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Kegional Current Input Output Tables for the Last and west Pakistan Lconomies 1962/63

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## Preface

The input-output tables which are presented in this report have their origin in our effort to revise for use in multisectoral programming models two previously constructed tables. A table for East Pakistan had been prepared at the Pakistan Institute of Development Economics by Joseph Stern, and a table for West Pakistan had been prepared in the Perspective Planning Section of the Planning Commission by Ghulam Rasul. Both these tables were for 1962/63. Though we originally thought these tables would suffice for our purposes with some aggregation and minor revisions, we eventually decided it would be necessary for us to do much new work. What has evolved are two new tables different enough from those of Stern and Rasul that we think a thorough write-up and explanation is necessitated.

Nonetheless, we wish to make clear that our debt to the work of Stern and Rasul is very large indeed. In many places we have adopted their results. Their access to certain unpublished materials made it possible for them to include information which would have been out of our reach. Further, both had done original work in certain areas which we were able to use.

Not only for their work, but also for their cooperation in explaining their work to us, we are indebted to Stern and Rasul. Stern had prepared a complete write up of his work /28/ and has been a faithful correspondent in answering our questions about it. Though Rasul has not prepared a write-up of his work, he has been extremely helpful by allowing us access to his work sheets and by giving us internal Planning Commission memoranda about the work.

Below, after some brief introductory comments, we explain our principal reasons for constructing the new tables rather than accepting the work of Stern and Rasul. In section 2 we explain our sector classification and accounting framework. In section 3 we explain our methods of estimating the components of the tables. In section 4 we compare the national accounting results of our work with the official national accounts and Stern and Rasul. In section 5 we present the tables.
A.R.K.

Dec. 26, 1967
A.M.


Regional Current Input-Output Tables for the East and West Pakistan Economies, 1962/63

1. Introduction
1.1. The Need for Regional Input Output Tables

In order to be operationally meaningful, a plan for Pakistan's economic development should be detailed -- i.e., should distinguish the major producing sectors and take explicit account of the intersectoral flows -- and should be regional -- i.e., should distinguish economic activity in the two major geographic regions and take explicit account of the interregional flows. To formulate a detailed and regional plan, the planning authorities need information about various types of intersectoral relationships and various kinds of disaggregated data for each of the two major regions. Of the chain of statistical information which is required, regional inputoutput tables constitute the most important link. The derjvation of the input-output tables is of fundamental importance in formulating Pakistan's plans because so much analytic work and other statistical work depends upon them.
1.2. Previous Regional Input-Output Tables for Pakistan

Recently, an input-output table for East Pakistan was prepared at the Pakistan Institute of Development Economics by Joseph Stern /28/, and a table for West Pakistan was prepared at the Planning Commission by Ghulam Rasul /27/. In the East Pakistan table a 62 sector classification is used, and in the West Pakistan table a 70 sector classifi-
-cation is used. Both tables are for the year 1962/63
and are in purchasers' prices. The year $1962 / 63$ is the most recent one for which regional Censuses of Manufacturing Industries (CMI's) /12,13/ are available.

Our work leans heavily upon that of Stern and Rasul (see Preface) whose tables we have used as a starting point. We, however, feel that the Stern and Rasul tables in their present form are inadequate for detailed regional planning. Their inadequacies derive from the following factors which prompted us to formulate new tables:
(a) Sector classification scheme. There are a number of important criticisms to be made of the sector classification scheme which Stern and Rasul adopted in their work, First, the large scale manufacturing activities reported in the CMI are classified into nearly 50 sectors, while all small scale manufacturing (with the exception of handloom and bidi in East Pakistan) is aggregated into a single sector called "small scale industries". Such a procedure makes the meaningful projection of demand impossible. To give an example, it is impossible to disiinguish between the demand for large mill processed grain, small mill processed grain and home pounded grain. But in the classification used by Stern and Rasul these are products of at least two sectors. The case is similar with numerous other important products.

* The only other regional input-output tables constructed for the Pakistan economy were prepared by one of the authors of this report for use in some multisectoral planning exercises/ $8,9 /$. These tables are in purchasers ${ }^{\text {f }}$ prices for the year 1959/6C and they distinguish only seven producing sectors. More disaggregation is required if planning is to be done in meaningful detail.


## 3

What is worse is that small scale activities of all different types are lumped together -- grain milling, handloom products, metal products, etc., etc.

A second weakness of the Stern-Rasul sector classification is the uneven emphasis placed upon CMI and non-CMI sectors. While the CMI sectors -- which contribute only about $5 \%$ and $10 \%$ of gross regional product in East and West, respectively -- are classified into about fifty productive groups, agriculture -- which contributes about $55 \%$ and $45 \%$ of gross regional product in East and Vest, respectively -is diviced into only four sectors in East and two sectors in West. Service sectors are also highly aggregated. It is true that some unevenness of emphasis is warranted by uneven quality and quantity of information, but we cannot agree that it should be pushed as far as has been done by Stern and Rasul. In their tables some sectors contribute less than one-tenth of one percent to gross regional product and have no claim to being dynamic export sectors or some such. Further, to outain the high degree of disaggregation which they did, Stern and Rasul had to rely upon data based on reports from a very small sample of firms in some cases. Coefficients so obtained would seem to be of little use in projection work. While some further aggregation of the CMI sectors seems in order, we think there is sufficient information available to allow addition of a few more agricultural and service sectors

A third difficulty with the classification schemes used by Stern and Rasul is that they are not the same in all respects. Some changes are required simply so that the two tables can be used together.
(b) Availability of New Information. Since the compilation of the Stern and Raslil tables certain new information has become available which can be used to add substantially to the quality of these tables. These new sources include: The final version of the East Pakistan CMI /12/; the Census of Electricity Undertakings 1962/63/22/; the Report of the Consultants to the IBRD on the Programme for the Development of Irrigation and Agriculture in West Pakistan $/ 7 /$; the report of the Board of Economic Enquiry on Cost of Production of Major Crops /2/; the Survey of Cottage Industries in East Pakistan /19/; the Survey of Salt Manuracturing Units in East Pakistan /20/.
(c) Methodological problems. There are a number of points where we felt incorrect methods had been employed. Some of these are: (i). Stern allocates rent paid for buildings by a producing sector as a current input from Ownership of dwellings sector (included in his services, n.e.s.). The more usual, and we think preferable, approach is to treat rent as a part of value adcied, all buildings being capital inputs to the producing sector. (ii) Rasul has shown no current inputs at all from Government Services or from Services, n.e.s. (iii) Stern and Rasul make the unnecessary assumption that all physical imports are noncompetitive and base their accounting procedures on this assumption. (iv) Most of the estimates of trade in services (international and interregional) seem to be based upon misconceptions. Fcr example, Stern seems to have included in his import of transport services the transport margin on imported goods. However, since imports are shown at c.i.f. their values already include this margin.

Finally, there were numerous minor errors in the tables, errors of no great methodological consequence, but which can only be found and eliminated through revision. No doubt our own work contains some such errors.

The above criticisms aside, our debt to Stern and Rasul is large, as we have tried to make clear in the preface. Preparation of large input-output tables must be viewed as a continuous process in which any new work uses previous efforts as a base. In this case, their work was a particularly important base for us since their tables and ours are for the same year. We have attempted to make it clear below those places where we were especially dependent upon their work.
2. Sector Classification and Accounting Framework
2.1. Description of the sectors

We use a 35-sector classification of the economy
in constructing the input-output tables. These 35 -sectors are listed in Table 1.

Each of the first five sectors includes growing, harvesting and processing of a principal crop. An alternative wouid have been to make the agricultural and processing parts of each of these into separate sectors and route the agricultural produce to final and intermediate demand through the corresponding processing sectors. The advantage claimed for the alternative is that it would enable us to distinguish between value added in agricultural and manufacturing activities so that we would be able to take into account the differences in the savings behaviour and tax potential of the two types of activities. In view of the fact that

## Table 1 Sector Classification

1. Rice Growing and Processing
2. Wheat Growing and Processing
3. Jute Growing and Baling
4. Cotson Growing and Ginning
5. Tea Growing and Processing
6. All Other Agriculture, Forestry and Fishery
7. Sugar Refining and Gur Making
8. Edible Oils
9. Cigazettes, Bidi and Other Tobacco Products
10. Other Food and Drink
11. Cotton TextiJes
12. Jute Textiles
13. Other Textiles
14. Paper and Painting
15. Leather and Leather Products
16. Rubbe: anċ Rubber Products
17. Fertilizer
18. Other Chemicals
19. Cement, Concrete and Bricks
20. Basic Ketal.s
21. Metal Products
22. Machinery
23. Transpore Ecuipment
24. Wood, Cork and Furniture
25. Construction of Residential Houses
26. Construction of Non-Residential Buildings
27. All Other Conseruction
28. Miscellaneous Manufacture
29. Coal and Petroleum Products
30. Electricity and Gas
31. Transport
32. Trade
33. Ownership of Dwellings
34. Government*
35. Services, n.e.s.
much of the processing of grains is done by the agriculturists themselves, this claim does not, however, seem aumissible. Lumping home processing of grains with the agricultural part of each activity wculd again be objectionable because perfectly substitutable products (homepounded and milled rice, for example) would belong to separate sectors and make projection of demand meaningless. The facts that for these commodities the entire agricultural crop undergoes processing, that value-added in processing these crops is small and that there is (or at least we are forced to assume that there is) some fixed relation between value-added in growing and value-added in processing make our method more advantageous than the alternative. Finally, our method helps us economise on the number of sectors by five without any damage to the procedure of estimating demand.

The sixth sector, All Other Agriculture, is a rather heterogenous sector of residual category $Y$ it includes non-wheat-rice-tea food crops and their processing; growing of sugarcane, fruits and vegetables; livestock products, forestry, fishery, non-cotton oilseeds and tobacco including its minor processing. The main reason we cannot separate such important sectors as livestock products (which supplies most of the protein and hence may be an important target for food planning) is the non-availability of information.

