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Nutul Islam

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STUDIES ON COMMERCIAL POLICY AND ECONOMIC GROWTH

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Introduction to the Series

The Pakistan Institute of Development Economics has compiled a series of *Readings* on various aspects of the development problems of Pakistna. These *Readings* consist of important studies relevant to the subject-matter to which the different volumes in this series pertain. It is hoped that the studies presented in these volumes will go a long way to fill in the lacunae in the field of economic literature for Pakistan.

All of the studies included in this volume were originally published in the Institute's quarterly journal, *The Pakistan Development Review.* The Institute has now been in existence for over a decade and *The Pakistan Development Review* is in the ninth year of its publication. During this period, the Institute has made very significant contribution in various fields of applied economic research. The studies carried out at the Institute have been of immense value to the planners, researchers and academics. Most of these studies were published in one form or the other in *The Pakistan Development Review* which is widely recognized, both in Pakistan and abroad, as one of the outstanding journals in the field of Development Economics.

In recent times, we have been receiving suggestions from outside and have been increasingly becoming aware ourselves of the desirability of compiling in a number of volumes die significant contributions of the Institute in particular areas of research in development economics. We have come to recognize that this would be of significant use not only to those planners and researchers who would like to have important pieces of analyses in any particular area to be collected in a single volume, but also to the teachers and students at the advanced levels at the universities who have been handicapped in the teaching of courses in economics of Pakistan because of the lack of analytical and empirically oriented studies. It is in the hope of fulfilling these needs that we have embarked on the project of compiling books of readings selected from the studies published by the Institute.

It may be noted that we have confined ourselves to the studies actually undertaken by the members of the research staff at the Institute. *The Pakistan Development Review* regularly attracts contributions from eminent economists outside the Institute, both national and international. Many of these contributions are highly competent and relevant. But we have found it useful to confine ourselves to the studies carried out *at the Institute* because one of our purposes is to highlight the contribution of the Institute in specific areas of applied economic research.

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STUDIES ON
COMMERCIAL POLICY
AND
ECONOMIC GROWTH

Introduction

Nurul Islam

This volume reprints a number of articles published in *The Pakistan Development Review* over the last few years. They cover principally two broad areas: import policy and the strategy of import substitution, on the one hand, and export policy and problems and prospects of export expansion, on the other. These articles represent and have contributed in many different ways towards not only the evolution of economic thinking and analysis in the critical areas of trade policy but also depict and analyse significant changes in the realm of the government's economic policies in Pakistan in the last decade or so.

Since early fifties, Pakistan adopted a policy of quantitative controls on imports. The two articles by Syed N. H. Naqvi [8 ; 9] on import policy and one by Philip Thomas [13] analyse the administrative apparatus as well as the economic implications and consequences of the import restrictions in terms of efficiency and equity. The import policy in Pakistan has been over the years used to help achieve a large number of objectives. The impact of import controls and import licensing on the allocation of resources is crucial. The differential structure of price and profit incentives which resulted from the import licensing during 1950's favoured the consumer-goods industries. However, towards the late fifties and sixties, an increasing domestic demand for intermediate and capital goods, given the general excess demand for foreign exchange, increased the profitability of investment in the latter sectors. The rate of growth of the capital- and intermediate-goods industries was accelerated during the latter period.

Gordon Winston iti [14] discusses how best to quantify and analyse the alternative measures of import substitution and the relative degree of import substitution in the different industrial sectors. Whether the rapid pace of import substitution in the consumer-goods sector during 1950's, through an expanded domestic supply of consumer goods, might have militated against the required or intended increase in domestic savings has been often debated (A. R. Khan [7]). The precise method of quantifying or testing such a hypothesis is far from clear. The quantitative evidence, so far as the import-substituting industries are concerned, refers to a very limited number of consumption-goods industries. Moreover, the inability to expand export of the output of the domestic consumption-goods industry and hence to contribute to the mobilisation of savings is partly traceable to a weakness in fiscal and exchange-rate policy. The import substitution in the intermediate- and capital-goods sectors does not necessarily increase the rate of domestic savings; while it is true that cloth can be consumed and machine cannot be, in many cases the limitation of the domestic market and of the domestic-resource endowment, and the dearth of managerial and technical skill may result in low quality, inefficiency, and high cost of production so that the increase in real income due to investment in capital-goods sectors is small. Furthermore, a relative scarcity of consumer goods *vis-a-vis* capital goods in the face of the unchanged domestic propensities to consume may result in inflationary pressure, and require a rigid control over consumption as well as on the allocation of domestic resources. If rationing and direct control over the allocation of resources is necessary to stimulate savings and capital formation in the context of a strategy oriented towards the capital-goods industries, they may equally well be resorted in order to restrain consumption by an expansion of export of the consumer-goods industries.

Increasingly over the years there was a recognition of a number of limitations of the prevailing import-licensing system such as lack of competition in the domestic industry, excessive inventories due to the uncertainty of the import-licensing policy, underpricing of foreign exchange and capital leading to under-utilised capacity and an uneconomic use of scarce foreign exchange, and inequities imposed on small firms and regions far away from the location of the import control authorities, *etc.* This led to a gradual change in import policy in several directions, as indicated both by Philip Thomas [13] and Frank C. Child [2], The import-licensing system in Pakistan has undergone important changes over the years. There has been a movement in the direction of liberalisation of controls on imports and a greater reliance on price mechanism in the late fifties and during 1960's. Thus, the first steps in the process of import liberalisation were directed towards increasing the degree of competition in the import trade and thus distributing the excess profits of the importers among a larger number of traders. The scarcity margins on the imported goods are primarily related to the relative scarcity of imported goods. The scarcity margins are high, varying from 30 per cent to 50 per cent above the landed costs

of imports, depending upon the relative intensity of import licensing in respect of different items. The initial study of the scarcity margins in the domestic prices of imported goods by Mati Lai Pal [10] was extended subsequently to a larger number of items and to a later period and confirms the findings of the original study. These studies provide for the first time an empirical measurement of the intensity or the restrictive effects of the quantitative controls on imports.

The significant steps in the direction of restoration of the role of price mechanism in lieu of direct control over imports which mainly affected the imports of consumer goods and raw materials have been ably analysed by Philip Thomas [13]. However, beginning late 1965, consequent upon the Indo-Pakistan war and an increase in defence imports and slackening of commodity aid flow, there was a setback to the process of liberalisation of imports. Not only the volume of imports in the free list was reduced but also they were subject to increasing administrative restraints. The process has been continued in the subsequent years, not so much in the form of expansion of free list as in the form of an increasing range of imports being placed on the bonus list. The cfsh-cww-bonus scheme introduced subsequently, and as explained by Frank C. Child [2] in his article, is not so much a component of import-liberalisation programme as that of raising the effective rate of exchange for a wide range of raw-material imports. The rationale of the import liberalisation in Pakistan deserves close examination. It has been conceived more in terms of allowing a flow of a greater quantum of imports rather than the restoration of the market machanism in the regulation of imports, irrespective of the quantity of imports. However, the initial relaxation of controls was associated with a large inflow of foreign commodity assistance to finance import of raw materials and consumer goods. The price mechanism has been considered appropriate only in a situation of a relatively larger supplies of foreign exchange through exports and foreign aid; with a shortfall in the availability of foreign aid and foreign-exchange earnings, it is preferred to regulate imports by rationing rather than by raising price of foreign exchange, specially for raw materials and capital goods. Moreover, it is recognized that for some items such as food and essential consumer goods a rise in the import price generates inequities, specially if they are important components of the cost of living of the poorer people. For certain other items, demand is considered to be highly inelastic so that high price is not able to restrict demand adequately and rationing through import licensing is the only effective method of restraining demand and conserving foreign exchange. How and under what circumstances these assumptions hold true requires further analysis in the context of circumstances prevailing in Pakistan.

Frank C. Child [2] legitimately asks the question as to whether the system of foreign-exchange allocation in Pakistan could not be rendered more efficient if bonus-voucher system is so generalised as to include all exports and imports

excepting in the case of the trade under the barter agreements and the tied Joans, both of which require quantitative control on trade for their effective implementation or utilisation. It will allow the market to determine to a large extent the prevailing exchange rate. The movement from a complicated structure of multiple-exchange rates which results from the quantitative restrictions on trade to a unified, more realistic fixed exchange rate in one single step implies not only a discontinuous change but also faces the additional difficulty of deciding on the appropriate rate of exchange, *i.e.,* appropriate to the demand and supply of foreign-exchange earnings in the absence of import controls, given the rate of investment and availability of foreign aid. The extent of departures from the appropriate exchange rate which are hidden in the maze of restrictions is difficult to fathom or quantify while the latter is still in existence; a period of free, albeit fluctuating exchange rates may be helpful prelude to the determination of appropriate level of the exchange rate, if decision is taken to fix a new, in some sense an equilibrium, official exchange rate rather than relaying on a free-market determination of the exchange rate.

One of the important effects of the quantitative controls on imports, as has been mentioned earlier, is the protection provided to the domestic manufacturing industries. They overshadow the effects of tariffs. The efficiency of the import-substituting industries has been a subject of considerable analysis in Pakistan and in the Institute. The ex-factory prices of the Pakistan manufacturing industries exceed in many cases the corresponding *c.i.f.* prices by 50-100 per cent and in some cases by as much as 100-200 per cent [5], This measurement of relative inefficiency does not allow for the fact that an important component of the inefficiency or high cost in a particular industry is the result of high cost of inputs due partly to high import duties or scarcity margins on the imported input and partly to the inefficiency of the supplying industries. The measurement of the degree of effective protection enjoyed by the Pakistani industries, undertaken by [12] in a first study of its kind done in any developing country, indicates that the value added in world prices in many cases is very low and in some cases even negative. While it is undoubtedly true that this measurement of relative inefficiency includes the effect of *a)* overvaluation of exchange rate, *b)* the relative infancy of the Pakistani industries, and c) the existence of excess profits or rents, these findings do justify considerable concern about and consequentional efforts to improve the efficiency of industrialisation in Pakistan. This is particularly relevant while formulating the strategy of industrialisation for the fourth and subsequent plans.

Simultaneously with the study of the nature, content and efficiency of the strategy of import substitution in Pakistan, the PIDE has devoted considerable attention to the study of export policies and potentials of Pakistan.

Because of the peculiar geography of Pakistan, long distance and considerable transport costs between East and West Pakistan, interregional trade in

Pakistan poses special problems and has features familiarised by the literature on the customs or economic unions. It has important implications for the pattern and magnitude of regional economic development as well as for the interregional transfer of resources in Pakistan. The study of interregional trade [6] raises and quantifies some of these problems. The article on the export potential of fine rice [3] provides a significant illustration, from amongst a number of studies on the prospects of important export commodities in Pakistan, as to the range of problems which the emergence of a new export crop raises in terms of domestic as well as external economic policy relating to world and domestic supply and demand including its competitiveness in the world market and the opportunity costs of domestic production. Pakistan in its western province is on the threshold of achieving a substantial agricultural surplus, specially of wheat and rice, owing to the rapid adoption of new technology. The analysis of the prospects of export of this surplus and of the appropriate price policy, both at home and abroad, in the light of their domestic resource costs, assumes a critical importance. This article illustrates the kind of considerations which are appropriate and the associated empirical analysis which is necessary for the formulation of sensible policy in this area. The manufactured exports of Pakistan have expanded very rapidly in the last several years not only in terms of exports of jute and cotton textiles but also in terms of a large number of minor manufactured exports. In many cases such as cotton, jute, and hides and skins, the manufactured exports have substituted for the exports of raw materials which have declined in relative importance over the years. The three articles [1 ; 4 ; 11] analyse the extent to which the substitution of the exports of raw materials by their processed or manufactured counterparts, *i.e.,* cotton cloth in place of raw cotton for example, contributes to net foreign-exchange earnings in view of the substantial export incentives which are granted to these exports. The import component of exports makes further drain on the net foreign-exchange earnings of the manufactured exports. The differential net foreign-exchange earning of different exports is only part of the considerations relevant to an appropriate pattern of manufactured exports, which assumes crucial importance as Pakistan aggressively pursues an expansion of her manufactured exports. The critical criterion is the domestic opportunity cost of earning foreign exchange in case of the individual exports. This also raises the question of the maintenance of an appropriate exchange rate directly or indirectly by taxes and subsidies which adequately reflects the relevant domestic resource costs. The rationale of the considerable degree of discrimination in terms of export incentives which is at present exercised between agricultural exports, on the one hand, and the manufactured exports, on the other, as well as between the individual commodities in each category has been analysed in these articles. The considerations behind discriminatory export incentive schemes have been multiple and have not often been clearly distinguished and scrutinised. Once it is clearly recognised that the objective is not necessarily to maximise foreign-exchange earnings but to maximise real income, subject to the restraint of supply and demand for exports,

the issues relating to an appropriate exchange-rate policy as well as to the whole list of widely different export-promotion measures now in operation in Pakistan, call for a systematic analysis.

Pakistan's progress over the last two decades from a relative emphasis on import substitution to that on export expansion in the field of manufacturing industries has many facets and aspects. Moreover, Pakistan's economic policy in this area has been governed by multiple considerations as well as by multiple instruments of policy. This is a process of development which richly deserves analysis and discussion; it not only has implications for future progress but also it may provide guidelines for the formulation of future policy and strategy in Pakistan as well as lessons of possible relevance in other developing countries. The articles contained in this volume have contributed, it is believed, not insignificantly to the process of understanding and analysis of this experience as well as indirectly to the formulation of policy in this area.

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Part I

Import Policy and Import Substitution

Import Licensing and Import Liberalization in Pakistan

philip S. Thomas

This chapter originally appeared as an article in the Winter-1966 issue of *The Pakistan Development Review.* The research underlying this study took place at the Pakistan Institute of Development Economics mainly during 1964, when the author was associated with the Institute in advisory capacity. This study would not have been possible without the cooperation of Mr. S. M, Shafiul Azam, C.S.P., the former Chief Controller of Imports and Exports (CCI&E), nor without the help of many other in the government and private life, too numerous to be named, who provided the data and who discussed at length many issues with the author and other members of the Institute staff. The author owes a particular debt to Mr. Mumtaz Ali, CCI&E Statistical Officer, and Mr. Afazuddin Ahmed, Deputy Controller, who spent many hours helping to collect the data and to explain the many complexities of the import-licensing system. Several members of the Institute staff have made extensive contributions to the compiling of the CCI&E data [25], upon which part of the present study is based: A. H. M. Nuruddin Chowdhury, Man Omer Malik. Mohammad Aslam Khan, and Bruce Glassburner.

The usual statement that the author alone is responsible for the presentation of the data, for the interpretation and opinions given, and for the conclusions reached is peculiarly applicable in this instance, as many who have helped have expressed disagreement with one or another aspect of the argument. Although the author has tried to take account of these criticisms, in the last analysis he has, of course, had to use his own judgement.

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Import Licensing and Import Liberalization in Pakistan

philip S. Thomas

INTRODUCTION

Import policy has played a particularly important role in Pakistan's economic planning. The amount and allocation of imported machinery and raw materials have directly affected the nature and pace of both industrial and agricultural development. The composition of imports has had a very significant effect on internal relative prices which, in turn, essentially determine the allocation of investment in the private sector. Finally, imports have provided both the government- (in the form of tariffs) and the private-sector (in the form of profits) access to potential savings which, to a large extent, have been converted into investment during the last decade. While import policy should not be viewed completely in isolation, it is sufficiently important to merit careful and intensive study.

