, 356, 3852, 3931, 3932, 3939, 3938)	
Other n.e.s. Ginning Presing and Bailing of Fabric	325	

Agriculture, Forestry and Fisheries

NON COMPETING IMPORTS

001, 041, 042, 043, 044, 045, 051, 0616, 0711 (exc. 071109), 0721, 074101 to 074106, 08.121.211.212, 221, 2311, 241, 242, 244, 251, 261, 262, 263, 264, 265, 267, 271, 291, 292, 411, 4312
273, 274, 275, 276, 281, 282, 283, 284, 285, 286, 321, 33, 6611, 6613,

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