It is assumed that agricultural activities of sectors 01 to 06 include such ancillary activities as trading and transporting crops to rural processing units (farmers themselves in many cases) and to rural consumers. Thus agriculture itself provides most of the trade and transport

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it requires. On the amount sold in the urban market and the amount exported, however, trade and transport margins have been charged. Similarly such margins are charged to the cash crops sold to the large-scale manufacturers. This procedure allows us to avoid the problem of astimating and imputing value to the transport services provided by the bullock carts and small country boats and services provided by the farmers themselves as traders services about which little information is available -- without affecting the realism of the actual working of the system. To avoid double-counting, the value of these services are excluded from transport and trade sectors.
The next four sectors, sectors 07 to 10, are food processing industries. There are special considerations why we do not vertically integrate these sectors with the growing of their corresponding agricultural inputs. Sugar is an important import-substitute and it adds significant value to sugarcane; also, important questions have been raised regarding the efficiency of the sugar industry. Cigarette manufacturing uses a large fraction of imported tobacco so that its vertical integration with tobacco growing would be difficult. Moreover cigarette is an important source of revenue for the Government and a user of imported raw-material. Edible oils is an important user of imported inputs.
Sector 11 to 20 and \(2 \varepsilon\) and 29 produce manufactured consumption and intermediate goods. Titles explain the contents of these sectors reasonably well. It should be emphasized that a11 manufacturing sectors (and the processing of crops) include large scale, small scale and cottage activities. Any projection work based on these tables requires an a priori decision regarding the incremental importance of each part of each sector. (See section 5 below). In section 5 , we provide information about the input structures of large, small and cottage production separately. This means that in effect we have asgregated the three types of activities only in the rows and not in columns. The justification of this procedure
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Sector 11 to 20 and $2 \varepsilon$ and 29 produce manufactured consumption and intermediate goods. Titles explain the contents of these sectors reasonably well. It should be emphasized that all manufacturing sectors (and the processing of crops) include large scale, small scale and cottage activities. Any projection work based on these tables requires an a priori decision regarding the incremental importance of each part of each sector. (See section 5 below). In section 5, we provide information about the input structures of large, small and cottage production separately. This means that in effect we have acgregated the three types of activities only in the rows and not in columns. The justification of this procedure
is that by aggregating large, small and cottage products of the same sector in rows we avoid the arbitrariness in the individual inputs of the substitutes when all that is really (known is that in each use a given quantity of all taken /together is required. It also allows us to circumvent the difficulties imposed by the fact that neither the CMI nor the other sources of data on the input structures of different sectors distinguish purchases of inputs from large scale, small scale and cottage producers. On the other hand, aggregation of the three types of activities in columns would be undesirable because of the differences in their input structures.

Mining and quarrying activities have been vertically integrated with the manufacturing sectors to which they deliver. We felt that this procedure was preferable to aggregating together very different mining activities. Since mining and quarrying are not very important in Pakistan (trivial in East Pakistan) this has significant effect only upon the West Pakistan cement, concrete and brick sector.

Seven of our sectors, 21 to 27, supply fixed capital.
Three of them, construction of residential housing, construction of other buildings and all other construction, supply construction capital while the other four capitalsupplying sertors provide plant, machinery, transport equipment, office equipment, furnitures and fixtures. The disaggregation of the construction sector seems useful in view of the considerable differences in the input structures and destination of supplies of these products. Construction of residential housing supplies fixed capital to only one sector: housing. Jonstruction of non-residential buildings supplies fixed capital to all sectors except housing. All other (construction supplies to agriculture (dams and barrages), electivicity (hydro ple?1ts) and transport (roads, airports, railways, and ports).

The contents of the remaining sectors -- transoort, trade, and the services -- are sufficiently expleined by their titles. It need only be noted that postal and telegraph services are included in government services.
2.2. Accounting framework

In order to formulate the current flow matrix we follow the standard input-output accounting framework which is described by the following two equations:
(1) $X_{i}+M_{i}+M_{i}=\sum_{j}^{\sum} X_{i j}+c_{i}+G_{i}+\left(I_{i}+S_{i}\right)+\left(E_{i}+E_{i}\right)$
(2) $X_{j}=\sum_{i}^{n} x_{i j}+T_{j}+V_{j}$
where for sector $i$ in each region:
$X_{i}=$ Production
$M_{i}=$ Import from abroad
$M^{\top}=$ Import from the other region
$X_{i-j}=$ Amount of $i$ used as current input by sector $j$
$C_{i}=$ Consumption by households
$G_{i}=$ Public consumption
$I_{i}=$ Gross fixed investment by public and private sectors
$S_{i}=$ Stock addition
$\mathrm{E}_{\mathrm{i}}=$ Export abroad
$E_{i}^{!}=$Export to the other region
$T_{;}=$Indirect tax less subsidies on output in sector $j$
$V_{j}=$ Gross value added in sector $j$.
The treatment of imports as negative final demand is
purely for accounting purpose. This by no means implies that
we want to treat all imports as competitive in forecasting exercises. In fact, at a later stage, in our work, we shall distinguish between competitive and non-competitive imports and relate non-competitive imports to the using sectors by fixedcoefficients. (Not part of this report).

Public consumption consists only of government services while purchases by government are shown as current inputs into government services sector. Thus in the table we show only one consumption sector. All components of this sector except the penultimate one denote private consumption while the penultimate component denotes public consumption.

### 2.3. Valuation of transactions

In recording the transactions in an input-output table one can use either producers' price or purchasers' price. In the producers' price system, each industry is assumed to be paying the transportation cosss and trade margins on all its purchases of inputs, and the value of all these services together form the trade and transport input into that industry. In a purchasers' price system, each industry is assumed to pay the trade and transport costs on all its sales of output, and the value of these services together form the trade and transport input into that industry.

From the theoretical standpoint, the producers' price method seems to have an edge over the purchasers' price次
method. From the standpoint of the availability of data

[^0]and the required amount of computation, the balance of relative advantage is quite different. The CMI, the Small Scale and the Cottage Industries Surveys, which are our basic sources of data with respect to the input structure of the industries, state the values of inputs at purchasers' price. In order to record the transactions at producers' price, it would be necessary to separate transportation costs, and trade margins on the purchases of the inputs as shown in the CMI and the other Surveys. No information is, however, available about these margins in Pakistan. The a oove considerations dictated our decision to prepare the table at purchasers' price.
2.4 Valuation of imports and exports

The decision to formulate the current flow matrix at purchasers' price means that all the entries in the accounting equations (1) and (2), including the foreign trade entriee, must be made at purchasers' price. Exports abroad and imports from abroad are stated in CSO's Foreign Tracie Statistics /23a/ respectively at f.O.b. and c.i.f. prices. For our purpose, it is satisfactory to treat the f.o.b. price as the relevant purchasers' price of exports and show the exports of shipping services and insurance separately at 'the relevant places. The purchasers' price of imports is, however, higher than the c.i.f. price by the amount of import duty and sales tax and the trade margin and transportation costs on imports (i.e., such costs incurred in taking the imports to its various users within the region from the port of entry). For the purpose of our table, it is therefore necessary to transform the imports into purchasers' price by adding to the c.i.f. values the above margins.

Note that the import of merchandise include the cost of international shipping and insurance required for such imports. Thus in the import of transport services and insurance we show only the 'direct' imports such as those services used by travelling people.

This may be the appropriate place to explain an unusual sector of final demand in our table, viz., inputs in the import of wheat. The vertical aggregation of the wheat sector means that we cannot show the imported unmilled wheat as negative final demand. The amount shown as import of wheat is actually the valie at purchasers' price of the imported wheat after it is processed. Thus we must allocate to import activity not only domestic trade and transport input but also other inputs required to process wheat. (The same procedure would apply to imported unorocessed rice, cotton, jute or tea if there were any).

Interregional imports are also recorded at purchasers price, trade and transport margins being added to the c.i.f. price. It would be appropriate to show interregional exports at f.o.b. price. But the CSO data are c.i.f. at the port of entry of the importing region. Hence we show them at c.i.f. price and charge the interregional transport cost (and also insurance on shipping) to the exporting, i.e., the producing region. This also explains why we do not separately show interregional trade in transport services.
3. Estimation of Sectoral Outputs and Intersectoral Flows

### 3.1. Definition

The gross output of a sector is the total value at purchasers' prices of final goods and services produced by that sector. A good or service is "final" if any of it is sold outside the sector. Goods or services which are entirely consumed in a sector are not final goods. Cotton yarn, for example, is a final product of the cotton textile sector since much of it is exported and sold to other producing sectors. Therefore, all cotton yarn, including that internally consumed by the cotton textile sector must be recorded as output. Paddy, on the other hand, is not a final product in our sector classification since it is delivered entirely to rice processing and sold elsewhere only as rice.

The value of current inputs shown are the values of the amounts actually used up in the production process during the given time interval, i.e., the year 1962/63. Goods purchased and held as stocks are not included as current inputs. Goods purchased in a previous time period, held as stocks, and used for production in 1962/63 are counted as current inputs.