Over the past several years, substantial research has been carried out **011** two aspects of Pakistan's import policy: the description and analysis of the institutional arrangements; and the development of reasonably accurate statistics. In terms of institutional arrangements, three contributions are especially worthy of mention. Naqvi [13] has presented a detailed description of the import licensing system, indicating the agencies involved and the major problems faced by them, as well as describing the mechanics of licence allocation. Hecox [7] has reviewed one important, yet neglected, aspect of the licensing system: the use of import licences to stimulate exports. Perhaps the most important

recent publication in this area is the *Manual of Imports and Exports Control* [16], a compendium of regulations and forms, compiled by the Office of the Chief Controller of Imports and Exports (CCI&E), in the Ministry of Commerce.

On the quantitative side, recent work has shed light on the allocation of actual imports (Khan [8], the Planning Commission [19 ; 20 ; 21]), the tariff structure (Radhu [27 ; 28], Soligo and Stern [29; 30]), and domestic prices of imported goods (Pal [24; 25]). The CCI&E has recently made available licensing data from the period 1953 through 1964, which have been compiled (and reproduced in mimeographed form) by the International Trade Section of the Pakistan Institute of Development Economics [14]. Although much more qualitative and quantitative research needs to be done, we have gained, as a result of the aforementioned studies, an improved perspective on the nature of Pakistan's import policy, and we are in a much better position to assess its economic impact.

A reappraisal based on the new "evidence" has already begun; it has been and is being carried out by the researchers mentioned above, and it has appeared as part of the analyses of overall investment allocation and productivity increases by Lewis and Soligo [11], Soligo and Stern [29 ; 30], and Lewis [10]. The present study focusses on Pakistan's import licensing system, describing the feature that distinguishes it from most other underdeveloped countries: the evolution toward greater reliance on market forces conditioned by "indirect controls", and away from the rigid, bureaucratic, direct controls that characterized it during much of the 1950's. For the first time, it is possible to discuss this import liberalization with supporting statistics which permit some appraisal of the quantitative significance of the changes that have been made.

This paper analyses the liberalization trend only up to July 1965. The postponement of the Consortium meetings and the war over Kashmir in 1965 prevented the import policy for 1965/66 from being carried out, and resulted in a return to more restrictive licensing. As liberalization is gradually restored, it will be important to compare these policies with the position in July 1965, when the previous level of liberalization reached its zenith. To assess these past trends and to facilitate future comparative analyses are the purposes of this paper.

II. EVOLUTION TOWARD IMPORT LIBERALIZATION

In January 1965, the Government of Pakistan mg.de a major departure from its previous import policy based on rigid import licensing. In that month it placed four iron and steel items on the "Free List", which meant basically that any businessman could import any amount of these items without restriction (although it was later qualified by restrictions, as indicated in Appendix B). This change was followed in July 1964 by an expansion of the Free List to 51 items, which included essentially all imported raw materials required by domestic

industries. Free-list imports in 1964 accounted for about one-fourth of all imports into Pakistan *(see* Row 11, Table A-10 in Appendix A)[1]. This study is to explain and analyse this liberalization of Pakistan's import policy and to describe the process by which it came about.

A. THE IMPORT CONTROL SYSTEM PRIOR TO 1964

The dominant feature of Pakistan's import policy in 1963 (as throughout the previous decade) was that virtually *all imports were subject to licensing.* Furthermore, although tariffs were steadily increased throughout this period and were very high for certain goods (144 per cent for consumer luxuries in 1964) it is generally agreed that tariffs had essentially no impact on the volume or composition of imports. At the official rate of exchange, the excess demand for imports created such high internal prices that substantial (excess) profits could be made on imports even after covering all landed costs, including import duties and sales taxes (see Radhu [27 ; 28] and Pal [24 ; 25] for evidence supporting this statement). Consequently, all licences issued were utilized and the pattern of imports was dictated by the decisions and actions of the licensing authorities.

The Three Import Licensing Systems

Foreign-exchange expenditure is regulated by a high-level Foreign Exchange Committee which prepares the Foreign Exchange Budget (subject to the approval of the Cabinet), allocating available foreign exchange to the public sector or semi-public development corporations (PIDC, PICIC, IDBP), and to the private sector. Once these basic allocations are made, the actual detailed import decisions are affected by three distinct licensing systems.

Government Imports

Government imports are determined as part of the budgetary process itself. The various departments and agencies submit their import requests along with other expected expenses, and, within their final budget allocation, the import allotments are explicitly stated. (The Foreign Exchange Committee determines the amount of exchange to be allocated to each ministry [13, p. 52], although the actual government-account licences are issued by the CCI&E.) Government imports have ranged from 12 per cent (1951/52) to 56 per cent (1956/57) of total imports, but in recent years they have been about 30 per cent (Table A-l).

iThe sources for this and most other statistics used are given in the tables in Appendix A at the end of the paper. The amount of defenoe imports is not published and is, therefore, excluded from this study.

Capital Imports for Industry

Import policy for capital goods for industrial expansion, either by existing firms or new firms, is determined as part of the broader industrial policy of the country. This latter policy is reflected in the Industrial Investment Schedule which lists the industries in which investment will be permitted, and indicates the amount of investment to be licensed in each. The main agency interpreting the Investment Schedule and granting permission for investment (and capital imports) is the Central Investment Promotion and Coordination Committee (CIPCC), made up of representatives of the Central Government, both provincial governments, and the major semi-autonomous bodies[2]. Within the provisions of the Investment Schedule, however, certain sanctioning decisions are made directly by the Department of Investment Promotion and Supplies (machinery imports under the Bonus Scheme, for example) and by the two development banks, PICIC and IDBP, which channel foreign aid to the private sector. (Although the Chief Controller of Imports and Exports (CCI&E), in the Ministry of Commerce, actually issues the licences for these capital-goods imports, he does so automatically upon the authorization of one of these other agencies [13, p. 56].) Capital imports by private industry have been about 20 per cent of the total imports[3]. (Including government account, capital-goods imports have been about 45 per cent of the total in recent years[4].)

Consumer Goods, Industrial Raw Materials, and Spare Parts

The above two licensing systems have not been affected by the liberalization of imports. In fact, in recent years there has been an attempt to rationalize and extend direct controls over capital-goods imports, since this area of investment allocation is considered central to the whole planning process. It is in the third import licensing system, controlling essentially consumer goods, raw materials,

"CIPCC, "which has the Minister of Industries as its Chairman, meets almost every month under fhr> Chairmanship of Vice-Chairman, Investment Promotion and Supplies. It now comprises Additional Chief Secretaries (Development) and Secretaries, Industries, of the two provincial governments besides the Managing Directors of the two financing institutions, PICIC and IDBP; Vice-Chairman, Export Promotion Bureau; Director-General, Defence Purchase; Chief of Industries, Planning Commission; Controller of Foreign Exchange, State Bank of Pakistan; and Joint Secretaries of the Ministries of Finance and Commerce. Chairman of the two PIDCs and Managing Director, National Investment Trust, also attend the meetings as observers" [18, Foreword, p. iv], (For a detailed description of this system of sanctioning capital machinery imports for the private sector, *iee* [4].)

•>This is based on the data given in Tables A-1 and A-2. CCI&E licensing, discussed in the following paragraph, averaged 70 per cent of private imports during the four years, 1960/61 through 1963/64 (Table A-2). The most important component of the 30 per cent remainder has been capital goods, imported largely under various aid agreements. Since some of the CCI&E licensing has included capital goods (under the bonus-voucher system, for example) and some of the remainder has not been capital goods, it can be roughly estimated that about 30 per cent of private imports have been capital goods. Since private imports have been about 70 per cent ot the total (Table A-l), private capital-goods imports have been about 20 per cent of the total imports.

Capital-goods imports averaged 45 per cent of the total during the years 1960/61 through 1962/63. This is based on the data in Table A-3.

and spare parts, that a significant degree of import liberalization has occurred. This system, centred on the CCI&E, controls about 50 per cent of total imports[5].

Most discussion of import licensing in Pakistan has focussed on this CCI&E licensing system (and the present study also concentrates on this aspect of the problem), but the relative importance of this portion of the total licensing of imports has not been widely known or fully appreciated. It has often been treated as if it encompassed all imports. Although it has been the single most important component of licensing (and it certainly merits careful study), it has allocated only about 70 per cent of private imports or only about half of the total imports during the past few years (Tables A-1 and A-2). If defence imports were included in the total, CCI&E licensing would cover less than half of the total.

The basis of the CCI&E licensing system, as it existed in 1963, was set in 1952 when a crucial decision was made which largely determined the course of subsequent policy developments. In that year, a foreign-exchange crisis, caused by the rapidly declining prices of the two major exports (raw cotton and jute), and some speculative increase in imports under the free open general licence (O.G.L.) system, then in force, required a drastic and immediate reduction in imports. Although there were a variety of alternative methods for restricting imports, the decision was made to introduce a system of rigid and detailed import licensing, with the government determining for every six-month "shipping period" the total value of licences to be issued and the allocation of licences by commodity and by importer. The advantages attributed to this system of control were that it could definitely keep imports within any desired (or required) limit and, in the light of the extreme scarcity of foreign exchange, it gave the government the power to ensure the import of those goods deemed most essential. The effectiveness of licensing as a control over total imports can be seen in the decline of imports from 2,237.3 million rupees in 1951/52 to 1,383.6 million rupees (1952/53), 1,118.0 million rupees (1953/54), and 1,103.3 million rupees (1954/55) (Table A-1).

Many countries faced with similarly urgent problems have resorted to the same type of answer— detailed physical controls. In general, such controls are successful when the crisis is widely felt so that a cooperative spirit prevails, when they are administered with efficiency and equity, and when they are short-lived. When such controls persist for a long time, they do not keep pace with basic changes in the economy, blackmarkets develop, corruption and bribery

[5]The Chief Controller of Imports and Exports is generally the spokesman for the various authorities and departments which make the import decisions in this sphere of consumer goods, *etc.* Therefore, we shall refer to this as the CCI&B licensing system and we will let the CCI&E stand for the decision-making authorities in this system, although the Ministry of Finance and Ministry of Industries, as well as others in the Ministry of Commerce, are also involved. One weakness in Naqvi's description of the CCI&E licensing system is that he attributes too much authority to the CCI&E himself [13],

increase, and the goals of the control system are subverted. Pakistan's experience is in line with that of other countries and, to a large degree, the development of import policy during the past decade can be explained as an attempt to move away from rigid controls and to make the import policy more flexible and responsive to the needs of a developing economy.

One characteristic of this licensing "solution" to the foreign-exchange crisis was that at the official rate of exchange there existed a large excess demand for imports so that the internal prices were substantially above international levels. This price differential was not absorbed by government (through licence fees or import tariffs, for example), but rather it provided a source of excess monopoly profit to those who were granted import licences. In order to distribute licences quickly, efficiently, and with a minimum of corruption, it was decided that they would go to those firms importing during the two and one-half years prior to the cessation of the free OGL system. For each commodity a firm had imported, it was given a monetary "category" equal to its average imports per six-month shipping period during the base years. The amount of each item imported was controlled by changing the per cent of category for which licences were issued. These importers came to be called the "category holders" or "established importers" and the policy was referred to as the "category system"[6].

The interpretation of "essentiality" in the allocation of import licences was such as to give the lowest priority to consumer goods, particularly luxury items, and high priority to raw materials, spare parts, and machinery. This created a very protected and potentially profitable market for domestic production of consumer goods, with the highest protection given to the least essential consumer-goods industries. This protection, due basically to the pattern of licensing, was supported by the pattern of tariff duties. As shown in Table A-4, tariffs in 1965/66 ranged from lows of 34 per cent on machinery and equipment and 39 per cent on unprocessed raw materials to 180 per cent on consumer luxuries. Although all rates increased about 75 per cent during the past ten years, the pattern has remained the same (Table A-4), giving relatively more encouragement to the domestic production of less essential goods *(see* Soligo and Stern [30]).

Further, as noted above, the scarcity of all imported goods created large profits for the category holders which were available for investment. Thus, there occurred during the mid-1950's a rapid increase in industrial investment and output (in, for example, cotton textiles, tobacco, and sugar), which was primarily due to investment by importers who had funds, entrepreneurial ex-

6 Although a record of importing during the two-and-a-half-year period was thought to be a clear-cut and definitive method for allocating the valuable import licences, in fact it turned out to be quite difficult to determine who had imported how much during that period. Apparently, there were numerous cases where falsified letters of credit and customs receipts were presented as "evidence" of import performance during the base period. Given the profit to be made, such a result is not surprising. During the 1950's, much effort was expended by the CCI&E in ascertaining precisely who were legitimate importers,

perience and talent and who saw large potential profits in the protected consumer-goods industries *{see* Khan [8] and Power [26]). Whereas initially almost all imports were handled by "commercial" importers for resale, the new industrialists were granted "industrial licences" for their raw materials and spare parts so that they could import directly at the low world market prices, which further stimulated investment in industry.

The amount of commercial and industrial licences issued each shipping period, from 1954 to 1964, is given in Table A-2. Industrial licences increased from less than 100 million rupees per shipping period in 1954/55 to over 400 million rupees in 1962/63 and 1963/64. Prior to 1958, the value of industrial licences issued was less than that of commercial, but since January 1958 the reverse has generally been true.

This increasing import support to domestic industry is shown even more clearly in Table A-3, in which is given the composition of all imports (public and private) from 1957/58 through 1962/63. Imports of raw materials and capital goods increased 142 per cent during this period, from 1,192 million rupees to 2,886 million rupees. In 1957/58, these imports for domestic industry constituted only 58 per cent of all imports whereas in 1961/62 and 1962/63 they accounted for over three-fourths.

Although there was a pronounced bias favouring domestic investment in consumer goods, some intermediate-and capital-goods industries were stimulated by "backward linkage" and were protected from world competition by partial or complete bans on imports (and partly, by the general scarcity of all imports, including capital goods). Among these were industries producing paper, fertilizer, chemicals, petroleum products, basic metals, non-metallic minerals, and machinery[7]. In addition, some intermediate industries were stimulated by the export market: jute textiles and leather. However, the dominant impact of the licensing system Was to create a price-cost-profit incentive structure which encouraged consumer industries and discouraged investment in producer-goods industries, since the latter goods were relatively freely imported (at very low duties). The import policy of the 1950's thus stimulated development in the private sector, but it contained serious weaknesses which became increasingly important in the late 1950's and early 1960's.

[7]See Lewis and Soligo [11] for a carefully constructed statistical study which reveals a surprisingly high rate of growth in the intermediate and producer-goods industries during the 10-year period under review. Although a complete explanation for this growth is not known, it has taken place in the face of a general policy hindering growth in these industries, except for the derived demand created by the expansion of the consumer-goods industries. It is most probable that this growth is due to specific bans (or quotas) on the imports of competing intermediate (and capital) goods, which has "exempted" these industries from the general policy. As noted in the text above, bans and quotas have been a prominent feature of the import-licensing system.