Two points should be noted. First, we have not included rent as current input to producing sectors and have no sector producing rental services of non-residential buildings. All non-residential buildings are treated as capital in the relevant producing sectors. Second, the only parts of depreciation which we have included as current inputs are purchases of spare parts and repair and maintenance of
houses. Other depreciation charges are tieated as replacement and hence are part of gross investment. (Alternatives would be conceptually desirable but empirically more difficult.)
3.2. Some Special Problems of Input Estimation

In general we took a column by column approach to the estimation of the components of the input-output tables. That is, we estimated the output of a particular sector and then the inputs to that sector. When this had been done for every sector, the row distribution of any particular sector could automatically be obtained. For certain inputs, however, it was more desirable to approach the estimation on a row basis. This approach was important for the following inputs:

1. Fertilizers and pesticiaes the regional absorption of which were distributed among agricultural sectors on the basis of acreage shares in East Pakistan and on the basis of acreage of each crop covered and intensity of use for West Pakistan (information obtained from the Bank Consultants Report /7/).
2. Electricity was distributed on the basis of information in the Census of Electricity Undertakings /22/. Since this data was not as disapgregated as our sector classification, however, it was necessary to use the CNI's to determine relative shares of different manufacturing sectors; distribution anong agricultural sectors was based on relative values of output. (For East Pakistan total electricity used in manufacturing was roughly the same in the CMI and in the Census of Electricity

Production: For West Pakistan the latter source, which we accepted, showed much larger use of electricity than did the CMI.)
3. Banking and insurance services, inputs from the services n.e.s. sector, were allocated on the basis of the value of accounts held by each sector. These data were obtained from the State Bank Statistics on Scheduled Banks /i7/. Again, it was necessary to use the relative proportions of the CMI and some simple assumptions for agriculture to obtain the full detail we required.
4. Postal and telegraph services, inputs from the government services sector, were distributed according to Stern's figures in East Pakistan and on the basis of the CNI for West Pakistan manufacturing sectors. For nonmanufacturing sectors we used an ad hoc procedure based roughly on Stern's East Pakistan allocation.
5. Jute textiles available in West Pakistan were in greater supply than could be accounted for by our original estimates of inputs from this sector or by possible stock changes. Post hoc adjustments, on a relatively arbitrary basis, were undertaken for this row.
3.3. Agriculture
3.3.1.Agricultural Output

The final outputs of the first five agriculture sectors are the processed (milled, baled, ginned, etc.) crops. Output estimation, however, involved two steps, the first of which was the estimation of the unprocessed outoput. Since the entire unprocessed output is delivered
to processing (a delivery not shown in the tables because the unprocessed crop is not a final output), we were able to use that delivery as a basis for estimating the output of the processed crop.

The producers' price values of crop outputs were available from unpublished CSO data, and volume data were available in the CSO Yearbook./23/. We used the estimates of the Report of the National Income Commission (NIC) /25/ to determine what shares of the non-cash crop were marketed, and for West Pakistan assumed the marketed share to be delivered to mills (large and small) while the remainder was home processed. In East Pakistan an important part of marketed grain is home processed, so marketed and milled shares could not be taken as equal. However, for East Pakistan, due primarily to the availability of the Small Industries Survey $/ 1 \varepsilon /$, it was possible to estimate delivery to mills directly. For marketed crops, trade and transport margins were allowed on the basis of available price data; however, for non-cash crops the margin was recorded as self provided, i.e., the value of the marketed share of output was raised. For West Pakistan deliveries to large scale processing and the output of large scale processing were determined in the same manner as large scale manufacturing industries (see below), and the residual of the marketed share of the crop was delivered to small scale establishments. For East Pakistan information was available from the Small Industries Survey $/ 18 /$ which allowed direct computation of output of small scale processing on the basis of crop delivery. However, for West Pakistan we were forced
to assume that the ratio of crop input to processed output was the same for large and small scale operations. Value added was imputed to home pounding of grains as the difference between growers' price of the crop and the ex-factory price of tise milled grain.

In the sector all other agriculture, estimation of cron values was accomplished essentially as that described above. Output values for other parts of the sector were computed from the national accounts on the basis of the information in the NIC Report. It was, however, necessary to add to output the value of bullock services used in crop production as these are excluded from the national accounts. Trade and transport margins were computed from the relevant price data and information on marketed shares in the NIC Report.
3.3.2. Inputs to Agriculture

Since the agricultural sectors include both crop growing and processing, inputs to both activities are shown. Inputs to large scale and small scale processing were determined in the same manner as inputs to manufacturing activity (see below). No inouts were allotted to cottage processing.

The major inputs to crop growing were the following: seed, animal services, animal feed, manure, fertilizer, pesticides, repair of implements, trade and transport.

Seed inputs were estimated on the basis of seed rates used in the NIC Report. For East Pakistan animal services per acre for various crops were obtained from
the Master Survey of Agriculture and East Jakistan WAPDA sources as quoted by Stern. For West Pakistan animal service input rates were obtained from the Board of Economic Enquiry Report /2/. Animal feed (an input to all other agriculture) is taken as $90 \%$ of rice and wheat by-products and, in East Pakistan, all fodder crops. In West Pakistan neither the output of fodder crops nor the input of fodder crops to all other agriculture have been shown. In East Pakistan dung inputs were computed by making a dung output estimate, determining the household use of dung from the National Sample Survey / $16 /$, and allocating the residual to crops on the basis of acreage shares. For West Pakistan dung input rates were computed for various crops from the Board of Economic Enquiry Report.

Fertilizer and pesticide input determination has been explained above. One comment is in oraer, however. For these inputs purchasers' price is defined as the actual price paid plus the subsidy, and the subsidy is shown as a direct subsidy (negative tax) to the agricultural sectors.

Repair and maintenance of agricultural implements, a delivery from the machinery sector, is estimated by using Indian (price corrected) data on value of implements per acre $/ 5$ / and assuming repair and maintenance charges are five percent of such value.

The general methodology for estimating trade and transport charges has been explained elsewhere. In addition to price data from the Yearbook, useful data were contained in the NIC Report.
3.4. Large Scale Manufacturing

3-4.1.Large Scale Manufacturing Output
Sectoral outputs shown in the CrI's are in most
cases understatements of actual sectoral outputs because the Censuses suffer from serious undercoverage. In estimating actual output of large scale manufacturing sectors in East Pakistan we relied upon quantitative data in the CSO Bulletin and reports on undercoverage in the CMI to correct CMI output figures for most important sectors. For some of the important sectors and for most of the less significant sectors, we chose to accept Stern's estimate. For West Pakistan we relied almost entirely upon the work done by Rasul; an important exception is the cotton textiles industry where we corrected the CMI output figure on the basis of quantitative data in the CSO Bulletin. Rasul's corrections of the CMI relied upon the new (regional) index of industrial production -- as did some of Stern's estimates which we accepted -- and upon quantitative data from the Central Board of Revenue.
3.4.2. Inputs to Large Scale Manufacturing

For East Pakistan the CMI provides data on the value, and often of the quantity, of raw materials and other inputs used in the production process. Stern had used a preliminary version of the CMI and, though our results are the same as his in many cases, there are also many differences. We did find Stern's work useful in determining the composition of the often large "other
inputs" category. The 1959/60 CMI (which is more detailed) was also useful in this respect. In East Pakistan self generation of electricity is quite important for large scale units. Data in the CMI allowed us to distinguish self generated electricity and fuels used for such generation in each sector. Our procedure was to exclude the latter from the list of inputs and record the self generated electricity as an input from the electricity sector. (This procedure was not adonted in West Pakistan since self generation is less important and since our data were insufficient.) Though inputs are shown at purchasers' prices in the CMI, outputs are shown at producers' prices and it was necessary to compute trade and transport margins by comparing ex-mill prices (from the CMI) with wholesale and retail prices (mainly from the Yearbook). In determining the share of transport in the total margin we relied upon Stern.

For inputs to CMI industries in West Pakistan we generally relied upon Rasul's work, since he had access to the unpublished West Pakistan CMI.However, Rasul has shown no service inputs, his electricity input estimates seem to be an underestimate (on the basis of the census of

Electricity Utilization), and his total absorption of jute textiles is too small. Our methods of estimating inputs from these sectors are explained above in Section 3.2.
3.5 Small Scale and Cottage Manufacturing
3.5.1. Output of Small Scale and Cottage Manufacturing

Our method of determining output of small scale and cottage crop processing has been explained above. A similar
method was applied to cottage gur making, i.e., sugar cane not delivered to large scale refineries was converted to gur on the basis of a 10:1 weight ratio and prices were obtained from the Yearbook.
For all other sectors in East Pakistan Surveys data were available (Small Scale, Cottage, Salt, Handloom, Bidi) which allowed us to directly obtain output of small and cottage industries. For West Pakistan the only survey data available was that for Urban areas /21/ and the resulting high degree of undercoverage made this of very little use. Estimates of output had been made in the Perspective Planning Section of the Planning Commission (unpublishcd) which we were able to use for small scale edible oils, tobacco products, leather, bricks, transport equipment (repair services), and wood, cork, cork and furniture. These estimates were based upon estimating availability of major inputs not elsewhere used and applying a correction factor, upon estimates of demand unfulfilled by large scale production, and, in some cases, upon special sources, We have made our own estimate of small scale cotton textile output on the

```
* The last two of which are contained as part of the CMI.
** It should be noted here that we are unaware of the extent of overlap or gap between the 5 (1) factories covered by the CMI (employing 10 to 20 and using power or employing 10 or more and using no power) and the Small Industries (employing not more than 50 and having total assets valued not more than 250 thousand rupees). While the former is defined in terms of employment, in the case of the latter effective criterion seems to be the size of assets. Considering, however, the fact that average employment in the SIS factories is about 8.8, there seems to be little gap if any, and not too much overlap if at all.
basis of yarn available for such use. The relationship between output of small scale metal products and small scale cotton products was determined for urban areas from Urban Surveys and, assuming this relationship held throughout the region, we determined an output figure for small scale metal products. For other manufacturing sectors in West Pakistan no small scale activity was allowed for. No doubt some undercoverage exists in our work.
3.5.2. Inputs to Small Scale and Cottage Manufacturing

In East Pakistan the available survey data showed only the total value of inputs used. To distribute this total among supplying sectors we relied mainly upon the work done by persons in the East Pakistan Planning Department. They had drawn samples from the survey questionnaires and had made an analysis of inputs by sector of origin. However, in some cases their work left a large residual, and it was necessary to use an ad hoc. procedure based upon the structure of the corresponding large scale sector in order to determine inputs.

For West Pakistan we were forced to follow a very crude procedure to determine inputs to small and cottage activities. For gur, edible oils, leather and wood, cork, and furniture we allowed only for the single dominant input. In other sectors we allowed for other significant inouts on the basis of the large scale coefficients and some rough guesses.

/4/ provided us with the basic data for estimating output of the three construction sectors. It was possible to divide his investment components into non-construction and our three categories of construction activity. In each construction sector we added an allowance for repair and maintenance expenditure not covered by Elshout. In the other construction sector we added an allowance for those non-development expenditures not included in elshout's data.

For West Pakistan a post-hoc increase of these figures was nccessary because of the existence of a large residual of basic metals and cement. Rasul had allocated this residual to consumption arguing that they would represent defense construction not included in Elshout's figures (though he did not, to our knowledge, have any direct estimates of defense construction). We felt it would be better to allocate most of these residuals to other buildings and other construction and increase the output of these sectors accordingly.

\subsection*{3.6.2. Inputs to Construction}

From the Housing Census /11/ we were able to estimate the composition of dwellings by type of structure, and with IVIC Report data we made a rough estimate of the percent of total housing expenditure in each type of structure. Similarly, from the Elshout data it was possible to break down other buildings and other construction into
several types of structures and projects. The NIC Report contains information on costs of inputs for various types of structures and projects. These and some ad hoc assumptions, e.g. \(10 \%\) of rice and wheat by-products are used in rural construction, yielded for us an input structure of each construction sector.
3.7 Electricity and Gas
3.7.1. Output of Electricity and Gas

The value of output of electricity in the two
rugions was obtained from the Census of Electricity
Undertakings. Output includes all eleutricity generated, whether sold, internally consumed, or lost in transmission. For East Pakistan value of gas output was obtained from the CMI. For West Pakistan we obtained the quantity of gas production from the CSO Bulletin and applied the price paid by the electricity sector, which used about \(30 \%\) of gas produced in 1962/63.
3.7.2.Inputs to Electricity and Gas

Inputs to Electricity Production were obtained from the Census of Electricity Undertakings. Inputs to gas production in East Pakistan were obtained from the CMI. We had no information on current inputs to gas production in West Pakistan and made allowance only for an input of spare parts. The large size of the diagonals in this sector should be noted. It includes delivery of gas to electricity, self utilization of electricity by the electricity sector, and electricity lost in transmission. We would expect these figures to be rather unstable.

\subsection*{3.8. Transport}

Outputs of and inputs to the transport sectors were obtained from Stern and Rasul. For East Pakistan, however, it was necessary to exclude transport services used to transport unprocessed crops to processing units since we included this in our agricultural sectors. Also, it was necessary to eliminate inputs used for such transport services. For West Pakistan, it was necessary to eliminate post and telegraph services since Rasul had included them in transport while we have included them in the government services sector.

\subsection*{3.9. Trade}

The output of the trade sector is determined by adding up all the trade margins including those on imports. Inputs to the trade sector in East Pakistan were based on a Dacca University survey of retail trade \(/ 3 /\). For West Pakistan we used Rasul's input of transport services, the East Pakistan rate of input of paper and printing, and the input of electricity and other services as explained in section 3.2 .
3.10. Housing
3.10.1.Output of Housing Services

The output of housing services was determined in a very simple manner, and was computed for urban and rural areas separately. From the Census /11/ we determined urban and rural population (since the Census is for 1961 it was necessary to extrapolate to \(1962 / 63\) ) and using family sizes shown in the Quarterly Survey of Current Economic
Condition \(/ 15 /\) we derived the number of households in
each area of each region. From the Quarterly Survey of
Current Economic Conditions we obtained average rent paid by (or imputed to) an average household for each area of each region. The number of households multiplied by the average rent yields total output of housing services per area
3.10.2. Inputs to Housing Services

The only current inputs to the housing sector are repair and maintenance, a delivery from the const ruction sector, and banking and insurance services. For rural areas we determined repair and maintenance costs from the National Sample Survey, (Third Round) /16/, and from urban areas we accepted the NIC Report's (arbitrary) estimate of repair and maintenance costs as \(10 \%\) of rent. Determination of the input of banking and insurance inputs have been explainєd.
3.11. Government Services and Services n.e.s.
3.11.1.Output of Services

Estimation of the output of these services proceeded from the value added data in the national accounts. It was, however, necessary to distribute between the two regions central government services and banking and insurance. The regional allocation of the former was obtained from Stern who had allocated Central government expenditures according to where they were incurred. Banking and insurance regional allocation was also obtained from Stern who had studied the location of banking activity
i.e. where accounts were held and loans issued. Finally, it was necessary to add post and telegraph services which had not been inc?. uded under government in the national accounts. This was accomplished on the basis of Budget/24/ data。
3.11.2.Inputs to Services

The input structure for these service sectors in both regions was taken from Stern with the exception of the items which were row allocated.

\subsection*{3.12. Final Demand}
3.12.1.Foreign and Regional Trade

The general methodology of making foreign and regional trade entries has been outlined above (section 2:4). Here we mention the sources of data.

Interregional trade data are shown in the CSO Yearbook; it was necessary to regroup these according to our sector.classification. Foreign commodity trade data were obtained from official CSO sources \(/ 6,23,23 a /\), and trade in services data were obtained from the balance of payments statistics /14/.

\footnotetext{
* The allocation of Central Government expenditure was \(72.5 \%\) West and \(22.5 \%\) East. The allocation of banking and insurance was \(75 \%\) West and \(25 \%\) East.
**It should be noted that those data originally
published by the CSO as West Pakistan's 1962/63
foreign exports have since been significantly revised. Our figures are based upon the revised data.
}

Taxes and import duties on imported goods were obtained from unpublished data of the Perspective Planning Section of the Planning Commission, data used in constructing the Rasul table. Though these data were for West Pakistan, we were able to use the rates for East Pakistan as well since taxes and duties are the same for both regions. We also relied partly upon data provided by Lewis and Qureshi /10/.

Transport margins were determined on the basis of similar margins for domestic products. Trade margins were estimated by comparing landed cost and market price information which is available in publications of the Institute of Development Economics /1, 26/..For West Pakistan we were able to adopt Rasul's margin estimates in many cases.

\subsection*{3.12.2. Consumption, Investment and Stock Changes}

Having estimated outputs, intersectoral deliveries, exports and imports, we are left with a residual for each sector which can be distributed among consumption, investment and stock changes. We have distinguished stock changes as a separate item only in those few cases where we have independent information or when a residual can be explained only as a stock change. Therefore, most of the commodity deliveries to consumption and investment include an element of stock change.

There are only four sectors which deliver to both consumption and investment and for which, therefore, a problem of distributing the residual exists. The four sectors are machinery, transport equipment, metal products
and wood, cork, furniture. For these sectors we have adopted the following procedure, which must be viswed as rather rough
a) For East Pakistan machinery and transport equipment the deliveries to investment are determined from Elshout with the addition of an allowance for traditional implements in agriculture. For West Pakistan machinery and transport equipment we have allocated \(80 \%\) of the residual to investment and the remainder to consumption. This division is arbitrary.
b) For East Pakistan the sum of metal products and wood, cork, furniture delivered to investment is determined from the Elshout data and divided about 50:50 between the two. For West Pakistan metal products and wood, cork, furniture deliveries to investment are together taken as Rs. 35 million, with the former taken as ks. 20 million and the latter as Rs. 15 million. These are guesses based upon a rough idea of the relationship of these items to other components of investment.
4. Comparison with National Accounts
4.1.Gross Regional Products

In Tables 2 and 3 gross regional products at factor cost by sector of origin are shown for East and West Pakistan respectively. The estimates obtained from

\footnotetext{
* We were not able to use the Elshout data for West Pakistan since those estimates of machinery and transport equipment in investment seem to have been based on very different estimates of total availability than we have derived in the input-output table.
*** See Khan and MacEwan /8a/.
}

\section*{TABLE 2}

EAST PAKISTAN 19:62/63 GROSS REGIONAL PRODUCT BY SECTOR OF ORIGIN AT FACTOR COST

Agriculture
Manufacturing and Mining
Large
Small \& Cottage
Electricity \& Gas
Construction
Transport
Trade
Government
Housing
Services n.e.s.

Total

* Large and small does not add to total because of mining.
** Total is not sum of sectors since certain items are not regionally allocated. We have allocated according to our method to obtain the total.

TABLE 3
WEST PAKISTAN 1062/63 GROSS REGIONAL PRODUCT BY SECTOR OF ORIGIN A'I FACTOR CUST

Agriculture
Manufacturing and Mining
Large
Small
Electricity and Gas
Construction
Transport
Trade
Government
Housing
Services n.e.s.

Total
\begin{tabular}{ccc} 
Khan \& MacEwan & Rasul & NIC Report \\
8574 & 8750 & 8565 \\
2294 & \(3123^{*}\) & \(2745^{*}\) \\
1579 & 1992 & 1662 \\
715 & 1020 & 981 \\
254 & 199 & 127 \\
1566 & 890 & 739 \\
1187 & 1203 & 1140 \\
2655 & 3292 & 2523 \\
\(1199)\) & & 502 \\
\(804)\) & 3793 & 953 \\
\(1878)\) & & 1640 \\
20411 & 21250 & \(19917^{\text {an }}\)
\end{tabular}

\footnotetext{
* Large and small does not add to total because of mining.