Economic Weaknesses

The rapid growth of many domestic consumer-goods industries between 1954 and 1959 largely filled the vacuum existing in 1953 (created by the sudden drastic reduction in imported consumer goods), so that future growth depended essentially upon the general expansion of the economy and the rise in per capita income. Further, whereas there had been initially a brake on consumption expenditure caused by the restrictions on imported consumer goods, domestic consumption of Pakistani goods rose very rapidly [8] putting pressure on the resources available for investment. There emerged an increasing need for an economic policy designed, on the one hand, to retard the rate of growth of domestic consumer-goods industries and, on the other hand, to stimulate investment and production in export and producer-goods industries.

A second economic problem area related to "disparity" — the higher income and growth in West Pakistan *vis-a-vis* the more populous East Pakistan. While the nature and causes of disparity are complex, there is widespread agreement that during the 1950's the West Pakistan economy received about two-thirds of public and private investment and about the same ratio of total imports (Table A-7).

Import policy contributed to disparity in several ways. Perhaps the most important factor was the "category system" which granted the very valuable import licences to those who happened to be importing in the base period from January 1950 to June 1952. West Pakistanis were the most numerous and largest importers, and among East Pakistanis there were proportionately few Bengalis. Consequently, the profits earned tended to be invested in West Pakistan which had the additional important attractions of having the political capital, where the licensing authorities were located, and the major port in Karachi.

Once the disparity of growth pattern was established, then the import authorities were confronted with different "absorptive capacities" for imports in the two provinces. The greatest demand for imports of all kinds and the greatest "need" for intermediate and capital goods was in West Pakistan, and the import authorities responded quite naturally to these pressures, as shown in Tables A-5, A-6, and A-7. The allocation of commercial and industrial licences by the three major centres, Karachi, Lahore, and Dacca, is given in Table A-5 and Table A-6 for the years 1957 through 1964. The value of commercial licences issued to Karachi firms declined from about 45 per cent in the late 1950's to less than one-third (30.2 per cent) in January-June 1964. The West Pakistan (Lahore) share rose during this period from about 15 per cent to 28 per cent, and the East Pakistan share fluctuated from 32 per cent to 46 per cent, but remained about the same on the average. This shift within West Pakistan from Karachi to Lahore is probably the result of specific policies designed to divert commercial and industrial activity to the interior. For example, under

the OGL "newcomers scheme", discussed below, new importers from Karachi and other major industrial cities were excluded to facilitate the entrance of businessmen from smaller centres (who would receive their licences from the Lahore office of the CCI&E)8.

In the case of industrial licences, although there have been fluctuations from year to year, each of the three areas have received about one-third of the total, with Karachi's share usually being slightly higher.

This licensing pattern is, of course, mirrored in the actual imports as shown in Table A-7. During 1957-65, East Pakistan imported about one-third of total Pakistan imports (Table A-7, Column (5)). In 1957/58 and 1958/59, 36 per cent and 35 per cent of the total went to East Pakistan whereas in 1963/64 and 1964/65, the ratio was 33 per cent and 32 per cent, so that during this period the East Wing percentage declined somewhat. (Total volume of imports was rising sothat in absolute terms it increased in both provinces.)

Although in the past few years, the rate of growth in East Pakistan has increased, and is possibly even higher than that in the West Wing [9, Pp. 180. 182-183 ; 21, p. 11], disparity in income and in imports has continued to be a primary political and economic problem».

A third economic problem was that the official exchange rate overvalued the currency with the consequent disadvantages resulting from importers (and potential importers) being confronted with a price for foreign exchange which was less than its true opportunity cost. Two types of misallocations resulted. First, the licensing authorities were swamped with applications (for raw-materials, intermediate-goods, and capital-goods imports, which were not under the commercial category system), which they were inadequately staffed to process and evaluate. Since the large potential profits to the licence receiver could support substantial bribes, it is doubtful that all decisions were made on the basis of "social marginal products". Second, those who received foreign exchange at the low official rate were not motivated to economize as much as they would have been motivated at a higher, more realistic rate. Large firms were favoured relative to smaller ones, and since these large firms had relatively easy access to credit at low interest, there was a tendency for them to invest in capital-intensive projects with capital-intensive foreign equipment. This investment was not efficient in the light of Pakistan's factor proportions, nor was it conducive to

ssince "Lahore" firms may have actually been importing for the Karachi market, and/or Karachi firms may have been (illegally) buying the licences from Lahore "importers", this statistical shift within West Pakistan may not be significant. At least additional, supplementary evidence should be gathered before any firm judgment is made about the success of these policies.

»The dynamics of the disparity issue are quite similar to Myrdal's "spread" and "backwash" effects [12], For an analysis of disparity in investment allocation in Pakistan during the first-plan period (1956-61), *see* Eddison [5].

increasing employment (which has been a continual goal of Pakistani planning). Further, the import of foreign equipment at a price less than its scarcity value acted as an increasingly undesirable disincentive to the growth of the domestic producer-goods industry (which was being stimulated by the backward linkages noted above)[10].

The final economic problem to be noted here is that the monopoly position of category holders came under increasing criticism. Although there had been initially substantial reinvestment of their profits, their high incomes also were used for luxury expenditures, perhaps the most conspicuous being housing. In addition, many category holders had actually stopped importing, and were living on the income from the (illegal) sale of their licences. Further, with the growth of industry as a capitalistic-saving sector, there was less need to rely on commercial profits for industrial investment, so that a basic rationale of the category system was undermined. Finally, the growing industrial groups wanted more licences for direct import of raw materials as they found their licences, based on a one-shift output, to be inadequate, and they resented having to buy from the commercial category holders at the high internal prices. All of these factors crcatcd a climate in which some reform of the category system was essential.

Administrative Weaknesses

The basic administrative problem has been mentioned above — the licensing authorities lacked adequate staff and information to make wise priority decisions and to implement efficiently the decisions reached. The tasks involved were too numerous and too complex, with the result that many decisions were made which had adverse economic effects.

One difficulty was that import licensing was expected to accomplish too many diverse goals, some of which could be better served by other policy instruments. In addition to keeping total imports in line with total foreign-exchange availabilities, the licensing authorities were attempting: *i)* to maintain fair and stable internal prices of imported goods, particularly those essential (like food and medicines) and used by the "common man"; *ii)* to facilitate the development of new industries, and to permit the full-capacity output and expansion of existing industries by partial or complete bans on imports (tailored to the specific situation in each industry); *in)* to stimulate exports; and *iv)* to attain a better regional distribution of imported goods [13, Pp. 54-55]. In general, they wanted to ensure that the most "essential" goods were imported in the "proper" quantities, but there were different interpretations of "essential" and "proper".

lOSee Dcsprcs [3] and Haq [6, Pp. 39-49] for more extensive explanations of the allocative inefficiency of rigid licensing and the more general need to use factor prices which reflect scarcity values.

Not only were there conflicting goals but there was a lack of timely data and incorrect interpretation of the data available, so that the numerous detailed licensing decisions were often hastily made and ill-advised. Consequently, policies would be announced only to be later withdrawn or substantially qualified; certain imports were banned to protect domestic industry, only to discover domestic production to be totally inadequate in quantity or quality; initial licence decisions often permitted too much or too little importing for the maintenance of price stability; errors in judgment were often overcompensated for by a complete reversal of policy — too many imports in one shipping period resulting in a complete ban (and rapidly rising prices) in the next. Such changes in policy were not only disturbing to the commercial importers (who were naturally led to a speculative inventory policy which often accentuated price movements), but highly unpredictable changes in the list of eligible imports (as well as in the quantity of each) created serious difficulties for the industrial producer. On the one hand, he could never be certain whether competitive imports would suddenly be allowed, and on the other hand, he could not know even within wide limits the nature of future raw-material availabilities.

All of these problems were an inevitable part of the detailed controls system operating in an economy undergoing change and growth. Gradually criticism of the system developed to such a point that the stage was set for import liberalization.

Initial Steps toward Liberalization

Starting in 1959, the Government took several steps to meet some of the weaknesses in the import-licensing system. The Export Bonus Scheme of 1959 introduced, in effect, partial devaluation and (partial) multiple, flexible exchange rates (see Bruton and Bose [2] and Ahmed [1] for an explanation and analysis of this scheme). Exporters (of about one-third of the total exports) have received various rates, from 10 to 70 per cent above the official rate, and importers have paid approximately a 150-per-eent premium above the official rate. The licensing authorities have listed (and revised) the export items covered by the scheme, the bonus on each, and the items which are permitted to be imported. However, for those items specifically placed on the import-bonus list, the monopoly of category holders was broken, and importers have been free to buy any amount of bonus vouchers at the prevailing market rate and to readily exchange these vouchers for import-bonus licences. As shown in Table A-2, Column (5), about 10 per cent of the total of CCI&E licensed imports have been made under this scheme (about 5 per cent of all imports), so it can only be considered a very marginal liberalization, but it has served as a safety valve for domestic prices of particular goods that have been in short supply. Stimulated to a large degree by this scheme, export earnings during the Second Five-Year Plan (1960-65)

rose about 34 per cent, from a level of 1,799 million rupees in 1960/61 to 2,408 million rupees in 1963/64 [15]H.

In early 1961, a second step toward liberalization was taken in the form of a new OGL system. Under the new OGL, two basic changes were made in commercial licensing *{i.e.,* licensing to commercial firms who resell): i) newcomers were granted commercial licences, further undermining the monopoly of category holders; and *ii)* automatic repeat licensing was introduced. When an item was placed on the new OGL list, the category holders were permitted to continue importing it, but additional licences were given to new importers. The effect of this change was largely to redistribute the monopoly profits over a larger number of importers although it was also thought that competition was stimulated. In some specific cases prices did fall, but this was probably due primarily to the increase in licences issued, rather than the increase in the number of importers. Items placed on the new OGL list were generally those for which the CCI&E wanted imports to increase somewhat, and which tended to have relatively high internal prices and profits. Intermediate goods for industry dominated the list[12].

Repeat (or "automatic") licensing was a major administrative step toward making the amount licensed more responsive to market demand. Previously all licences were issued for six months, and errors in estimating beginning inventories and market demands were generally not corrected until the following shipping period. Under repeat licensing, a limited amount of initial licences is issued at the beginning of the shipping period, but upon showing proof of utilization of this licence, the importer can *automatically* get another licence for an equal amount. (The extent to which repeat licences continue to be issued depends, of course, on the available foreign exchange.) For those goods in which relative prices and profits are high, importers are greatly motivated to import quickly and get repeat licences. Thus, the composition of licences issued during the shipping period should have more closely reflected the internal demand and supply situation.

The data on the allocation of commercial licences to OGL newcomers and under repeat licensing are given in Table A-8, for the period 1961-64. Although initially the established importers dominated OGL, the importance of newcomers increased to two-thirds (65.38 per cent) of all OGL licences issued in the January-

i'Exports have also been stimulated by the little publicized schemes of "additional" import licences based on "export performance" *(see* [7J for a description of these schemes). Table A-11 presents the data on licences issued under these export-performance schemes, and shows that during 1962-64, they were *equal* in amount to the import-bonus licences. More study is called for to ascertain the true significance of this export-performance licensing.

12A Karachi price survey by Pal in 1964 [25] revealed an average markup of 58 per cent on OGL items, which was essentially the same as the average markup of 59 per cent for all items covered in the survey. This evidence suggests that OGL did not have much of a downward effect on prices.

June 1964 shipping period (Table A-8, Column (7)). Newcomers accounted for over half (51.79 per cent) of all commercial licences which, in turn, was about one-third of all CCI&E imports. (In other words, commercial newcomers were issued licences for over one-sixth of all CCI&E imports[a].) The big increase was in East Pakistan where OGL newcomers received in the January-June 1964 shipping period 150 per cent more licences than in January-June 1963 [17],

Automatic repeat licensing was also applied to some items remaining under the category system and to some imported by industries. Including OGL (to which repeat facilities were extended), all automatic licensing covered about 40 per cent of CCI&E licences and about 20 per cent of all imports (Table A-9),

The import bonus, newcomers, and repeat licensing schemes all contain elements of import liberalization; that is, they all introduce greater reliance on market forces in the allocation of imports. The quantitative importance of all these schemes together is shown in Table A-9. In the January-June 1960 shipping period, the only liberalized imports were those coming in under the Bonus Scheme, and they amounted to 12.8 per cent of CCI&E licensing. Prior to the free list, the bonus and OGL schemes were considered the main components of liberalization and (as shown in Column (7), Table A-9) import licences issued under these two schemes accounted for over one-third (37.4 per cent) of CCI&E licensing in July-December 1963. Including the automatic licensing extended to the category holders and to industrial licence holders (Table A-9, Columns (8), (9), and (10)), *import liberalization encompassed about half* (Column (11), Table A-9) *of CCI&E licensing just prior to the advent of the free list.* (This amounted to about 20 per cent of total imports in this shipping periodic.)

The Need for Further Liberalization

Although definite improvements had been made by 1963, as discussed above, many problems still remained. Perhaps the most critical of these was in the area of raw materials.

In determining the relative essentiality of imports, the licensing authorities apparently ranked capital goods as relatively more important than intermediate

"The magnitude of the newcomer scheme under OGL was not appreciated until the licensing data were made available by the CCI&E. It was widely assumed that the old category holders continued to receive the bulk of commercial licences and that the impact of the newcomers was only marginal. Naqvi, for example, writing in the Spring of 1964, stated: "Over 90 per cent of commercial licensing is still done within the category system" [13, p. 61],

An argument can be made that oil products (Table A-2, Column (3)) should be included with other liberalized imports. These were 12.2 per cent of CCI&E imports in July-Deoember 1963, which would bring the total pre-free-list liberalization to 60 per cent of CCI&E imports. The Oil Companies Advisory Committee (OCAC) estimates the demand for various oil products in each shipping period and, essentially, the government authorizes the issuance of licences equal to this estimate. Hence, import licensing is not restrictive in this case.

or consumer goods, since the expansion of capacity proceeded at a faster rate than the availability of imported raw materials, so that capacity utilization was declining. Although raw materials were, in principal, licensed on the basis of a single-shift capacity, most firms experienced shortages, and there was some evidence that many firms were not able to operate steadily even at one-shift capacity.

The essentiality ranking of the licensing authorities and the resulting shortage of raw materials set into motion a perverse "vicious circle". Firms were motivated to expand capacity to qualify for raw-material licences (and also to take advantage of profitable accelerated depreciation policies). The licensing authorities were, thus, confronted with excessive demands for imported capital goods, which "justified" their diversion of relatively more of the (limited) available foreign-exchange resources into capital goods and relatively less into raw materials. As a consequence, during the three years, 1960/61 through 1962/63, imports of capital goods increased 50 per cent, while imports of raw materials were essentially constant (Table A-3).

A concomitant of this situation was a thriving black market in imported raw materials. Although there was a general shortage, some firms had excessive licences for particular items because their output pattern had shifted, changing their requirements, or because the original licences were issued on the basis of inadequate surveys of the firms' needs. (Some firms had surplus licences granted under the very generous additional licences scheme based on export performance, but separate from the Export Bonus Scheme [7].) The blackmarket probably improved the allocation of raw materials, permitting firms to meet their most pressing requirements, but the licensing-cwm-black-market allocation mechanism was increasingly recognized as a highly inefficient one.

So strong was the bias in the licensing system toward capital-goods imports that not even rising foreign-exchange reserves led the authorities to increase imports of raw materials. Starting in October 1962, reserves rose 40 per cent by June 1963 and remained relatively high well into 1964. In spite of the rise in reserves, CCI&E licensing was cut back 12 per cent from July-December 1962 to January-June 1963 and, although total CCI&E licensing increased somewhat (7 per cent) in the next shipping period, industrial licences were reduced an additionl 5 per cent in July-December 1963. The cost of the rising reserves, although not precisely measurable, must have been quite high in terms of the output foregone due to the lack of adequate raw materials.

Although many of the problems discussed above remained unresolved, the primary one upon which attention focussed in 1963 was that of idle capacity and the volume and allocation of imported raw materials. The liberalization in 1964 was a bold attempt to move toward a solution of this problem.

B. IMPORT LIBERALIZATION IN 1964: THE FREE LIST

By the end of 1963, as indicated above, various import-liberalizing measures had been introduced which encompassed about half of CCI&E licensing (Table A-9). Yet, all of these measures still required the issuance of licences before import orders could be made, so that prior to 1964 virtually all imports were directly controlled by the import-licensing system. Because of the idle capacity, raw-material problem and other problems plaguing Pakistan's import policy, further import liberalization was widely discussed in both official and nonofficial circles. Although gradually there emerged from this discussion a general concensus that further import liberalization was desirable, there remained substantial disagreement on how this was to be done.

The Definition of Import Liberalization

In part, the debate at this time was the result of a fundamental disagreement over the meaning of "import liberalization". In the present study, the phrase is defined as "changes in import policy placing greater reliance on market mechanisms in allocating foreign exchange". Repeat licensing was intended, in part at least, to distribute licences in response to the pattern of internal money demands for the various goods. The import bonus system permits, in its sphere of influence, the cost of buying foreign exchange to rise to ration imports among competing uses (and users). In broader terms, import liberalization (in this study) means less direct, physical controls over imports and importers, and greater emphasis on indirect, fiscal and monetary controls to influence (and regulate) business decisions on whether, what, and how much to import.

There is another, entirely different meaning of "import liberalization" which is used by a substantial number of businessmen and officials: *more* imports. A "liberal" import policy is one under which a greater quantity of imports are permitted. Since more imports could be permitted under a rigid licensing system (by enlarging the amount of licences issued) or, alternatively, since tho same amount of imports could be allocated either by rigid licensing or by more indirect "market mechanism" controls, the two definitions are clearly distinct and separate. While there is essentially universal agreement that more imports are desirable (so in this sense almost everyone favours "import liberalization"), there has been (and continues to be) a lengthy debate about the nature and extent of controls over the allocation of imports.

The confusion surrounding these two definitions has been enhanced by the fact that, chronologically, the introduction and spread of "market mechanism" controls in the allocation of foreign exchange has coincided with the expansion of imports. The import bonus scheme was started in 1959 and the OGL newcomers programme and repeat licensing were added in 1960; both have steadily expanded since their introduction. During this same period, private-sector

imports, which averaged 533 million rupees during the two six-month shipping periods of 1959, rose quite steadily to 1,607.8 million rupees in July-December 1963, three times the 1959 level. Consequently, between 1959 and 1964, both types of "import liberalization" were taking place at the same time. It is certainly understandable how the definitional confusion arose and why it persists to the present time.

The simultaneous expansion of both types of "import liberalization" was no coincidence. In part, it was the result of the bonus scheme which directly linked a "market" system of import rationing (according to the willingness and ability to pay) to export bonuses. Exports have been greatly stimulated by this scheme [1; 2] and the increased foreign exchange has facilitated more imports.

More important, however, was that the increasing availability of foreign exchange between 1959 and 1964, due to the rising export earnings and more foreign aid, encouraged the import authorities to experiment with less direct and rigid controls, which expanded the area within which market forces could operate. With wry limited foreign-exchange resources during 1953-59, it was felt that rigid controls were essential to make certain that the most pressing import needs were met. With the greater availability of foreign exchange after 1959, this important rationale for the detailed direct control of imports was gradually undermined.

Although there has been this logical relationship between the two meanings of "import liberalization", they are conceptually distinct. In the remainder of the present study, the focus will be on import liberalization, defined as greater reliance on the market mechanism (influenced indirectly by fiscal and monetary policies) in the rationing of imports.

The Free List

Of course, the debate over further import liberalization was not due solely to the definitional confusion noted above. While there was an increasing desire in both business and government circles for the removal of onerous controls, this was tempered by the fear that freer-trade policies would not be consistent with the basic economic goals of keeping total foreign-exchange payments within required limits; encouraging and protecting domestic industry; and allocating foreign exchange so that the most essential goods are imported in the right quantities and are directed into desired geographical regions and into the proper industrial and consumer uses. Although there was widespread agreement on these goals (atvleast when they were stated in general terms), there existed some disagreement over whether they could best be attained by freer trade; and, even though the freer-trade forces were winning increasing support during the early 1960's, there was debate within these forces as to precisely which steps toward import liberalization should be taken and in what sequence. Some argued for

relatively "free trade", with a combination of devaluation of the rupee and higher tariffs to achieve the desired rationing of foreign exchange. Others maintained that continued liberalization within the licensing system, with gradual expansion of the new OGL, automatic licensing, and the import-bonus scheme would be the safest course to follow.

Out of this debate came the free list which was first announced in the import policy for January-June 1964:

> It has been decided to place M. S. Billets, Pig Iron, Tin Plate and Strips on free-list import against U.S. Loan without cover of any licence with immediate effect!'.

A basic change, thus, occurred in Pakistan's import policy: certain goods (four iron and steel items) were allowed to be imported *without licence.* This experiment with the free list was continued and expanded in the July-December 1964 shipping period when 50 additional items were added to the free list [23, July 2, 1964 and October 17, 1964], It was further reinforced in July 1965 when four more items were added and a very important change was made in the length of the shipping period, extending it from six months to one year [23, July 5, 1965], Although it was a compromise among many views, and there were many exceptions and qualifications, the free list must be ranked as the greatest single step toward import liberalization taken since the imposition of detailed, licensing in 1953.

Initially the free list, in January-June 1964, was financed by U.S. Aid, and imports were limited to U.S. steel. Expanded aid resources were thought to be adequate to meet the anticipated increase in demand for steel, so no restrictive changes in tax or credit arrangements were introduced. In essence, U.S. commodity aid in steel was financing a very limited experiment in "free trade". For imports other than steel, Pakistan continued its previous licensing policies, including expanded emphasis on the new OGL, import bonus, and automatic licensing. Imports under these three schemes increased from 432.3 million rupees in July-December 1963 to 666.5 million rupees in January-June 1964, a rise of over 50 per cent [14]. Including free-list imports of 354.8 million rupees [17], import-liberalization policies encompassed 1,021.3 million rupees of imports, over two-thirds of CCI&E imports (including free-list) for that shipping period 16, While this is a commendable continuation of the trend toward liberalization, the growth of the "old" methods of import liberalization made it appear that the free list was considered an additional method of liberalized imports, made

A11 import policies, and amendments thereto, are published in *The Gazette of Pakistan, Extraordinary* [231. The free list was first announced in the "Import Policy for January-June 1964", published in the *Gazette* of January 2,1964. (The above quote was on page 3.)

"Including oil imports of 117 million rupees, liberalized imports constituted 74 per cent of all CCI&E imports for January-June 1964. *See* footnote 14 above.

possible by expanded foreign-exchange resources, and that it was not considered a general policy which would replace some (or all) of the schemes previously used.

With the import policy of July-December 1964 [23, July 2, 1964 (amended and modified on October 17, 1964)], the nature of the government's interpretation of and commitment to the free list became much clearer. First, the list of importable items was expanded by 50 additional goods. Second, although the major part of the free list continued to be financed by foreign aid, Pakistan committed its own foreign-exchange earnings to finance 22 of the items, including one of the larger ones — maintenance spares — which encompassed about 3 per cent of free-list imports. (Iron and steel accounted for about 50 per cent of free-list imports, with the next most important items accounting for only about 7 per cent *(see* Table A-10.)'

In addition to this expansion of the list and commitment of Pakistan's foreign-exchange resources, a third significant change was made: fiscal and monetary policies were adjusted to help control foreign-exchange usage by indirect means, replacing to some degree the licensing controls that were being removed. Between 1959 and 1963, import duties rose by about one-third, with increases ranging from 11 per cent on certain processed raw materials to 115 per cent on semi-luxury consumer good *(see* Table A-4). Then, early in July 1964, the Ministry of Finance announced a "regulatory duty" on free-list imports [23, July 11, 1964], which ranged from 5 to 20 per cent *ad valorem* (almost all increases were either 10 or 5 per cent). Since the Pakistan sales tax is charged on a base including import duties, the increase in cost to importers was somewhat higher than the rise in the duties, and averaged out to about 13 per cent•?.

In June 1965, duties on capital machinery imports were increased 12.5 per cent *ad valorem,* from 12.5 per cent to 25 per cent in West Pakistan and from 7.5 per cent to 20 per cent in East Pakistan. In November 1965, a defence surcharge of 25 per cent of the existing tax rates was levied on both import duties and sales taxes. (All of these increases have been retained in the budget announced in June 1966.) Thus, the effective tax rate on imports has risen approximately another one-third since the advent of the free list, and stands about 75 per cent above the 1959-level when liberalization began *(see* Table A-4).

Supplementing the tax increases, credit controls were tightened somewhat by the action of the State Bank of Pakistan in July 1964. Upon opening a letter of credit to initiate payment for goods, an importer was required to make a 25-per-cent deposit. Further, once the goods arrived, the importer had to pay

•Radhu\s estimate, reflected in Table A-4, is 13 per cent for "processed raw materials for capital goods" and 14 per cent for "processed raw materials for consumption goods".

40 per cent of their value; that is, he could borrow only up to 60 per cent of the value of free-list imports[18].

Although these tax and credit changes might be considered only marginal adjustments in the light of the previous policies, they established a necessary precedent to the effect that direct controls cannot be meaningfully removed unless they are replaced by indirect controls to accomplish the desired objectives. In this instance, the mere removal of licensing would have led to an import splurge that could not have been financed; tax increases and credit restrictions served to restrict imports within necessary limits.

Table A-10 shows the imports of items on the free list (the six major items and the total) during the period immediately preceding the introduction of the free list and up to the end of 1964. These imports grew substantially, rising by 46 per cent from the last half of calendar year 1963 to the same period in 1964, while total imports increased by only 14 per cent (Row 8 and Row 9, Table A-10). The proportion of free-list imports rose from about 20 per cent to over 25 per cent of total imports (Row 11) (24, Pp. 556-557J. Of the 51 items on the list, steel accounted for about half, the six largest items accounted for over three-fourths, and the top 12 accounted for about 90 per cent of the total free-list imports in the last quarter of 1964. Eleven of these 12 are raw materials, and together they constitute the vast bulk of imported raw materials used by Pakistani industry.

It is generally agreed that domestic prices of free-list imports fell relative to prices of licensed imports. A study by Pal [25], mentioned previously, revealed that in Karachi, in the summer of 1964, the average percentage mark-up on the sale of licensed imports was about 60 per cent. (The percentage mark-up is the ratio of internal market price less landed costs to landed costs. Landed costs are all costs inclusive of tariffs and sales taxes.). A second survey by Pal [24] of Karachi and Chittagong prices in the winter of 1964/65 indicated that the percentage markup on all items had fallen to about 44 per cent (46 per cent in Karachi), and that for free-list items, it was down to 28 per cent. Although the overall price indices were rising during this period [15], the prices of free-list items fell about 6-7 per cent [24]. Although Pal's research produced the first published results on the price-cost relationship of imported goods, his conclusions were not unexpected; they confirmed the impression of many observers that the free list exerted a substantial downward pressure on prices.

As noted in the previous section, one of the major aims of the free list was to facilitate a solution to the idle (excess) capacity problem, which was widespread in the private industrial sector. Although there are no published studies on the

is *See* [22] for a presentation of the regulations governing imports under the free list, including credit controls.

use of capacity, there is agreement among informed observers that this goal of the free list was to a large degree achieved and that industrial production has increased markedly. Industrialists were able to get their raw materials more readily and more cheaply because they no longer had to buy from high-priced commercial importers and blackmarket sources. The free list permitted some industries to import directly, for the first time, so that they were better able to import according to their specifications, improving both quality and quantity of their output. Because of this factor, production could be planned in a more rational fashion and frequent shutdowns were avoided.

These favourable trends in imports, prices, and production seem to indicate that a primary objective of liberalization was achieved[1]!'. However, it could be argued that the short-run results could have come about through expanded licensing under OGL (or even under the category system), since they were primarily due to expanded imports of raw materials. The unique feature of liberalization is not more imports, but an import policy relying more on the market mechanism. Although this characteristic is very difficult to appraise, there is some evidence of positive results. Since free-list imports are essentially for the private sector, and since they rose from one-fifth to one-fourth of total imports, it might be concluded that the private scctor was stimulated and strengthened. Since there was more freedom of entry into the import trade, previous monopoly (or quasi-monopoly) positions were weakened or destroyed. Many smaller industrial firms, with few or no import licences, were particularly benefited since they now had easier access to cheaper raw materials. The business community, in general, noted (and in some instances, complained about) the increasing competition that came with the free list; they indicated that prices were reduced to meet this competition and that they tried to maintain profits by a larger volume of sales. Further, as stated above, the reliance on increased duties and restricted credit in lieu of licensing has been a most significant institutional change toward freer trade[20].

The free list had two surprising, or at least, interesting, effects *vis-a-vis* East Pakistan. The discussion of "disparity" in income between the two provinces, in Section II-A above, indicated that two-thirds of import licences (and two-thirds of imports) have gone to West Pakistan, probably because of its more rapid growth and greater "absorptive capacity". This type of analysis led many to expect that the introduction of freer trade would result in the continuation of this imbalance in imports or perhaps a further deterioration with even more

i»It is significant to note tliat the period of import liberalization from 1959-1965 coincided with a major increase in the growth rate of Pakistan's national income which rose at an average annual rate of only 2.4 per cent from 1949/50 to 1959/60, but increased at an average annual rate of 5.3 per cent from 1959/60 to 1964/65. Although one must be hesitant in drawing sweeping conclusions about the causal relationship, import liberalization was certainly one of the factors contributing to the improved performance of the economy.

'"Nevertheless, the free list has been a limited liberalization, as indicated below.

imports going to the West Wing. This expectation was *not* borne out by free-list imports during 1964 (Table A-10): East Pakistan received, on the average, 40 per cent of free-list imports and in the case of iron and steel, it received over half. While overall free-list imports increased 46 per cent, those in the East Wing rose 64 per cent. Although part of this was due to the fact that certain free-list items (such as cement) were restricted to East Pakistan, other factors were undoubtedly important. It may have been due to excessive inventory accumulation (recent evidence of which is that many factories continued to operate during 1965/66, despite severe cutbacks in imported raw materials). To some extent, it may be the result of the recent high growth rate in the East Pakistan economy [21, p. 11], which has brought about an enlarged "absorptive capacity" for **imports2i.** Regardless of the causes, this was a surprising, and apparently a pleasing, aspect of import performance under the free list.