** Total is not sum of sectors since certain items are not regionally allocated. We have allocated according to our method to obtain the total.
}
our input-output tables are shown along with the estimates of the Central Statistical Office (CSO) and the estimates of Stern and Rasul. The CSO does not allocate between the regions central government expenditure, banking and insurance and air transport. To make the total regional products of the CSO comparable with ours we have added shares of these items to the totals for each region according to the metho \(\alpha\) of allocation we used in constructing our tables.

For East Pakistan the three estimates of gross regional product -- ours, Stern's and the CSO's -- are quite close to one another, ours being about \(2 \%\) larger than each of the others. For West Pakistan the discrepancy among the estimates is greater. Our estimate is fairly close to the CSO's, ours being about \(2.5 \%\) larger. But Rasul's estimate of gross regional product for West Pakistan is \(6.7 \%\) larger than that of the CSO. In both regions differences in estimates of value added for certain sectors are quite large. In the next sections we will take up the differences in each region sector by sector.

\subsection*{4.2. East Pakistan Accounts}

In comparing our estimates of value added in agriculture with Stern's and the CSO's, it should be recalled that we include processing activities and the bye-products which are not included in their estimates. When these
* CSO data is obtained from the NIC Report /20/.
** We advise against using these data for a direct computation of disparity since we have undercovered West Pakistan small scale and cottage industry. *** Stern does make some allowance for bye-products.
differences of sectoral content are allowed for, our estimate of sectoral value added is quite close to that of Stern, and the estimate of the CSO is slightly larger. We think that the larger estimate of the CSO may be the result of an undercoverage of inputs to agriculture; without using a systematic input output approach they are prone to such errors. It should also be noted that our intraagriculture distribution of value added is much different than that of the CSO since they do not allow for many intraagricultural deliveries. This could be an important difference when appraising the effect of agricultural development policies upon national income.

The difference among the three estimates of value added in large scale manufacturing is partly a result of different estimates of the degree of undercoverage of the CMI. Also, the following are important reasons why our value added is less than Stern's and why it should be less than the CSO's: we show self-generated electricity (most important in the paper industry) as an input from the electricity sector and allocate value added in selfgeneration to that sector; we include processing of rice, wheat, jute, cotton and tea in the agriculture sectors; we allocate the fertilizer subsidy to agriculture while Stern has allocated it to the fertilizer sector. In view of these factors we would expect that CSO estimate to be larger than ours. That it is smaller may be explained by their insufficiet methods of estimating undercoverage of the CMI.

With respect to the differences in small scale manufacturing, our estimates have been based upon a sector
by sector analysis and upon the most complete data yet
available. Furthermore, we heve been able to make
allowance for cottage manufacturing which Stern has excluded. We are not surprised that our estimate is very different from that of the CSO since their estimat es are based upon a very rough technique, the so called "income nethod".

That our estimate of value added in electricity and gas is larger than Stern's and the CSO's is quite simply explained by the fact that we have included in this sector electricity self-generated by manufacturing units. As to the differences in construction estimates we can only refer to the Elshout data /4/ which was the basis of our estimate. We think these were the most comprehensive data available. In the transport sector our estimate is smaller than the others because we have not included bullock carts and country boats (see above for justification). Trade sectors estimates differ because of the different estimates of margins all along the way; we will not go into detail here.

In the service sectors the difference between our estimates and the CSO's is that they do not allocate

Central Government expenditures and banking and insurance between the regions. Stern and we have followed the same procedure in making this allocation. Gross value-added in housing is \(61 \%\) higher in CSO than in our estimates. But we treat repair and maintenance as current inputs while CSO's gross value added includes them. We should compare our estimates for this sector with CSO's net value-added which excludes repair and maintenance. CSO's net value added is only about \(16 \%\) higher than ours. This difference must be
attributed to their use of different source of rent data and different method of allowing for repair and maintenance.
4.3. West Pakistan Accounts

If we were to eliminate agricultural processing, production of bye-products, and transport of grains to processing centres from our agricultural sectors, our estimate of value added/would be a good deal lower than that of Rasul and slightly lower than that of the CSO. The difference is explained, we think, by our more thorough coverage of inputs, especially intra-agricultural inputs. The same comment made with regard to East Pakistan -- i.e. that the CSO misstates intra-agricultural allocation \(u f\) value added -- applies in West also.

The difference between our estimate of value added in large scale manufacturing and the CSO's estimate is explained by our inclusion of certain agricultural processing in the agricultural sector. However, the large difference between our large scale manufacturing figure and Rasul's requires further explanation. We think Rasul's estimate is an over-statement because he makes no allowance for service inputs, he understates electricity inputs, and he overestimates value added in cotton textiles. The overestimation of value added in cotton textiles seems to be the result of counting yarn as an output but not showing sufficient internal delivery of yarn.

We have somewhat less faith in the accuracy of our estimate of value added in small scale manufacturing in West Pakistan. We have overlooked, because of lack of data, small scale activity in certain sectors entirely. While

Rasul obtains a larger figure, this is, we think, more because he has understated inputs rather than sufficiently covered outputs. The CSO estimate stands on very weak ground. While our figure is questionable, we think our method of estimating small scale activity sector by sector is the proper one and should lead to more accurate results.

In the electricity and gas sector our estimate of value added is based upon the Census of Electricity Undertakings. This source provides the most recent available data and we therefore feel our estimate is to be preferred to the alternatives. Our construction estimate, as for East Pakistan, is based upon Elshout. We might point out that Rasul would have obtained a value added estimate much closer to ours had he not included a delivery of more than Rs. 565 million from transport to construction. We see no justification for such a delivery. The transport estimates are all very close. The different trade estimates derive, as in the case of East Pakistan, from the different estimates of margins in each sector.

In the service sectors, the comments regarding East Pakistan accounts apply here also.
4.4. Revision of Accounts

We think we have obtained results which are sufficiently different from those of the CSO that some questions should be carefully asked about the differences. We have no doubt that the input-output method is the superior method for approaching national accounts. But to obtain accurate estimates one needs full access to information. The CSO is in a position to apply the method.

The discussion above clearly points out a number of directions in which the national income estimates made by the CSO could be improved within the given framework of the available data. Without trying to be exhaustive in any way we list below a few of the directions in which such improvement can be brought about.

The estimates of value added in small-scale and cottage manufacturing need drastic revision. The so-called income approach adopted by the CSO is a very rough method indeed and should be reolaced by the direct estimates which are now made possi ble by the Surveys of small-scale and cottage activities. To make such direct estimates possible for other years it will of course be necessary to carry out such surveys at regular intervals. As discussed below, the costs of such surveys on an annual basis may be too high.

In agriculture the present methodology ignores the estimate:of the incomes generated by the products which are entirely intra-agricultural deliveries (e.g., fodder and livestock services). Following the methodology outlined above, it should be possi ble to estimate these products. The main advantape of explicitly measuring these intra-agrisultural deliveries is that it allows us to arrive at more accurate estimates of the incomes generated in each of the separate agricultural sectors. Further improvements in estimating agricultural output and value added could be attained by giving more attention to by-products -- straw, dung, etc.

Output in the construction sector is at present estimated on the basis of the availability of a single linput, cement. This is indeed very uncertain particularly in view of the paucity of data on stock changes. Until such time as the surveys of construction become a regular feature, it would be advisable to adopt some method based on the availability of a number of inputs, e.g., cement and construction iron and steel (see Elshout/4/ for one such method).

An important thing to note about the national income estimates by the \(C S O\) is that the changes in the value added of rather too many sectors are dependent in one way or another on the rate of population growth. These sectors are: fishery, small-scale and cottage production, ownership of dwellings and services. Including trade margins on these items, the value added in the sectors tied to the rate of population growth amounts to over \(20 \%\) of gross product of each region. It is highly unlikely that the growth of income in these sectors has been proportionate to growth of population. While it is inevitable that output of these sectors have fluctuated around a trend rather than grown smoothly, there is little evidence to justify that the trend has depended on population growth rate.

Thus one wonders whether to obtain measures of growth it is useful to estimate domestic and regional products on the present basis. It seems far more desirable to estimate the outputs of each of the sectors mentioned above on the basis of periodic surveys. Such
surveys will be expensive and hence cannot be made every year. It seems sensible to have full domestic product estimates only for those years for which such surveys are carried out. For other years it should be useful to obtain the index of production of the part of the economy for which direct information flows in on an annual basis (major and minor crops, large-scale industries, transport, mining, fuel and power etc.).
5. The Tables.

Above we have described the derivation of inputoutput tables for the East and West Pakistan economies for 1962/63. In Tables \(4 A\) and \(4 B\) the \(1562 / 63\) flow tables are presented. In these tables, large, small and cottage activities of each type are aggregated together.

In using the information in these tables for orojection work, however, some apriori estimates must be made of intra-sectoral structural change. A minimum requirement would be that apriori decisions be made regarding the relative rates of expansion of large, small and cottage components of each sector. To allow users of these data to make their own judgements on intrasectoral changes, we rave presented the coefficient matrices -Tables 5A and 5B -- with manufacturing columns disaggregated by large scale, small scale, and cottage parts. We have also shown \(1862 / 63\) output shares for each part of the sectors. It should be nointed out that these are the outout shares as estimated by us in constructing these tables, and in some cases (es pointed out above) the outputs of perts of sectors are significantly underestimated. Also in the coefficient matrices agricultural columns have been disaggregated into growing and processing, the electrj.city and gas columnis have been shown separately, and the printing column has been shown separately from paper.

Tables 4A and 4B -- Current Flow Tables
All figures in Tables 4 A and 4 B are in million of rupees and have been written with one significant figure to the right of the decimal. All entries are at purchasers' prices of 1962/63، Entries are listed by columni Fot example, the entry listed in Table 4B under 11 Cotton Textiles as 04447.4 means that there was a delivery of Rs, 447.4 milition from sector 04 Cotton Growing and Ginning to sector 11 Cotton Textiles. The entry listed under that same column as 1002193.4 means the output of the cot.ton textiles sector was Rs. 2193.4 million at purchasers' prices. The sector code is shown below.

Tables 5A and 5B -- Coefficient Matrices
Entries are listed by column. For example, the entry in Table 5B under 11 Cotton Textiles large as 04.20398 means that to produce Rs. l/- of cotton textiles in large scale operation Rs. . 20398 were delivered from cotton growing and ginning. The sector code follows.

Rice Growing and Processing
02 Wheat Growing and Processing
03 Jute Growing and Baling
04 Cotton Growing and Ginning
05 Tea Growing and Processing
06 All Other Agriculture, Forestry and Fishery
07 Sugar Refining and Gur Making
08 Edible Oils
09 Cigarettes, Bidi and Other Tobacco Products
10 Other Food and Drink
11 Cotton Textiles
12 Jute Textiles
13 Other Textiles
14 Paper and Printing
15 Leather and Leather Products
16 Rubber and Rubber Products
17 Fertilizer
18 Other Chemicals
19 Cement and Concrete
20 Basic Metals
```

21 Metal Products
22 Machinery
23 Transport Equipment
24 Wood, Cork and Furniture
25 Construction of Residential Houses
26 Construction of Non-Residential Buildings
27 All Other Construction
Miscellaneous Manufactures
29 Coal and Petroleum Products
30 Electricity and Gas
31 Transport
32 Trade
33 Ownership of Dwellings
34 Government
35 Services, n.e.s.
40 Total Current Inputs
50 Indirect Tax on Output
60 Gross Value Added
1 0 0
Gross Value of Production

```

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline で6¢z & 001 & \(\mathrm{I}^{\circ} \mathrm{L}\) & 001 & \(5^{\prime} 8801\) & 001 & 1 ¢ \(£\) & 001 \\
\hline \(\varepsilon^{\prime} 681\) & 09 & I＇t & 09 & 8 －カTL & os & 8.6 & 09 \\
\hline \(\chi^{\prime} \downarrow \varepsilon\) & os & \(1 \%\)－ & os & 2．8L & os & \(\varepsilon \cdot 0\)－ & os \\
\hline \multirow[t]{4}{*}{\(\iota^{\circ} ¢ \varepsilon\)} & 07 & T＇\(\varepsilon\) & 07 & \(5 \cdot 5 力 2\) & \({ }^{0+}\) & \({ }^{\circ}\) ¢ \(¢\) & \({ }^{07}\) \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline \(\mathrm{I}^{\circ} \mathrm{r}\) & \(5 \varepsilon\) & & & & & & \\
\hline \(\mathrm{T}^{\circ} \mathrm{O}\) & － 8 & & & 6.1 & ¢ \(¢\) & & \\
\hline \(5 \cdot 81\) & 2¢ & & & 9．Lit & ¿¢ & I＇0 & \({ }^{\text {2 }}\) \\
\hline  & \(1 \varepsilon\) & & & ع＇6¢ & \(1 \varepsilon\) & I＇0 & \(1 \varepsilon\) \\
\hline T－0 & ¿ & ¢．0 & 乙є & カて & ¿ぇ & \(\varepsilon^{\circ} 0\) & z2 \\
\hline 50 & 81 & \(2^{\circ} 0\) & \({ }^{1}\) & 6.0 & \({ }^{81}\) & 10 & \({ }^{81}\) \\
\hline 6.0 & 4 & \(\mathrm{z}^{\circ} 0\) & \(\angle 1\) & I＇z & 41 & \(\square 0\) & 41 \\
\hline ガカ & 90 & 5.1 & 90 & 9． 49 & 90 & \(0 \cdot 11\) & 90 \\
\hline \(5{ }^{\text {cob }}\) & so & く．0 & 70 & L＇ย1 & £0 & \(9^{9} 1\) & \({ }^{2}\) \\
\hline 嘕＂： & & йךวロ & &  & & วхәй & \\
\hline
\end{tabular}


\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{07-Suger \&ur} & \multicolumn{2}{|l|}{08 - Edible Oils} & \multicolumn{2}{|l|}{09-Cigarette etc.} & \multicolumn{2}{|l|}{\(10=\) Other Food \({ }^{\text {Drink }}\)} & \multicolumn{2}{|l|}{11_-Cotton Textile} & \multicolumn{2}{|l|}{12-Jute Textiles} \\
\hline 06 & 225.0 & 06 & 159.5 & 06 & 51.6 & 02 & 23.5 & 04 & 124.8 & 03 & 166.7 \\
\hline 14 & 0.2 & 08 & 15.8 & 13 & 0.8 & 06 & 23.7 & 06 & 0.8 & 14 & 1.3 \\
\hline 18 & 0.4 & 14 & 1.7 & 14 & 1.9 & 07 & 31.1 & 11 & 431.0 & 18 & 5.7 \\
\hline 30 & 1.5 & 18 & 0.2 & 18 & 0.9 & 08 & 10.4 & 12 & 0.4 & 22 & 5.3 \\
\hline 31 & 18,3 & 21 & 4.1 & 20 & 1.0 & 10 & 0.5 & 13 & 38.1 & 24 & 0.3 \\
\hline 32 & 35.8 & 29 & 0.8 & 28 & 0.1 & 12 & 1.6 & 14 & 1.0 & 29 & 4.6 \\
\hline 34 & 0.1 & 30 & 0.8 & 29 & 0.6 & 14 & 3.5 & 18 & 55.4 & 30 & 11.6 \\
\hline \multirow[t]{9}{*}{35} & 1.8 & 31 & 5.2 & 30 & 0.2 & 18 & 1.2 & 22 & 1.3 & 31 & 12.5 \\
\hline & & 32 & 22.7 & 31 & 3.1 & 21 & 2.4 & 24 & 0.9 & 32 & 43.1 \\
\hline & & 34 & 0.1 & 32 & 19.4 & 24 & 0.2 & 28 & 22.0 & 34 & 0.3 \\
\hline & & 35 & 0.6 & 35 & 0.2 & 29 & 0.4 & 29 & 4.3 & 35 & 5.4 \\
\hline & & & & & & 30 & 0.2 & 30 & 8.4 & & \\
\hline & & & & & & 31 & 3.1 & 31 & 23.7 & & \\
\hline & & & & & & 32 & 18.6 & 32 & 83.9 & & \\
\hline & & & & & & 34 & 0.3 & 34 & 0.6 & & \\
\hline & & & & & & 35 & 0.1 & 35 & 3.6 & & \\
\hline 40 & 283.1 & 40 & 211.5 & 40 & 79.8 & 40 & 120.8 & 40 & 800.2 & 40 & 256.8 \\
\hline 50 & 11.2 & 50 & 2.1 & 50 & 20.5 & 50 & 0.9 & 50 & 30.0 & 50 & 9.2 \\
\hline 60 & 116.0 & 60 & 50.6 & 60 & 57.4 & 60 & 107.5 & 60 & 330.7 & 60 & 317.7 \\
\hline 100 & 410.3 & 100 & 264.2 & 100 & 157.7 & 100 & 229.2 & 100 & 1160.9 & 100 & 583.7 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline 0＊0¢є & \(00^{\top}\) \\
\hline \(9{ }^{\circ} \mathrm{E} 6\) & 09 \\
\hline \(\mathrm{S}^{\circ} 0\) & us \\
\hline \(6^{\circ}\) ¢\＆८ & クサ \\
\hline
\end{tabular}




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\(\begin{array}{ll}06 & 0.6 \\ 12 & 2.7 \\ 18 & 0.9 \\ 28 & 1.4 \\ 29 & 2.3 \\ 30 & 5.4 \\ 31 & 2.5 \\ 32 & 5.8 \\ 35 & 1.6\end{array}\)
17－：Fertilizer


\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 8．62T & 00I & 6．85 & 00I & ザてIT & 001 & LOIZ & 001 & \(8 \bullet 78\) & 001 & I＇8LI & 001 \\
\hline て 8 8 & 09 & \(6^{\prime 2} 27\) & 09 & C＊ 67 & 09 & 8．501 & 09 & サ・82 & 09 & 9＊021 & 09 \\
\hline \(l^{\circ} \mathrm{Z}\) & OS & & \(\cdots\) & L＇0 & 05 & \(9^{\circ} 0\) & OS & \(0{ }^{\circ} \varepsilon\) & 05 & \(L^{\circ} \mathrm{I}\) & QS \\
\hline \multirow[t]{5}{*}{¢．68} & 07 & 0＇9¢ & 07 & L＇29 & 07 & \(\varepsilon \cdot 701\) & 07 & サ®¢ら & 0ヶ & \(8^{\circ} \mathrm{SS}\) & 07 \\
\hline & & \(\chi^{\circ} 0\) & ¢£ & & & \(9 \cdot 0\) & ¢ & & & & \\
\hline & & \(1{ }^{\circ} 0\) & カ¢ & & & \(\chi^{\circ} 0\) & ワ¢ & & & & \\
\hline & & \(6{ }^{\circ} \mathrm{S}\) & て£ & & & 9＊11 & て¢ & & & & \\
\hline & & \(L^{\circ} \mathrm{T}\) & 1¢ & \(5 * 0\) & ¢¢ & \(\varsigma^{\circ} \mathrm{\varepsilon}\) & โ ¢ & て＇1 & \(\varsigma \varepsilon\) & & \\
\hline T＊0 & S¢ & \(\varepsilon{ }^{\circ} 0\) & \(0 \varepsilon\) & \(1 \cdot 0\) & ワ¢ & サ＊0 & 0¢ & て＇0 & カ¢ & \(\varepsilon^{\prime} 0\) & \(\varsigma \varepsilon\) \\
\hline 6＊\({ }^{\circ}\) & て\＆ & \(\varepsilon{ }^{\circ} 0\) & 67 & \(0{ }^{\circ} \mathrm{S}\) & て£ & \(\varepsilon \cdot \varepsilon\) & 62 & サ＊ & て¢ & T．0 & カ® \\
\hline ぐわ & T \(\varepsilon\) & \(\varepsilon{ }^{\prime} 0\) & セて & \(5^{*} 1\) & โย & \(1 \cdot \tau\) & 82 & 0＊\(\dagger\) & \(1 \varepsilon\) & \(6^{\circ} \mathrm{SI}\) & て£ \\
\hline \(\varepsilon \cdot{ }^{\circ}\) & 0と & £ 8 & とて & で0 & 0¢ & \(L^{\circ} 0\) & てて & \(6^{\circ} 0\) & 0 O & 8． 21 & T\＆ \\
\hline ザ0 & 62 & L＇£ & てて & \(0 \cdot 7\) & 67 & \(9{ }^{\circ} \varepsilon\) & 12 & \(5^{\circ} \mathrm{I}\) & 62 & 8＊1 & \(0 ¢\) \\
\hline \(0{ }^{\circ} \mathrm{E}\) & ゅて & \(0^{\circ} \mathrm{T}\) & 1て & \(L^{\circ} 0\) & 8 ¢ & \(0^{\circ}\) TL & 02 & T＊0 & ゅて & L＂I & 62 \\
\hline \(\varepsilon \cdot 0\) & て2 & \(5 \cdot 1\) & 02 & I＇乙 & てて & \(8^{\circ} \mathrm{E}\) & 81 & \(\chi^{*} 0\) & てて & \(9 * 1\) & 97 \\