A highly controversial effect of the free list has been its impact on the newcomers under OGL, particularly in East Pakistan, who were formerly importing the 51 items. As discussed above in Section II-A, OGL was very important to the Bengali businessmen because they had generally not been importing in 1950-52 and, therefore, they were largely excluded from commercial importing under the category system. After OGL was introduced in 1960, many relatively small businessmen were granted licences, and because of the scarcity conditions prevailing, these licences brought profit to their holders. Either they sold the licence, reaping the profit without importing, or they imported the goods and collected the premium prevailing between internal prices and landed costs.

When these items were placed on the free list, the unearned profit disappeared. While an obvious effect was one of income redistribution, in which the former OGL licensees were hurt, a side effect was to eliminate some (possibly many) of the newcomers from the import trade. With a valuable OGL licence, the newcomer was credit-worthy; he had no difficulty opening a letter of credit and importing. Without the licence, the newcomers have encountered difficulty in obtaining credit. Although there are no data to permit evaluation of the importance of this problem, the former OGL newcomers (particularly in East Pakistan) have been vociferous critics of the free list.

Overall, however, there seems to be widespread agreement that the economic effects of the free list were very favourable.

How "Free" is the Free List ?

As mentioned above, the free list is an import policy of "free trade" with qualifications and exceptions; and, while there are substantial reasons for

ziSince publio and semi-publio agencies are permitted to import under the free list *(see* **the end of Appendix B), their imports may partially explain the Bast Pakistan performance unde- the free list. Also, West Pakistan nonfree-list imports have been so high that, overall, East Pakistan has continued to receive about one-third of total imports (Table A-10). Consequently itisdifficulttoappraisethetruesignificanceoftheEastPakistan performance under the free lis ,**

believing that a significant step toward import liberalization was achieved, the qualifications are rather extensive[22].

There are five major restrictions surrounding the free list, which relate to: 0 who can import; *ii)* the geographical region into which the import can come; *Hi)* the country from which the import must be purchased; *iv)* the amount to be imported; and v) whether particular subtypes of goods can be imported and, if so, how much of each. In addition, as a result of these restrictions, problems of interpretation and administrative implementation have arisen which themselves have further limited the move toward import liberalization. For example, powdered milk was placed on the free list in July 1964 but within a short time the aid allocation was used up and the opening of letters of credit for the import of powdered milk was not allowed. Powdered milk remained on the free list but no one could import it. Some cases arose where there existed confusion as to what could be imported under specific headings. Under "scientific instruments", for example, it was argued by certain importers that insect spray guns should be allowed; ultimately, after some debate and delay, it was decided by the CCI&E that these were not intended to be included as "scientific instruments" under the free list. In other cases, imports of legitimate items were delayed until particular rulings had been handed down. (Although there were many examples of this type of problem, they have probably been reduced in number as a result of increased experience with the free list.)

While this line of argument leads to the conclusion that the 1965 Free List wasn't very "free", it must not be carried to the extreme. It has been an evolutionary change, rather than a revolutionary departure from the past, but it has been a change nevertheless; and on the basis of the reasons outlined in the earlier part of this section, one can justifiably conclude that a major step toward import liberalization has taken place.

III. SUMMARY AND CONCLUSIONS

One of the primary purposes of this paper has been to describe the institutional changes which occurred in Pakistan between 1959 and 1965 which, in the aggregate, have produced a liberalization of import policy that is probably unique among underdeveloped countries. There has existed some confusion about the meaning of "import liberalization", as well as about the nature and significance of its component parts. Hopefully, this study has shed light on these important questions by analysing the decline of direct controls and the rise of more flexible policies which permitted a greater play of market forces. Bonus-voucher imports, OGL, repeat licensing, free list, tighter credit, and higher duties have all played an integral part in this trend.

[22] *See* **Appendix B for a detailed description of the free-list restrictions.**

In describing this trend, emphasis has been placed on the quantitative side of import licensing and import liberalization, based on the data made available by the CCI&E in 1964 and 1965. Several major statistical points stand out and are worth repeating, ***i)*** CCI&E imports (essentially consumer goods, raw materials, and spare parts) are only about half of total imports. (The remainder are government purchases and private machinery imports.) ***ii)*** Prior to the advent of the free list, substantial import liberalization had already been achieved in the bonus scheme, OGL, and repeat licensing, which altogether constituted about half of CCI&E licensing in 1963 (or one-fourth of total imports). ***Hi)*** Because of the OGL scheme, over half of the value of all commercial licences were granted to newcomers in January-June 1964 (over one-sixth of all CCI&E imports), substantially undermining the "monopoly" position of the old category holders, ***iv)*** Whereas industrial licences were only about 37 per cent of CCI&E imports in the mid-1950's, they have grown to about 55 per cent in the mid-1960's. This change has further weakened the position of the established commercial importers (whose licences were less than one-sixth of CCI&E imports in January-June 1964). v) The free list encompassed about 25 per cent of total imports in 1964. Including bonus imports, OGL, and repeat licensing with the free list, total liberalization covered over two-thirds of CCI&E imports and about 35 per cent of total imports in 1964. ***vi)*** During this same period, that licensing controls were being reduced, the indirect controls of fiscal and monetary policy were being strengthened. Import duties were increased about one-third from 1959-63 and another one-third after the free list was introduced, so that altogether they have been raised, on the average, about 75 per cent above the rates prevailing in 1959. These facts highlight the quantitative dimension of import liberalization.

A qualitative evaluation of liberalization is much more difficult. There has not been a simple, straightline trend, with the removal of direct controls and the substitution of indirect ones. Rather it has been a complex and confusing movement and adjustment, with the introduction of new administrative policies (OGL, repeat licensing) which were still direct controls, but which were somewhat more flexible and market-oriented. Even the free list was not very "free", but was hedged in by numerous restrictions (and is even more restrictive in 1966).

This hesitant movement toward liberalization was due to various problems faced by Pakistani officials and planners; and it is necessary to briefly review these problems here not only to gain insight into the past development, important as that may be, but also because they still exist, to some extent, and frustrate further moves toward a more liberal import policy.

1) From the standpoint of government officials, perhaps the overriding problem is the maintenance of control over aggregate foreign-exchange expenditures. The removal of licensing requires an alternative form of rationing to

prevent imports from exceeding available foreign-exchange resources, and although tariffs and credit controls have been increased, they were not, and they are not, adequate to reduce demand to the available supply of foreign exchange. Because of this balance-of-payments gap, because of the uncertainties on the supply side (due partly to the unpredictability of aid), and because of the certainty of some capital flight on the demand side, the government has proceeded slowly on the removal of direct controls.

2) It is difficult to know what problem was the next most important, but from the number of restrictions scattered throughout recent import policies, it is probably "protection" (and encouragement) to domestic industry. That is, on grounds of basic industrial development strategy, export promotion, and import substitution, the government has encouraged (directly and indirectly) the development of a large number of firms in a variety of industries. Many of these firms cannot now compete in or against the world market at the official exchange rate of Rs. 4.76 per dollar. Thus, bans, quotas, and special licensing arrangements have been used to facilitate the birth and growth of these firms.

J) Closely related to the protection problem is that of "priorities". Investment in certain "essential" industries is less profitable than in other fields. Further, imported raw materials tend to flow to some very profitable "non-essential" industries. In an attempt to confine imported capital goods and raw materials to the "essential" industries, direct controls have been (and continue to be) utilized.

4) The disparity of income within and between the two provinces has been the source of the retention (and, in some cases, the expansion) of direct import controls. It is felt that the smaller, weaker firms, sectors and regions need special protection and encouragement.

5) Some of the direct controls over imports have been retained to ensure scarcity and adequate profitability, both to motivate investment and to provide funds for future saving and investment. Paradoxically, this "incomes policy" has tended to favour the rich, who are apt to save and invest and, therefore, certain controls fostering this incomes policy run counter to other controls imposed to distribute income more equally *(4* above).

6) Almost all aid and barter agreements are tied both in source and in commodities permissible for import. These agreements create the need for numerous import restrictions.

7) Finally, for certain goods, there are price differentials between Pakistan and neighbouring countries, particularly India. Because of Pakistan's import liberalization, many of Pakistan's prices are lower and, in some cases, substantially below those prevailing in India, which has led to smuggling (often associated

with capital flight, noted in 1) above. In order to reduce this smuggling, the government has imposed specific controls over which firms can import these "sensitive" items, and how much they can import.

Pakistan has made substantial progress toward import liberalization, but the pace and qualitative nature of this development have been heavily influenced by these seven problems. Theoretically, for most of them, there exist "liberal" solutions, including taxes, subsidies, and investment and credit policies. These policies could influence prices, costs, and relative profitability and, thus, motivate resource owners and users to act in accordance with planning goals, so that direct import controls would not be necessary. For example, a foreign-exchange auction would facilitate the removal of licences without risking a balance-of-payments crisis; a tariff policy could be developed which could serve the purposes of both protection and aggregate balance-of-payments control; an excise tax policy could be formulated which would discourage resources from being used in unessential industries by making them unprofitable, *etc.* In some cases, the difficulties may prove illusory and relatively easy policy changes might be made. (To some extent, the smuggling problem has already been solved by raising tariffs or putting the items on the bonus-import list; this increases the Pakistani prices and substantially removes the incentive for smuggling.) In most cases, the administrative and political problems in creating and implementing effective liberal policies will be sufficiently difficult that rapid progress in the withdrawal of direct controls cannot be expected. An analysis of these seven problems and alternative solutions is beyond the scope of the present study; but until additional research is done, and until indirect controls are developed and implemented to solve them, these problems inhibit further liberalization of Pakistan's import policy.

Pakistan has moved from an import policy relying almost completely on administrative controls to a policy mix which includes substantial elements of indirect controls working through the market. The question has never been one of controls versus uncontrolled free trade, but rather it has been what type of import controls would be most efficient in facilitating Pakistan's economic growth. The evidence reviewed in this study indicates that the trend toward liberalization has had favourable effects on prices and markups, and on production and utilization of capacity; the private sector was stimulated, particularly the smaller industrial firms. Although adequate evidence is not available to support a dogmatic conclusion, the facts suggest that the experiment with a liberal policy has been successful and that it should be continued and extended. Further progress, however, depends on solving the seven problems noted above. It is to these areas, therefore, that future research should be devoted.

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Appendix A

TABLE A-1

EXTENT OF GOVERNMENT IMPORTS, 1950/51—1963/64

(in million rupees)

Period (July-June)	Imports on private account	Imports on government account*	Total imports*	Col. (2) as per cent of Col. (4)
(1)	(2)	(3)	(4)	(5)
1950/51	1430.3	189.7	1620.0	88
1951/52	1962.8	274.6	2237.3	88
1952/53	936.2	447.4	1383.6	68
1953/54	735.1	382.9	1118.0	66
1954/55	922.2	181.1	1103.3	83
1955/56	989.8	335.3	1325.1	75
1956/57	1019.4	1315.1	2334.6	44
1957/58	939.7	1110.3	2050.0	46
1958/59	839.7	738.7	1578.4	53
1959/60	1682.0	779.0	2461.0	68
1960/61	2120.8	1066.9	3187.6	67
1961/62	2258.9	850.2	3109.1	72
1962/63	2799.8	1019.0	3818.8	73
1963/64	3191.4	1238.8	4430.2	72

*Defence imports are excluded. *Source:* [15].

TABLE A-2

PRIVATE IMPORTS: CCI&E LICENSING AND ACTUAL IMPORTS

{ill million rupees)

Period	Licences issued by the Chief Controller"					Actual private-sector imports	Col. (6) as per ccnt of Col, (7)
	Commer-cial	OCACb	Industrial	Bonus import	Total CCI&E licensing		
(0	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Jan,-June 1953				__	74.6		
July-Dec. 1953	_	—	—	_	309.8	—	—
Jan.-June 1954			•—	—	311.9	—	—
July-Dec. 1954	153.9		94.9	—	248.8	506.6	49
Jan.-Juno 1955	213.6	—	90.6	,,	304.3	415.6	73
July-Dec. 1955	221.7*	—	163.0c	—	384,7c	522.2	74
Jan.-June 1956	227,9	—	178.7	—	406.6	467,6	87
July-Dec. 1956	312.6	—	106,3rf	—	418.9<f	515,7	81
Tan.-June 1957	104.3	106.9	133.1	—	344,3	503.7	68
.Tiily-Dec. 1957	128.5	100,0	171.1	—	399,6	463.3	86
Jan.-June 1958	134.8	81.1	186,2	—	402,1	476.3	85
July-Dec. 1958	117.7	106.7	159.1	—	383.5	465.4	82
Jan.-June 1959	125.1	105.1	161.2	16.1	407.5	374.3	109
July-Dec. 1959	152.5	108.7	221.7	60,2	543,1	692.5	78
Jan.-June 1960	156.9	107.3	215.3	70,7	550.2	989.4	56
July-Dec. 1960	231.8	107.4	2.69.6	72.6	681.4	1088.4	63
Jan.-June 1961	358.6	65.2	311.1	73.4	808.3	1032.4	78
July-Deo. 1961	280.5	102,2	363.8	31.8	828,3	1076.0	77
Jan.-June 1962	294.3	110.5	463.8	83.3	951.9	1182.9	80
July-Dec, 1962	326.8	107.1	411,3	109,3	954.5	1535.4	62
Jan.-June 1963	233.2	108.4	402.2	91.3	835.7	1264.4	66
July-Deo. 1963	288.7	108.4	382.7	110,9	890.7	1607.8	55
Jan.-June 1964	498.8	117.1	432,0	126.4	1174.3*	1589.4	75

(>—) means not available.

"Although these figures are based on the data supplied by the Office of the CCI&E, they should not be considered "official". The CCf&E generously sanctioned the release and use of the licensing data readily available in his offices, but unfortunately (yet understandably), these data are not entirely internally consistent—the detailed figures and the total do not agree in every case, and in some instances, several different total figures were given. Throughout its history, the Office of tho CCI&E has been understaffed to handle the demands placed upon it, and this has been particularly true of the statistical sections. Data have been collected and worked up by hand (especially in the earlier period) and the office has been "short-handed". Data coming from the regional offices to the main office have not always been clearly defined, and on occasions they have been misplaced—either lost in transit or filed in the wrong place when the main office moved from Karachi to Rawalpindi, In spite of these problems, the CCI&E recognized the potential benefit to be derived from making the data available to researchers working on the licensing system, in particular, or import policy in general. Figures in this table are from the compilation of CCI&E data made by the Pakistan Institute of Development Economics (PIDE) [14]; although the data discre-

(footnate continued on next page)

TABLE A-3

COMPOSITION OF TOTAL IMPORTS*

(in million rupees at current prices)

Year (July-June)	Imports for domestic industry					Imports of consximer goods C*.	
	rJ> * A	RCr	RCj*	Rupees	As per cent of all imports (5H-(5)+{7)	Rupees	As per cent of all imports (7)-r (5)+(7)
(1)	(2)	(3)	(4)	(5) ;		(7)	(8)
1957/58	717	323	152	1,192	58	858	42
1958/59	629	300	165	1,094	69	485	31
1959/60	989	439	305	i,V33	70	728	30
1960/61	1,210	570	418	2,198	69	989	31
1961/62	1,460	468	453	2,381	77	729	23
1962/63	1,903	478	505	2,886	76	932	24

Source: {19, Table 1, p. 22J.