\hline L＇S & 12 & \(5^{\circ} 0\) & 81 & 0＇s & IZ & \(7^{\circ} \mathrm{T}\) & 91 & \(\varepsilon^{\circ} \mathrm{T}\) & 12 & 2＊0 & てZ \\
\hline \(\varepsilon{ }^{*} \mathrm{I}\) & 02 & \(8^{\circ} \mathrm{I}\) & 91 & －「リ¢ & 02 & \(z^{\circ} 0\) & ゅT & て＇9¢ & 02 & £ 6 & 6 \\
\hline I＇Z & 81 & \(\chi^{\circ} 0\) & 21 & ザ0 & 8 I & \(\mathrm{T}^{\circ} \mathrm{T}\) & II & て＇0 & 81 & \(6{ }^{4}\) & 乙 \\
\hline L．59 & 90 & て＇01 & 90 & I＊6 & 90 & \(8^{\circ} 0\) & 90 & \(\chi^{\circ} 0\) & カフ & \(\zeta^{*} \mathrm{~S}\) & 90 \\
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\hline 0．97 & 09 &  & 09 \\
\hline 8. & OS &  & OS \\
\hline \multirow[t]{6}{*}{\(\varepsilon \cdot 8 \dagger\)} & 07 & \(9.97 \%\) & 07 \\
\hline & & L＇8 & \(\varsigma \varepsilon\) \\
\hline & ． & 2．1 & カ¢ \\
\hline & & \(5 \cdot 6\) & て¢ \\
\hline & \(\therefore\) & z＇z & โ \\
\hline & & \(0 \cdot \varepsilon\) & \(0 \varepsilon\) \\
\hline \(\dagger\) & \(\varsigma \varepsilon\) & \({ }^{\text {¢ }}{ }^{\text {S }}\) & 62 \\
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\hline 9. & IE & T＊0T & 22 \\
\hline \(z\) & \({ }^{\circ}\) & L＇IT & 12 \\
\hline \(6^{\circ}\) & Iz & \(\varepsilon^{*} \subseteq T\) & 02 \\
\hline ャ． & 8 I & \(9{ }^{\circ}\) & 81 \\
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\hline 9.57 & 90 & \(L^{\circ}\) & 90 \\
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\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline ¢．LS¢ & 001 & L•892 & \(00 \tau\) & \(0 \cdot カ\) ¢ & 001 & \(\angle \cdot T \angle 9 T\) & 001 & ع＇16s & 001 \\
\hline \multirow[t]{2}{*}{\(9 \cdot \varepsilon \varsigma ะ\)} & \multirow[t]{2}{*}{09} & \(8^{\circ} \mathrm{zs}\) & 09 & E．ts & 09 & \multirow[t]{2}{*}{6．98L} & \multirow[t]{2}{*}{09} & \multirow[t]{2}{*}{\(0 \cdot \varepsilon 62\)} & \multirow[t]{2}{*}{as} \\
\hline & & \(8^{\circ} \mathrm{Z}\) II & OS & \(L^{\circ} \mathrm{\imath}\) & OS & & & & \\
\hline \multirow[t]{8}{*}{6＊¢0I} & \multirow[t]{8}{*}{07} & \multirow[t]{8}{*}{\({ }^{\text {¢ }}\) ¢0I} & \multirow[t]{8}{*}{07} & \(0 \cdot 08\) & \(0{ }^{4}\) & 8＊788 & 07 & \multirow[t]{6}{*}{\(\varepsilon \cdot 862\)} & \multirow[t]{5}{*}{O4} \\
\hline & & & & \(\tau^{\bullet} \varepsilon\) & \({ }_{5}\) & & \multirow[t]{3}{*}{} & & \\
\hline & & & & \({ }^{1}{ }^{\text {I }}\) & 7¢ & & & & \\
\hline & & & & L．01 & て£ & & & & \\
\hline & & & & \(6 \cdot 2\) & T\＆ & & & & \\
\hline & & & & \(0 \cdot \square\) & \(0 \varepsilon\) & & \multirow[t]{2}{*}{，} & & \multirow[t]{2}{*}{＇} \\
\hline & & & & \(\varepsilon \varepsilon^{\circ} \varepsilon\) & 62 & & & & \\
\hline & & & & \(5 \%\) & 82 & \(0^{\circ} 2\) & \(\varsigma \varepsilon\) & ガロ & ¢¢ \\
\hline \multirow[t]{3}{*}{4} & \multirow[t]{2}{*}{} & & \(\varsigma \varepsilon\) & 0.5 & Lz & 8. & \({ }^{\dagger} \mathrm{E}\) & \(\varepsilon\) ． & \({ }^{\square} \mathrm{c}\) \\
\hline & & \({ }^{\text {－}}\) & 78 & L．LU & 81 & \(0 \cdot 27\) & 0¢ & 0＇s & \multirow[t]{2}{*}{\(0 \varepsilon\)
8} \\
\hline & & \(9 \cdot 62\) & て\＆ & I． & SI & \(9^{\circ}\) T1 & 62 & 5.7 & \\
\hline \(\stackrel{ }{*}\) & & 8．12 & โ¢ & \(\varepsilon \cdot 01\) & カ1 & โ＇8T & 2z & 0＊2I & \multirow[t]{2}{*}{27
72} \\
\hline \(9 \cdot\) & ¢ & 8. & 0¢ & \({ }^{\text {－}}\) & ZT & 2．89 & 12 & く＇z & \\
\hline \({ }^{\circ}\) &  & 6．78 & 62 & \(\tau^{*}\) & It & カロロッ & 02 & \multirow[t]{2}{*}{9.59
0.56} & 13
02 \\
\hline \＆．16 & O\＆ & \({ }^{\circ}\) & ゅて & I & 01 & \({ }^{9} 6\) ¢ ¢ & 6 T & & 61 \\
\hline \(\nabla^{\circ} 9\) & 62 & \(\varepsilon \cdot L\) & tz & \(L^{\prime} \mathrm{I}\) & 90 & 0．01 & 81 & \(8^{\circ} \mathrm{zz}\) & \multirow[t]{2}{*}{\(8 i\)
\(n 0\)} \\
\hline \(s \cdot 5\) & \multirow[t]{2}{*}{zz} & \(8 \cdot \tau\) & \multirow[t]{2}{*}{\({ }^{81}\)} & \multirow[t]{2}{*}{\({ }^{\prime}\)} & 70 & I＇Z1 & \multirow[t]{2}{*}{90
\(-\bar{L} \bar{z}\)} & 0＊61 & \\
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\hline ¢•98 & \(\dagger\) ¢ & & \\
\hline ガ6で & L \(\varepsilon\) & & \\
\hline  & \(0 \varepsilon\) & & \\
\hline \(0 \bullet\) SI & 62 & & \\
\hline ガて & 82 & & \\
\hline 5 － & てて & & \\
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\hline \(9^{\circ} \mathrm{E}\) & 81 & 1 1 & \\
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\begin{tabular}{|c|c|c|c|c|c|}
\hline & ¢62＊ & \(\angle \mathrm{IZ}{ }^{\circ}\) & \(887^{\circ}\) & & \\
\hline & \(820 L^{\circ}\) & Z0とて8＊ & ¢¢808＊ & ¢¢008＊ & 07 \\
\hline & & & s9ヵャ00＊ & LZZ00＊ & SE \\
\hline & & & 8 \(2000{ }^{\circ}\) & 8€000＊ & ワ¢ \\
\hline & & 9とてZ！\({ }^{\text {－}}\) & LEIZ．＊＊ & \(26580{ }^{\circ}\) & 2¢ \\
\hline & & ¢9zzo & 26620＊ & \(89610{ }^{\circ}\) & I¢ \\
\hline & & & 76500＊ & と0¢00＊ & \(0 ¢\) \\
\hline & & & 7¢900＊ & £0¢00＊ & 62 \\
\hline & ゅ¢て00＊ & \(97600{ }^{\text {a }}\) & て¢970＊ & zSSIO＊ & 12 \\
\hline ＊＊ & & てワ000 \({ }^{\text {－}}\) & 61100＊ & 9 \(2000{ }^{\circ}\) & 81 \\
\hline & 7 \(2100{ }^{\circ}\) & 08£00＊ & 65010＊ & £ワ900＊ & 71 \\
\hline & & & しくてで＊ & 08650＊ & 80 \\
\hline & 0699 \({ }^{\circ}\) & ととカワの・ &  & ［ \(\angle 809^{\circ}\) & 90 \\
\hline & 2887705 & ITeus & －8987 & －－－－－70］ & \\
\hline \multicolumn{6}{|l|}{} \\
\hline
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\hline ¢8． & ¢19＊ & \\
\hline \multirow[t]{2}{*}{OLIES} & ムサ687＊ & 20905 \({ }^{\text {＊}}\) \\
\hline & \(9070{ }^{\text {－}}\) & LZ100＊ \\
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\hline ILIIO & と8ヵて \(0^{\circ}\) & 996 I0 \({ }^{\circ}\) \\
\hline 18100＊ & £ \(2000{ }^{\circ}\) & \(\angle Z 100{ }^{\circ}\) \\
\hline \(81500^{\circ}\) & \(8620{ }^{\circ}\) & 08£00＊ \\
\hline \multirow[t]{3}{*}{［9000 \({ }^{\circ}\)} & Et500＊ & £9000＊ \\
\hline & くヵロ10＊ & 7¢900＊ \\
\hline & ¢T600＊ & 1 \(\angle 500{ }^{\text {－}}\) \\
\hline くヵで0＊ & SEIIO＊ & S0Z10＊ \\
\hline 9 \(\uparrow\) Z 10. & & LOS00＊ \\
\hline くモサ6を． & Z0¢82＊ & 0てくてを． \\
\hline ṣฺp &  & －¢70］ \\
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\begin{tabular}{|c|c|c|c|c|c|}
\hline \(70 z^{\circ}\) & \(\varepsilon \angle I\). & \(667^{\circ}\) & ャて \({ }^{\text {－}}\) & & \\
\hline 000६て \({ }^{\text {－}}\) & \(20692^{\circ}\) & 9¢İ¢ & 29529 \({ }^{\circ}\) & SOLZS \({ }^{\circ}\) & 07 \\
\hline & & & LSE00 \({ }^{\circ}\) & ワヲ000＊ & ¢ \(\varepsilon\) \\
\hline & & & ESOL0＊ & Let00＊ & †¢ \\
\hline 0000て & & ササ190＊ & OTLLO & SII80＊ & て£ \\
\hline 000¢0＊ & & OSOLO＊ & \(\angle \angle 810{ }^{\circ}\) & £S¢10＊ & T\＆ \\
\hline & & & ＋8900 & L8000 \({ }^{\circ}\) & 0¢ \\
\hline & & & 6ヵて10＊ & S \(\angle 100{ }^{\circ}\) & 62 \\
\hline & & & てワ800＊ & \(\angle 8000^{\circ}\) & ャて \\
\hline 3 r & & 60110＊ & L10ヶ0＊ & \(\angle 70\) L0＊ & LZ \\
\hline & & 09000＊ & L9070 \({ }^{\text {－}}\) & ゅて¢00＊ & 8 T \\
\hline & & くヶしで＊ & LZLEO \({ }^{\circ}\) & ĽSt0＊ & ゅ \\
\hline & & & 90L50． & \(8690{ }^{\text {＊}}\) & ZI \\
\hline & & 26I00 \({ }^{\circ}\) & Z01t0＊ & 81200＊ & 01 \\
\hline & 99901. & LEESO＊ & \(88000^{\circ}\) & 8\＆らワ7＊ & 80 \\
\hline & サIESE． & 67 LとI & ¢1050 & 695EI＊ & \(\angle 0\) \\
\hline & 97らとて & 20680＊ &  & 0ヵを0т & 90 \\
\hline & 9 \(18 \angle 0^{\circ}\) & C975 \({ }^{\text { }}\) & LIEOT \({ }^{\text {－}}\) & ESZOT＊ & z0 \\
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\section*{Table 5A - Coefficient Matrix for East}



\(0 \angle 0 S L^{\circ}\) \(08 \angle I I^{\circ}\)
\(65900^{\circ}\) \(9 ६ 700^{\circ}\)
\(6 \angle Z 10^{\circ}\)
\(98000^{\circ}\) \begin{tabular}{c}
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\end{tabular}

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\hline 79610 \\
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\(\stackrel{\omega}{\sim}\)
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Table 5A - Coefficient Matrix for East Pakistan










250

Output Shares

\begin{tabular}{|c|c|c|c|c|c|}
\hline & & 181 \({ }^{\text {．}}\) & \(618^{\circ}\) & & \\
\hline \(6 \angle 9 \angle 0^{\circ}\) & 07 & & & & \\
\hline \(68100{ }^{\circ}\) & ¢ & & & & \\
\hline 6て700＊ & \(7 \varepsilon\) & & & & \\
\hline \(60200{ }^{\circ}\) & \(0 \varepsilon\) & & & & \\
\hline 15¢80＊ & \({ }^{6}\) & & & & \\
\hline 67 600 \({ }^{\circ}\) & 82 & 27060＊ & サワヤレて・ & マ\＆ıセて＊ & 0ワ \\
\hline 8 ¢ \(\angle 00^{\circ}\) & \(\varepsilon 乙\) & & & & \\
\hline ¢ \(\angle 500{ }^{\circ}\) & Iz & &  & 6 6¢00＊ & \(\downarrow \varepsilon\) \\
\hline \(88500{ }^{\circ}\) & 9 T & 98990 & £〉६¢0＊ & 88550＊ & 0¢ \\
\hline 6ıZ00＊ & ヶT & & 07965＊ & \(8809{ }^{\circ}\) & 62 \\
\hline 6てヶ00＊ & て1 & \(9 \varepsilon\) ¢ \({ }^{\circ}\) & ISSIo \({ }^{\text {－}}\) & £6910＊ & z \\
\hline \(81900{ }^{\circ}\) & 90 & & \(\angle 1500^{\circ}\) & とてヶ00． & 71 \\
\hline & & ses &  & －19\％\％ & \\
\hline \multicolumn{2}{|l|}{} & \multicolumn{4}{|l|}{} \\
\hline
\end{tabular}
fi \({ }_{\omega}^{\omega} \underset{\sim}{\omega} \underset{\sim}{\omega} \underset{\sim}{N}{ }^{\sim}\)





35 Services n.e.s

Output shares of \(r\) ce and wheat processing do not add up to \(i .000\) because
growing by-product is included in gross output but not in processing output
* Input from growing
\(*\) Output shares of \(r\)




LヵZ \(200^{\circ}\)
LsZ10.
10700
* \({ }^{(706 \varepsilon \angle \cdot)}\)
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\hline 29を8® \\
\hline \(70100{ }^{\circ}\) \\
\hline \(5000{ }^{\text {. }}\) \\
\hline £9100* \\
\hline s ¢000 \({ }^{\text {- }}\) \\
\hline L0600 \({ }^{\text {* }}\) \\
\hline 9 LLZO* \\
\hline ¢ \(\$ 000{ }^{\text {- }}\) \\
\hline 6TL8Z \\
\hline L65so \({ }^{\text {- }}\) \\
\hline
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\hline £ャL00＊ & \(5 ¢\) \\
\hline £6000＊ & 7¢ \\
\hline サ9とャ0＊ & て¢ \\
\hline カ9カ00． & I¢ \\
\hline £6000 \({ }^{\circ}\) & OE \\
\hline E6000＊ & 8 \\
\hline †I \(\angle 80^{\circ}\) & サI \\
\hline L8¢6 \({ }^{\circ}\) & So \\
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Table 5B - Coefficient Matrix for West Pakistan


Output Shares
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\hline \multicolumn{4}{|l|}{11_Cotton Texitiles} \\
\hline & Total & Large & Smal1 \\
\hline 04 & (. 20398 & . 26919 & \\
\hline 06 & . 00173 & . 00229 & \\
\hline 11 & . 30998 & . 23243 & . 55250 \\
\hline i2 & . 00050 & . 00036 & . 00094 \\
\hline 13 & . 01673 & . 01233 & . 03049 \\
\hline 14 & . 00132 & . 00114 & . 00188 \\
\hline 18 & . 07130 & . 06974 & . 07621 \\
\hline 22 & . 00761 & . 00560 & . 01393 \\
\hline 29 & . 00866 & . 01143 & \\
\hline 30 & . \(\bigcirc 1742\) & . 02238 & . 00188 \\
\hline 31 & . 00647 & . 00638 & . 00677 \\
\hline 32 & . 11904 & . 10415 & . 16560 \\
\hline 34 & . 00091 & . 00120 & \\
\hline 35 & . 00666 & . 00878 & \\
\hline 40 & . 77231 & . 74740 & . 85020 \\
\hline
\end{tabular}

\(907 \angle 9\)

 13 Other Textiles
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ITable 5B Coefficient Matrix for West Pakistan（page 6）


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\section*{ごロッ5}


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[^0]:    *The standard assumption of Leontief type projections is that inputs to a sector must expand in proportion to the expansion of output of the sector. The assumption is applied to inputs of trade and transport services as well as the inputs of other items. Such an assumption is consistent with the producers ${ }^{\text {i }}$ price method of estimating trade and transport inputs, since then

    $$
    \left.T_{j}=\sum_{i} t_{i} x_{i j}=\right\rangle_{i} t_{i} a_{i j} x_{j}=x_{j} \sum_{i} t_{i} a_{i j}
    $$

    and the input of trade and transport services to sector $j$ is proportional to the output of sector $j$. But if the purchasers price method is used

    $$
    T_{j}=\sum_{i} t_{j} X_{j i}=t_{j} \sum_{j i} \mathrm{X}_{i}
    $$

    and the input of trade and transport is not proportional to output, In the above $T$; is the input of trade and transport services to the sector $j, X_{j}$ is output of sector $j, t_{j}$ is trade and transport cost of getting a unit of the output to the user, $X_{i j}$ is the delivery from sector $i$ to sector $j$, and $a_{i j}$ is the input of type $i$ required per unit of output of type $j$.