* Defence imports are excluded.

** CA — capital goods; RCA = raw materials for capital-goods industries; RCo ™ raw materials for consumer-goods industries; Co — consumer goods.

{from page 34)

pancies are not very great, they are under investigation in both the Office of the CCI&E and the PIDE, and it is possible that at some future date more accurate statistics will become available.

bOCAC imports are for the Oil Companies Advisory Committee, which has imported various oil products on behalf of all oil companies in Pakistan. These products have been listed separately in the CCI&E data and it is difficult to assign them under either the "commercial" or "industrial" heading,

'This includes revalidation of 35,1 million rupees due to devaluation of the rupee in July 1955 [17],

dThts excludes industrial aid amounts.

^Including 354.8 million rupees of free-list imports, the total was 1529,1 million rupees, or 96 per cent of total private imports.

Sources: i) Figures for the values licensed are from the unpublished records of the Office of the Chief Controller of Imports and Exports (CCJ&E). Except for July-Dec,, 1955, the data are taken from the PIDE compilation [14J.

it) Figures for actual private imports arc from the *Statistical Bulletin* [15 j.

TABLE A-4

AVERAGE RATE OF DUTY ON IMPORTED GOODS BY TYPES OF COMMODITY

Description	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/6<
Consumption Goods											
a) Essentials	35	35	35	35	35	55	55	55	56	56	70
b) Semi-luxuries	54	54	54	54	54	in	111	111	116	118	148
c) Luxuries	99	99	99	99	99	340	140	140	142	144	180
Raw Materials for Consumption Goods											
a) Unprocessed	26	26	26	26	26	27	27	27	30	31	39
b) Processed	43	43	43	43	43	50	50	48	*51*	65	81
Raw Materials for Capital Goods											
a) Unprocessed	23	23	23	23	23	2S	2S	28	31	32	40
6) Processed	38	38	38	38	38	40	40	39	42	55	69
Capital Goods											
a) Consumer durables	71	71	71	71	81	85	85	85	89	91	114
b) Machinery and equipment	14	14	14	14	14	17	17	17	17	22	34

Source: The figures for 1955/56 to 1964/65 are based on [27, Table VI]. *i* he 1965/66 column, except for machinery, is 25 per cent larger than 1964/65, reflecting the defence surcharge. For machinery, in 1965/66,12.5 per cent has been added to the figure for 1964/65.

TABLE A-5

COMMERCIAL LICENCES ISSUED BY AREA

(January 1957 to June 1964)

(per cent of total)

Period (1)	Type of licence	Karachi (2)	West Pakistan (3)	East Pakistan (4)
Jan.-June 1964	fOGL	30.87	28.90	42.24
	J Automatic	40.92	14.00	45.08
	] Others	26.59	10.56	62.84
	L Total	30,15	23.54	46.32
July-Dec, 1963	fOGL	32.38	27.04	40.57
	J Automatic	57.26	10.82	31.92
	1 Others	46,60	16.25	37.15
	L Total	36.03	24.37	39.60
Jan.-June 1963	f OGL	36.28	25,77	37.96
	) Automatic	77.12	5.13	17.75
	) Others	41.58	16.32	42,09
	[Total	41.26	21.71	37.04
July-Dec, 1962	fOGL	41.44	22.73	35.83
	J Automatic	78.92	3.11	17.96
	1 Others	32.09	14.26	53.65
	L Total	42.86	18.76	38.39
Jan.-June 1962	("OGL	37.98	21.21	40,81
	J Automatic	60.11	7.61	32,28
	"1 Others	30.91	11.43	57.66
	[Total	36.92	17.46	45.62
July-Dec. 1961	f OGL	37.09	19.41	43.49
	J Automatic	38.84	9.63	51.53
	Others	33.87	15.13	51.00
	1 Total	36.14	17.83	46.03
Jan.-June 1961	Total	40.92	12,76	46.32
July-Dec. 1960	Total	41.81	14.57	43.62
Jan.-June 1960	Total	47.55	20,31	32.14
July-Dec. 1959	Total	42.07	17.79	40.13
Jan.-June 1959	Total	48.93	15.27	35.81
July-Dec. 1958	Total	49,90	18.22	31.88
Jan.-June 1958	Total	48.81	18.27	32.91
July-Dcc. 1957	Total	49.25	17.77	32.98
Jan,-June 1957	Total	44,78	13,17	42.05

Source: **[14],**

TABLE A-6

INDUSTRIAL LICENCES ISSUED BY AREA
(January 19S7 to June 1964)

(per cent of total)

Period 0)	Karachi (2)	West Pakistan (Lahore) (3)	East Pakistan (4)
January-June 1964	37.71	29.39	32.90
July-December 1963	36.95	36.52	26.53
January-June 1963	45.01	30.27	24.71
July-December 1962	46.64	27.41	25.95
January-June 1962	36.49	32.57	30.94
July-December 1961	36.37	26.96	36.67
January-June 1961	37.46	24.37	38.16
July-December 1960	43.30	30,27	26.43
January-June 1960	36.27	32.11	31.62
July-December 1959	37.98	22.46	39.56
January-June 1959	46.93	30,45	22.62
July-December 1958	42.79	31.8?.	25.40
January-June 1958	39.59	33.83	26.58
July-December 1957	37.39	25.54	37.06
January-June 1957	40.59	30.49	28.92

Source: [14],

TABLE A-7

ACTUAL IMPORTS (PUBLIC AND PRIVATE) BY AREA
(1957/58 through 1962/63)

(in *million rupees)*

Period	West Pakistan		East Pakistan	
	Value	Per cent	Value	Per cent
(1)	(2)	(3)	(4)	(5)
1957/58	1,314	64	736	36
1958/59	1,025	65	554	35
1959/60	1,806	73	655	27
1960/61	2,173	68	1,015	32
1961/62	2,236	72	873	28
1962/63	2,800	73	1,019	27
1963/64	2,982	67	1,449	33
1964/65	3,672	68	1,702	32

Source: [15],

TABLE A-8

COMMERCIAL LICENCES ISSUED TO ESTABLISHED IMPORTERS AND TO NEWCOMERS

(July 1961 to June 1964)

Period	Type of licence	Commercial licences issued (*rupees million*)	Value licensed to			
			Established importers (*rupees million*)	Per cent of total (4)÷(3)	Newcomers (*rupees million*)	Per cent of total (6)÷(3)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
January-June 1964	OGL	395.0	136.7	34.62	258.3	65.38
	Automatic	5.8	5.8	98.63	0.0	1.37
	Others	98.0	8.0	100.00	0.0	0.00
	Total	498.8	240.5	48.21	258.3	51.79
July-December 1964	OGL	222.6	106.0	47.61	116.6	52.39
	Automatic	10.4	10.4	99.19	0.1	0.81
	Others	55.7	55.7	100.00	0.0	0.00
	Total	288.7	172.1	59.59	116.7	40.41
January-June 1963	OGL	158.4	94.0	59.33	64.4	40.67
	Automatic	21.5	21.5	100.00	0.0	0.00
	Others	53.2	53.2	100.00	0.0	0.00
	Total	233.2	168.7	72.36	64.4	27.64
July-December 1962	OGL	216.1	133.7	61.90	82.3	38.10
	Automatic	31.6	31.6	100.00	0.0	0.00
	Others	79.1	79.1	100.00	0.0	0.00
	Total	326.8	244.5	74.81	82.3	25.19
January-June 1962	OGL	182.2	109.1	59.89	73.1	40.11
	Automatic	14.8	14.8	100.00	0.0	0.00
	Others	94.3	94.3	100.00	0.0	0.00
	Total	281.4	218.3	74.91	73.1	25.09
July-December 1961	OGL	192.6	111.9	58.08	80.8	41.93
	Automatic	7.5	7.5	100.00	0.0	0.00
	Others	29.1	29.1	100.00	0.0	0.00
	Total	290.5	209.7	72.20	80.8	27.81

Source: [14].

TABLE A-9

IMPORT LIBERALIZATION, 1960-64

(in *million rupees)*

Shipping period	Total value licensed	Import bonus	OGL	Total Col. (3)-rCol. (4)		Automatic licensing			Total liberalization Col. (5)+Col. (9)	
				Amount	Per cent (6)-(2)	Commercial	Industrial	Total	Amount	Per cent (10)-r(2)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January-June 1960	550.2	70.7	—	70.7	32,8	—	—	—	70.7	12.8
July-December 1960	*682,9*	72.6	*	72.6	10.6	*		*	72.6	10.6
January-June 1961	509.3	73.4	*	73.4	9.1	*	39.5	39.5	112.9	14.0
July-December 1961	838.1	81.8	192.6	274.4	32.7	36.6	28.1	64.7	339.1	40.5
January-June 1962	949.1	83.3	132.2	265.5	28.0	14.8	214.3	229.1	494.1	52.1
July-December 1962	954.6	109.3	216.1	325.4	34.1	31.6	139.3	170.9	496.3	52.0
January-June 1963	835.5	91.3	158.4	249.7	29.9	21.5	97.9	119.4	369.1	44.2
July-December 1963	890.7	110.9	222.5	333.4	37.4	10.4	88.5	98.9	432.3	48.5

(—) means nil.
(*) means not available.

Source: [14].

TABLE A-10

GROWTH OF IMPORTS UNDER FREE LIST·

Some of the free-list items	July-September 1963			October-December 1963			January-March 1964		
	E.P.	W.P.	Total	E.P.	w.p.	Total	E.P.	W.P.	Total
0)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Six Largest Free-List Items									
1. Iron and steel	50.5	85.0	135.5	48.3	71.5	119.8	50.2	62.0	112.3
2. Chemicals	4.1	10.9	15.0	4.4	16.1	20.6	3.5	20.7	24.2
3. Nonferrous metals	4.4	10.1	14.5	2.5	12.3	14.7	2.1	12.2	14.3
4. Coaltar dyes	3.2	5.9	9.1	4.8	9.2	14.1	4.6	9.3	13.9
5. Life-saving drugs and medicines	.7	4.0	4.7	1.6	5.3	6.9	1.7	4.7	6.4
6. Maintenance spares	1.5	9.1	10.5	2.1	8.1	10.2	3.4	10.8	14.2
7. Total of six items	64.4	124.9	189.3	63.8	122.5	186.2	65.5	119.8	185.2
8. Total free list	75.6	145.2	220.9	105.6	149.2	254.8	114.9	139.1	254.0
9. Total imports	362.5	669.9	1,032.4	400.7	867.8	1,268.5	361.8	717.0	1,078.8
10. Row 7 as per cent of Row 3	85.1	86.0	85.6	60.3	82.0	73.0	56.9	86.1	72.9
] 3. Row S as per cent of Row 9	20.8	21.6	21.3	26.3	17.1	20.0	31.7	19.3	23.5

(Contd.y

TABLE A-10 — *(Concld.)*

Some of the free-list items	April-June 1964			July-Sepember 1964			October-December 1964		
	E.P.	w.p.	Total	E.P.	W.P.	Total	E.P.	W.P.	Total
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Six Largest Free-List Items:									
1. Iron and steel	44.3	76.4	120.6	68.5	132.4	200.9	97.5	93.3	190.8
2. Chemicals	8.1	12.9	21.0	7.1	12.4	19.4	8.4	14.6	23.1
3. Nonferrous metals	3.0	15.6	18.6	3.0	20.3	23.4	5.7	14.4	20.0
4. Coal tar dyes	4.9	9.1	14.0	3.5	7.7	11.1	6.4	13.4	19.9
5. Life-saving drugs and medicines	2.0	7.3	9.3	1.6	4.0	5.6	1.8	2.7	4.4
6. Maintenance spares	4.2	11.9	16.1	4.0	11.0	15.0	3.6	17.0	20.6
7. Total of six items	66.5	133.2	199.7	87.7	187.7	275.4	123.4	155.4	278.8
8. Total free list	109.0	161.4	270.4	130.0	211.1	341.1	167.2	186.5	353.8
9. Total imports	323.5	726.9	1,050.4	397.0	882.0	1,279.1	435.5	906.0	1341.5
10. Row 7 as per cent of Row 8	60.9	82.5	73.8	67.4	88.9	80.7	73.7	83.3	78.8
11. Row 8 as per cent of Row 9	33.7	22.2	25.7	32.7	23.9	26.6	38.3	20.5	26.3

•The "Free List" import figures represent the imports of the fifty-one items on the free list during July-December 1964. For example, the figures in Row 8 for July-September 1963 indicate the value of imoorts of the fifty-one items which later were placed on the free list, (This was Rs. 220.9 million out of total imports of Rs. 1,032.4 million.) Imports of these items expanded tinder the free list to Rs. 353.8 million in October-December 1964. However, the total free-list (Row 8) figure for July-September 1964 (Rs. 341.1 million) undoubtedly includes some imports ordered prior to July 1964 (and therefore, ordered under OGL) which entered Pakistan during July-September.

E.P. means East Pakistan: W, P. means West Pakistan.

Source: Planning Commission, unpublished table; derived from CSO data.

TABLE A-11

IMPORT LICENCES ISSUED TO EXPORT INDUSTRIES

(in million rupees)

Period	Request industries (established exporters)	Export industries (newer exporters)	Export bonus	Total	Export bonus as per cent of total
(1)	(2)	(3)	(4)	(5)	(6)
January-June 1962	7.2	80.5	83.3	171.0	49
July-December 1962	8.2	90.7	109.3	208.2	52
January-June 1963	10.2	67.9	91.3	169.4	54
1962/63	18.4	158.6	200.6	377.6	53
July-December 1963	11.3	81.9	110.9	204.1	54
January-June 1964	41.3	152.6	126.4	293.3	43
1963/64	25.6	234.5	237.3	497.4	48

Source: [14].

Appendix B

THE RESTRICTIONS SURROUNDING THE FREE LIST

The purpose of this Appendix is to describe the specific types of restrictions that surround the free list, and for this purpose references will be made to the July-1965 Import Policyi.

1) A major restriction is that only certain groups can import particular commodities; or, negatively, certain groups are prohibited from importing specific goods. Examples are given below:

a) "Some items, even though on free list, will be available for import by industrial consumers concerned only" (p. 172). That is, commercial importers, who might wish to import for resale, are excluded from importing certain materials on the free list. Proof must be offered to the CCI&E that the importer is a legitimate industrial user of the item concerned, and the imports must be used by the industrial importer: they cannot be resold (p. 186). One example is "Fire Bricks with alumina content of 40% and above" (p. 188). A more restrictive case is one in which imports are restricted to "only such industrial consumers as have been licensed for the items in the past" (p. 175). (Wire rods are one example.) Most of the iron and steel items have similar limitations, so that only those importers, industrial or commercial, who were importing in the past may import under the free list (Pp. 174-175).

b) Certain imports can only be made by "Resident nationals of Pakistan and such firms, business houses, and institutions in which major shares or controlling interests are held by resident Pakistan nationals" (p. 174). Examples of this are cement (p. 188) and coal (p. 190).

c) "Import of nylon twine (for fishing industry) under free list shall be confined to the following: *i)* Fishermen's Cooperative Societies; *ii)* Individual members of Fishermen's Cooperative Societies; *Hi)* Others on production of a certificate, either from sub-Divisional Magistrate or

iSpecifio page references in this July-1965 Import Policy [7, July 5, 1965] will be given in parentheses. Although this policy was never implemented, it contained an expanded free list of 56 items and it was the first 12-month policy. Thus, it probably enunciated the most liberal import policy since the beginning of rigid licensing in 1953

District Fisheries Officer or Deputy Director of the Marine Fisheries Department, that they were engaged in fishing" (p. 175).

2) A second type of constraint is that certain commodities can only be imported into East Pakistan, such as cement (p. 188), soda ash (p. 188), caustic soda (p. 189), "coal, other than for domestic use" (p. 190), and raw agarwood (p. 192) As might be expected, re-export of such items to West Pakistan is prohibited (p. 178).

3) In many cases, the geographical source is specified (generally due to aid agreements), such as follows :

a) Aluminium ingots and copper rods must be imported from Canada (p. 176).

b) "Soda Bicarb, soda ash and caustic soda . . . imports shall take place from U.K."(p. 177).

c) "Vats and soluble vats (dyestuff) . . . imports shall take place from West Germany" (p. 177).

d) Coal imports are limited to China (p. 177).

e) Cement (Grey) imports must be from China and Russia (p. 177).

/') Milk and eggs, many of the iron and steel items, and some other goods must be imported from the U.S.A. (Pp. 177 and 211).

g) "No import will, however, be permissible from Israel and South Africa" (p. 172).

4) An important type of restriction pertains to the amount of imports allowable:

a) "Minimum unit for import under Aid Loan from U.S.A. will be 5,000 U.S. dollars. No letter of credit shall accordingly be established for an amount less than 5,000 dollars and no shipment shall be affected for an amount less than 1,000 dollars per individual invoice" (p. 172). Very similar to this are many cases where both minimum and maximum limits are set (see b) below). There are still other cases where the exact amount is given: "Letters of Credit for import of cement into East Pakistan shall be opened at a flat rate of Rs. 25,000 each" (P- 175).

b) In many cases, importers under the free list are limited to an amount based on their previous licences, with an arrangement for additional

imports which is essentially identical to automatic licensing. One important example is the case of corrugated iron sheets and galvanised corrugated sheets. "The established importers shall be eligible to affect import of 100 % of their category with minimum unit of Rs. 25,000 and maximum of Rs. 1,00,000. OGL importers including newcomers, already admitted in iron and steel, shall be eligible to open letter of credit on the basis of Passbooks already issued to them by the regional licensing offices. They will be eligible to open further letter of credit on production of bill of lading relating to imports against their earlier letter of credit" (p. 175). This "automatic licensing" type of regulation also applies generally to all commercial importing firms with over 50 per cent ownership or control in the hands of non-Pakistanis (p. 174).

e) "Recognized industrial units which were licensed in the past for Nail Wire/G.I. Wire can open letter of credit at 10 % of their half-yearly entitlement as shown in their Passbooks for Nail Wire/G. I. Wire" (p. 175). There are many other cases like this one which parallel the old category system — an initial licence without repeat facilities; examples are maintenance spares (p. 191) and barytes (snow-white grade only) (p. 191).

d) Perhaps the most constraining of the quantitative restrictions on the free list was the use of quotas to limit the opening of letters of credit. Letters of credit for each free-list item under an aid or barter agreement had to be channelled through a designated commercial bank, which was given a quota by the State Bank for that item. This quota was based on the bilateral agreement, and when it was reached (as it was quickly in the case of few popular items for which relatively low quotas were assigned), the bank stopped opening new letters of credit and notified the State Bank. Depending on the foreign-exchange position, the State Bank decided whether to issue a new expanded quota. To some extent at least, the previous direct rationing of imports under CCI&E licensing was replaced by implicit rationing by the commercial banks and the State Bank for free-list items. (Since the import policy, announced in July 1965, was suspended before it was really implemented, this description of the quota system applies to the free lists of 1964/65, and also 1966.)

5) A final general restriction prohibits the importation of some goods and limits the amount of others:

a) Much of Annexure V of the July-1965 Import Policy (Pp. 217-223) is devoted to listing the specific items which cannot be imported even though the general type of goods are on the free list, For example, iron

and steel is the biggest single item on the free list, but import of the following items (and many others) is illegal: Structural—Angles upto 4"x4"x 1/2" in West Pakistan and upto 1-1/2" X 1-1/2" x 1/4" in East Pakistan; galvanized water/welded pipes of 3" diameter and below; hoops and strings; cast iron plates; and prefabricated structures. Similar lists of items excepted from the free list are given for nonferrous metals and ferroalloys, chemicals and pigments, dry colours and painters materials.

b) "Unless otherwise specifically permitted, second-hand or reconditioned goods or factory rejects will not be permissible for import" (p. 172).

c) The following goods can be imported within certain specified limits. *i)* In the case of chalk and clay, "not more than 20% of the value of the L/c (Letter of credit) in East Pakistan shall be utilized for import of China clay" (p. 188). *ii)* For chemicals, commercial importers opening L/c of Rs. 25,000 may import soda ash up to 4% of L/c value ... only" (p. 189). That is 96 per cent of the chemical imports must be in other chemicals than soda ash. *iii)* In dyeing and tanning substances, "recognized tanneries may import sulphonated oils for not more than 10% of the L/c value" (p. 189). *iv)* Under scientific instruments, "not more than Rs. 500 shall be utilized for import of clinical thermometers against individual letter of credit" (p. 190). And many other examples could be cited.

As noted in the text of this paper, these five points relate to: *i)* who can import; *ii)* the geographical region into which the import can come; *iii)* the country from which the import must be purchased; /i>) the amount to be imported; and v) whether particular subtypes of goods can be imported, and, if so, how much of each. In addition to these five areas, there are a miscellany of other points which should be noted in support of this general theme that the free list is definitely not a "free trade" import policy.

Amongst the less important "miscellaneous points" are the following two restrictions. "Import of items on free list will not be permissible by Air Freight" (p. 176). "Imports shall be affected at the most competitive rates and importers may be required at any time to submit documents for scrutiny concerning prices paid by them" (p. 179).

Perhaps somewhat more important is that "the Public and semi-Public Sector Agencies... .are allowed to open Letters of Credit under the Free List" [22, p. 1], Since these agencies were not under the CCI&E licensing system, but rather had (and have) their imports determined by other government rationing mechanisms2, it is very misleading to include their imports with those of the

•.*See* **the early part of Section II-A above for a brief description of the three seperate rationing systems.**

private sector in any attempt to appraise the extent of import liberalization. The free list releases importers from the necessity of having a CCI&E licence. Since the imports of the public and semi-public agencies were never under CCI&E control, to "release" them from such control is meaningless. Although they are now importing "under the free list", their imports are still determined by essentially the same rationing system as before. On the basis of available data, it is not possible to estimate the extent of free-list imports which are thus not really "free", but the earlier argument based on the quantitative importance of free-list imports *vis-a-vis* other imports is somewhat weakened.

Although by no means all of the free list qualifications have been stated in this appendix, a representative sample has been presented which supports the conclusion that the free list is definitely a limited import liberalization.

The Allocative Biases of Pakistan's Commercial Policy: 1953 to 1963

Syed Nawab Haider Naqvi

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The Allocative Biases of Pakistan's Commercial Policy: 1953 to 1963

Syed Nawab Haider Naqvi

The purpose of this paper is to examine the allocative biases of Pakistan's commercial policy with a view to determining its influence on the composition of domestic investment in the private sector.

Although because of the complexity of factors influencing investment decisions it is well-nigh impossible to isolate the role of commercial policy in shaping the composition of domestic investment, yet a study of its allocative biases *per se* can shed considerable light on the nature of this role. This is so because the import component of various investment projects is high in Pakistan and private-sector imports are, in turn, regulated by commercial policy.

The discussion in this paper is divided into four sections. The first section is devoted to certain preliminary matters regarding commercial policy in Pakistan. The second and third sections focus on the allocative biases of import-licensing and export-promotion policies, while the fourth section concludes the previous discussion.

It may be noted at the very outset that commercial policy regulates only private-sector imports which are about 75 per cent of the total imports. Imports on government account are regulated by separate arrangements.

I. BASIC CHARACTERISTICS OF PAKISTAN'S COMMERCIAL POLICY

Commercial policy in Pakistan is an amalgam of foreign-exchange control policy, import-licensing policy, and tariff and export-promotion policies. Exchange-control policy, administered by the Foreign Exchange Committee, regulates the total inflow and outflow of foreign exchange, and allocates the available

amount between the public and private sectors. Import-licensing policy, framed and implemented by the Chief Controller of Imports and Exports, concerns itself with allocating foreign exchange earmarked for the private sector among various uses and users. Both these policies, symptomatic of an overvalued rate of exchange, are essentially "rationing" devices influencing mainly the import sector.

The overvalued rate of exchange has, however, created serious problems for the export sector* Export-promotion policy, consisting mainly of the Export Bonus Scheme, is intended to grapple with these problems. Tariff policy, enforced by the Ministry of Finance, consists of import duties and export taxes. Though mainly used as a revenue-raising device, it is supposed to reinforce import-licensing and exchange-control policies.

Each of these policies, taken by itself, may influence the composition of domestic investment in the private sector. Exchange-control policy influences the composition of domestic investment in the private sector by having exporters surrender, at the unfavourable official rate, foreign exchange that they could sell at a much higher rate in the market. This is a hidden levy on the exporters. Likewise, importers "receive" a premium in the form of being able to purchase foreign exchange at a price below its scarcity value.

Import-licensing policy, with a few exceptions, perpetuates these allocative biases of exchange-control policy favouring importers, insofar as import licences are granted at the low official rate of exchange. In addition, it has far-reaching effects on the composition of imports and domestic investment. By varying the percentage of the foreign exchange allotted to various classes of importers, the Chief Controller of Imports and Exports influences the level and composition of consumption, production and investment in the economy.

Export-promotion policy, insofar as it is effective, tends to reverse the allocative biases of exchange-control and import-licensing policies: it subsidizes exporters at the expense of importers.

Tariff policy, though primarily used as an instrument of fiscal policy, has also been used to influence the composition of imports, by imposing higher duties on "luxury" (the so-called nonessential items) goods and lower duties on capital goods and "essential" goods.

How can, then, we determine the aggregate impact of all these "sub-policies" on the allocation of domestic investment in the private sector? At first sight it may appear that the effect of commercial policy is nothing but a summation of the effects of each of its "components" on resource allocation. But, on closer inspection, this turns out not to be the case. It can easily be shown that //there exists an excess demand for imports at the existing ratio of foreign to domestic

prices including import duties, and *if* imported goods are concurrently subject to both quota restrictions and tariffs, then import tariffs do not have a separate effect on resource allocation since the domestic prices of imported goods are set by quota restrictions alone. Import tariffs, then, have a purely revenue-raising function. This, by and large, has been the situation in Pakistan, at least in the fifties.

It follows from this argument that, when considering the allocative biases of commercial policy in Pakistan, we can neglect tariff policy. This leaves us with exchange-control policy, import-licensing policy, and export-promotion policy. However, the main impact of exchange-control policy on resource allocation in Pakistan is due to the overall "budget constraint" which it imposes on the level of imports rather than due to its allocative function, which is confined to allocating foreign exchange between the public and the private sectors of the economy.

In sum, the main allocative instruments of commercial policy in Pakistan are import-licensing and export-promotion policies. Exchange-control policy sets the overall limits within which these two policies operate, while tariff policy largely has a revenue-raising function.

In the light of these considerations the discussion in the succeeding sections is confined to an examination of the allocative biases of import-licensing and export-promotion policies.

II. THE ALLOCATIVE BIASES OF IMPORT-LICENSING POLICY: 1953-1963

The purpose of this section is to present a quantitative analysis of changes in the composition of import licences issued by the Chief Controller of Imports and Exports (CCI&E) in order to determine the allocative biases of import-licensing policy during the 1953-63 period.

It has been assumed throughout this section that the import licences issued by the CCI&E are fully used by importers. The basic reason for making this assumption is that because of the "scarcity" of foreign exchange there exists an excess demand for almost every class of goods at the current official rate of exchange. A recent study has shown that domestic prices of imported goods are, on average, about 60 per cent higher than their landed cost — that is, the *c.i. f.* cost *plus* import duty and sales tax [7]. Another evidence of this excess demand is the existence of a large premium on import-bonus vouchers!. As a result, importers have a strong incentive to fully utilize the import licences allotted to them.

i*See* also next section on Export Bonus Scheme. On the average, the market premium on import-bonus vouchers has been 150 per cent.

It may be argued that since import trade is largely concentrated in the hands of holders of "categories" and "quotas"[2] who have a monopoly in import trade, there is incentive for them to restrict imports to maximize their profits (or their importer's "rent", to be more precise). However, this incentive does not exist when, as is the case in Pakistan, importers are uncertain about the size of their import quotas from one shipping period to the next. Moreover, **imported**-goods can always be stocked. Thus, even though importers may withhold the supplies of imported goods from the domestic market to raise domestic prices in order to make still greater profits, there is no reason why they should not import. However, it would still have been interesting to compare the value of licences issued by the CCI&E with those actually used by importers; unfortunately, these data are simply not available[3].

Before we proceed to a quantitative analysis of the allocative biases of import-licensing policy, it will be useful to describe the techniques that we have used and note their rationale and limitations.

A Note on Techniques

The Classification Scheme; Our main problem was to classify a mass of unorganized data on import licensing[4] into an economically meaningful form according to standard usage. In order to do that, first, broad commodity groups like "food, drugs and medicine", "transport equipment", *etc.,* had to be established. For this, we adopted the Standard International Trade Classification (SITC) Scheme. However, some additional categories had to be created to include items that did not fit into the standard pattern. Second, we had to identify, cull, and aggregate scores of small but related items from the "received" data. Third, each of these broad commodity groups then had to be classified into four main commodity groups: consumer goods, raw material for consumer goods, raw material for capital goods, and capital goods—referred to hereinafter as C„ Rco, Rca and C. respectively. As a result of this rather tiresome exercise, the import-licensing data are available for the first time in a standard, economically meaningful form. This classification gives us an insight into the "workings" of import-licensing policy that could not be had by looking at the original data.

The Rationale of Our Classification Scheme: To bring out the characteristics of our classification scheme, it may be useful to contrast it with that used by the CCI&E's office. Broadly, they classify the import-licensing data into

2*See* **[4]. Up to 1959, these category-holders constituted a "closed" group since no new categories could be created. Although with the introduction of OGL, new importers are now allowed to import, import trade is still largely in the hands of "established" importers.**

3Some cases of the nonutilization if import licences have been reported in the past but these are exceptions.

•These unclassified data have now been published (mimeographed) by the Pakistan Institute of Development Economics. ***See*** **[6],**

"industrial", "commercial", and OCAC (Oil Companies Advisory Committee) licences. With the introduction of "automatic", "OGL", and "request-basis" licences in 1960, the import-licensing data under "commercial" and "industrial" groups are further broken down by these subgroups. Moreover, the import licences issued against import-bonus vouchers are separately given since 1959, when Export Bonus Scheme was introduced[5].

This classification, although useful for understanding the structure of import-licensing system, is based on the division of importers into industrial and commercial importers — that is, it is a sort of an "institutional" classification; whereas what we need for our purposes is a "functional" classification.

The greatest danger in using the "institutional" classification for our present purposes — that is, to study the allocative biases of import-licensing policy — is of misleading associations. For instance, the general impression that the term "commercial" licensing may give is that it stands for consumer-goods (C_o) *imports*, while the term "industrial" licensing may be taken as synonymous with the imports of R^, Rca and C_a, but actually this is not so. These terms stand for imports made by commercial and industrial importers, and the same commodity may be, and is, imported by both classes of importers.

To illustrate this point, the import-licensing data have been classified on both patterns for eleven shipping periods from July-December 1954 to July-December 1959 in Table I belowC.

TABLE I

PERCENTAGE DISTRIBUTION OF C_o, R_{co}, Rca AND C_a INTO COMMERCIAL AND INDUSTRIAL LICENSING: 1954-1959

Import category	July-December 1954			July-December 1959			Net change in 1959 over 1954		
	Commercial	Industrial	Total	Commercial	Industrial	Total	Commercial	Industrial	Total
Consumer goods (Co)	88	12	100	60	40	100	—28	+28	
Raw material for consumer goods (Rco)	36	64	100	44	56	100	+ 8	—8	
Raw material for capital goods (Rca)	95	5	100	95	5	100			
Capital goods (Ca)	23	77	100	28	72	100	+ 5	—5	
Average:	62	38	100	53	47	100	—9	9	

Source: Computed from the data provided by the CCI&E *[6],*

sfor a description of each of these type of licences, *see* [41.

6for details, *see* [5].

It can be seen from Table I that although the percentage share of industrial licensees in total licensing increased by 9 per cent, and that of commercial licensees fell by an equal amount over the 1954-1959 period, this was *not* associated with an increased share of industrial licensees in Rco, Rca and C„. As a matter of fact (contrary to what one may guess), whereas the relative share of industrial licensees in the C0 group increased by 28 per cent, it decreased in the rest of the three categories.

This highlights the danger inherent in using a purely "institutional" classification for studying the allocative biases of import-licensing policy. Only a "functional" classification like ours, which disregards the agencies responsible for importing particular types of goods but concentrates on the composition of import licences and changes in them over time, can shed light on our problem.

The Limitations of the Study

It may be noted here that our classification scheme covers a period of only seven years, or fourteen shipping periods. The reason for this is that the breakdown by commodities of import licences issued to both industrial and commercial licensees is available only up to 1959. For the period 1960-63, the industrial-licensing data are available broken down by industries, whereas the commercial-licensing data are on the basis of commodities imported.

For this reason, a different classification scheme had to be adopted for licences issued to various industries after 19597. Here we have followed, with minor additions, the industrial-classification scheme suggested by Chenery. Industries have been classified, first, into broad industrial groups like "food manufacturing", "paper manufacturing", and so forth, and then each of these industries has been classified into three classes: "consumer-goods", "intermediate-goods", and "investmcnt-and-related-goods" industries. Here, again, we were faced with the problem of regrouping over two hundred small industries into thirty-six standard industrial groups, and then into the three groups mentioned above. The period covered is 1957-63. The data on commercial licensing for the 1960-63 period have been classified according to the SIT Classification that was used for the period 1953-59. Although these two classification schemes do throw additional light on the "functional" characteristics of industrial and commercial licensing for the 1957-63 period, we still cannot get the "unified" picture of the working of import-licensing policy that we have for the 1953-1959 period. For this reason, we have divided our analysis into *i)* 1953-1959 for total licensing, including commercial, industrial, and OCAC licences, *ii)* 1957-1963 for industrial licensing[8], and *Hi)* 1960-1963 for commercial licensing.

TSee **II; 2; 3].**

8The data on industrial licensing by industry breakdown are available since 1957.

Finally, it will be noted that we have not related changes in the licences issued for various items to such economic magnitudes as actual imports and domestic production. The reason for this is that it is nearly impossible to establish any such meaningful relationship. For instance, in the case of actual imports, there is almost the insoluble problem of finding a suitable "lag" between import licences issued and actual imports. Furthermore, actual import data are not available in published form with the same breakdown as is used in the import-licensing data. Also, our import-licensing data are limited in coverage to private-sector imports. (The imports made on government account fall outside the purview of import-licensing policy.) Furthermore, imports of machinery under various aid agreements, which come to about 15 per cent of total imports, are also not covered by our data. This means that our figures regarding import licences issued for capital-goods imports are, in effect, underestimates. This must be borne in mind in interpreting our results.

It may also be noted that we have not given a further breakdown of the licences issued by the CCI&E into "cash" licences and "aid" licences, because we are concerned with the composition of total licences, irrespective of the agencies to whom they are issued, and irrespective of whoever (Pakistan or the United States or any other country) provides the foreign exchange to "back" these licences. For this reason, we have presented an "aggregated" picture of import licences issued in this period.

The Allocative Biases of Import-Licensing Policy: 1953-1959

The broad results of our study are given in Table *II. Two* main characteristics of the data presented here are i) the sharp fluctuations in the relative shares of our four main commodity groups *(see* Figure 1), and *ii)* a gradual decline in the relative share of consumer goods in total licensing. There are occasional sharp upswings in the share of this group, as in the shipping periods July-December 1955 and January-June 1956, caused by heavy imports of food and cotton textile, but the general trend is downward. A still greater decline occurred in the licences given for importing Re. On the other hand, the relative shares of R„ and C. have increased over the period.

A clearer idea about the direction of change in the relative shares of our four main commodity groups can be formed by comparing the beginning and the end points of this periods.

It can be seen that whereas Co and R„ together claimed 43.4 per cent of total licences in 1953/54, their relative share in total licensing had declined to only 28.0 per cent by 1958/59. By contrast, the relative shares of C. and R„ increased over the same period. Also, the sharpest decline occurred in R„, whilst the greatest increase occurred in Rc.

9This procedure of comparing the beginning and the end points to measure changes over a period of time, though statistically crude, is quite legitimate for our purposes.

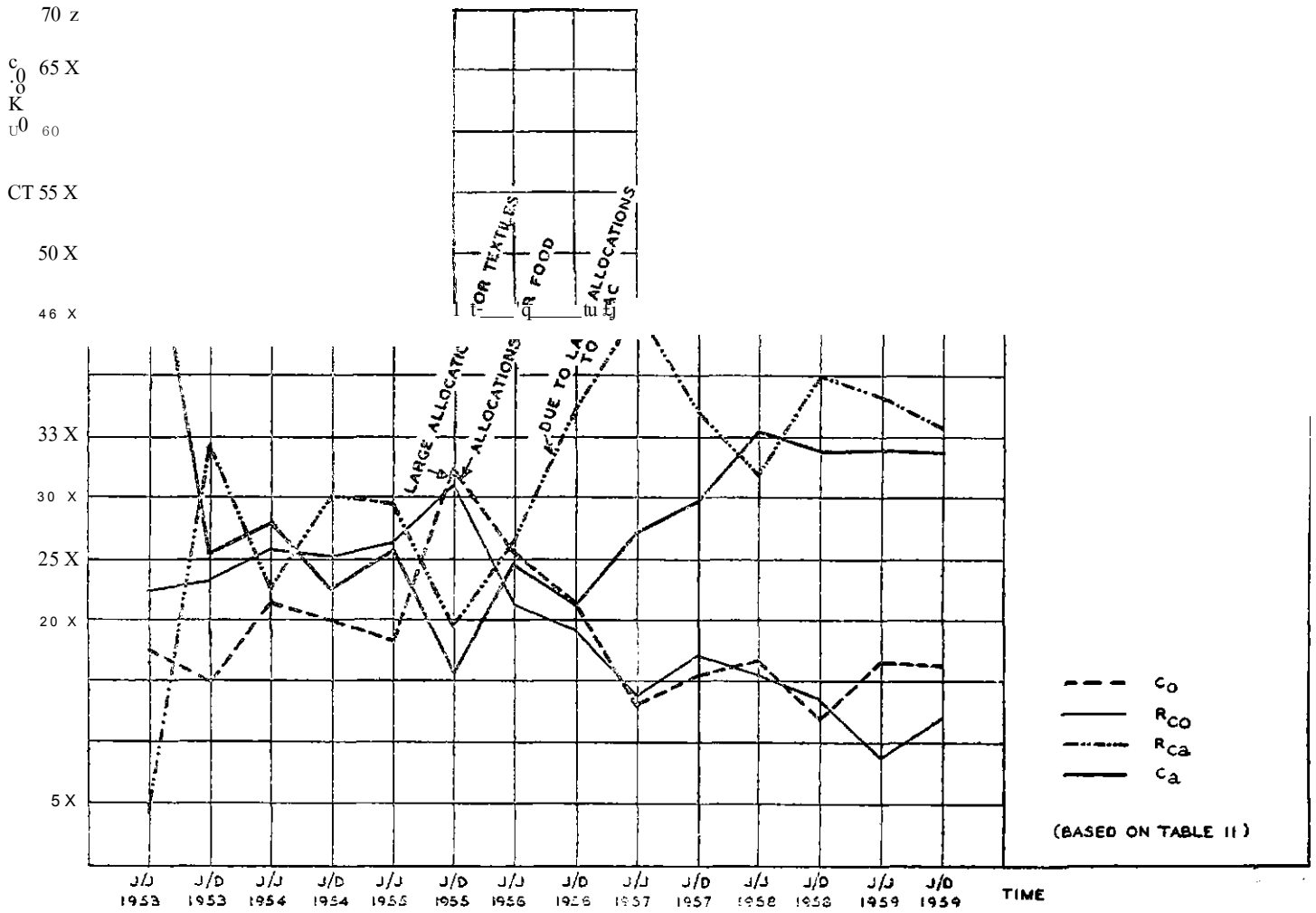

Figure 1. Fluctuations is the Relative Shares of Co, C co, Rca and C, Group of Commodities in Total Licensing (Industrial *plus* Commercial *plus* OCAC) 1953-59

TABLE II

CLASSIFICATION OF IMPORT LICENCES ISSUED (INDUSTRIAL . COMMERCIAL, AND OCAC) DURING 1953-1959

(in percentage terms)

Import category	j J-J 1953	J-D 1953	J-J 1954	J-D 1954	J-J 1955	J-D 1955 (heavy textile)	J-J 1956 (heavyfood-grains)
Consumer goods (Co)	17. S	14.9	22.0	21.0	18.2	32.1	25.9
Raw material for consumer goods (Rco)	22.6	23.9	26.0	25.7	26.3	31.6	21.23
Raw material for capital goods (Rca)	5.4	34.4	24.0	30.4	29.4	19.8	26.5
Capital goods (Ca)	45.2	26.8	28.0	22.9	26.1	16.6	26.4

Import category	J-D 1956	J-J 1957	J-D 1957	J-J 1958	J-D 1958	J-J 1959 (due to sugar)	J-D 1959 (due to sugar)
Consumer goods (Co)	21.3	13.0	15.0	16.6	12.3	16.6	16.4
Raw material for consumer goods (Rco)	19.8	14.1	17.2	15.7	13.5	8.9	12.3
Raw material for capital goods (Rca)	37.2	45.5	37.4	32.2	40.1	38.3	36.6
Capital goods (Ca)	21.7	27.4	30.2	35.5	34.1	34.2	34.7

Note: J-J stands for January-June shipping period.
J-D stands of July-December shipping period.

Scurce: Computed from the data provided by the CCI&E [6].

TABLE 111(a)

RELATIVE SHARES OF BROAD COMMODITY GROUPS (C R,., Rca and C) IN THE IMPORT LICENCES (COMMERCIAL, INDUSTRIAL, AND OCAC) ISSUED BY THE CCI&E: 1953/54-1958/59

(as percentages of total licensing)

Import category	1953/54	1958/59	Net percentage difference
Consumer goods (Co)	18.5	15.0	—3.5
Raw material for consumer goods (RCo)	24.9	13.0	—11.9
Raw material for capital goods (Rca)	28.9	37.2	+ 8.3
Capital goods (Ca)	27.7	34.8	+ 7.1

Source: **Based on Table II 1(b) in the Appendix.**

It will be interesting to see the "sources" of these changes. For this, we look at the behaviour of the individual "components" of each of the four commodity groups. This has been done in Table II 1(b) in the Appendix. In the C0 group, there is an all-round decrease in the share of each of the component items, except for small increases in "food", "drugs and medicines" and the "miscellaneous" items. The heaviest decline occurred in "stationery and related items", followed by "textiles and clothing" and "cigarettes".

Also the relative "weights" of different items changed over the period. In 1953/54, "drugs and medicines", "stationery and related items", "textiles and clothing", "food" and "cigarettes and tobacco" ranked highest in the CQ group, in that order. By 1958/59, this order had changed: though "drugs and medicines" still ranked the highest, the share of "stationery and related items" declined sharply. "Food" and "textiles" stood next to "drugs and medicines". It may also be noted that whereas in 1953/54 the six items noted above accounted for 88 per cent of the total licences issued to the CG group, in 1958/59 they accounted for a little over 78 per cent. It shows that, as compared with 1953/54, import licences were more "thinly" distributed among a number of smaller commodities.

In the Rco group, it can be seen that the sharp decrease in the licences issued to the "silk, cotton, yarn and thread" group (from 10.84 per cent of total licensing in 1953/54 to 1.95 per cent in 1958/59) was the main factor responsible for the large decline in the relative share of the R„ group in total licensing. The other "notables" in this downward trend in the R„ group were "chemicals and gas", "dyes, paints and varnishes" and the "miscellaneous" subgroups.

The sharp increase in the relative share of the Rca group in total licensing was wholly due to the large "gains" registered by the "brake fluid and oil" group. (This includes allocations to the OCAC for imports of motor spirit and petroleum.) Other items registered a decline.

The increase in the relative share of the Ca group in total licensing has been due mainly to higher allocation of import licences to the import of "metal products" and "transport equipment".

The Allocative Biases of Industrial-Licensing Policy: 1957-1963

As pointed out in the subsection on techniques above, our classification scheme could not be carried up to 1963 because from 1960 onward the data on import licences issued to industrial licensees are not given by the commodities imported but by industries. It could not be ascertained which industry imported what. Hence, a different scheme had to be adopted, which classified industries into three broad groups: consumer-goods industries, intermediate-goods industries, and industries producing investment and related goods. The results of our classification are given in Table IV.

We note, first, that there are considerable fluctuations in the licences issued to each of our industrial groups. Secondly, the relative share of consumer-goods industries in total industrial licensing gradually declined over time. In contrast, the relative share of investment-goods industries gradually increased over time until it outstripped that of consumer-goods industries in July-December 1963. Third, the share of intermediate-goods industries, after a continual decline from January-June 1958 to January-June 1962, increased continuously afterwards *(see* Figure 2).

This can be seen more clearly by comparing the beginning and the end points of this period.

It will be noted that, during the period under review, a radical shift had occurred in the relative positions of the three industry groups. By 1963, the investment-goods industries had taken the place of consumer-goods industries as the biggest holder of industrial licences. The share of intermediate-goods industries had also improved by 1963.

This downward trend in the relative share of consumer-goods industries is mainly attributable to a relative decline in importance of cotton-textile industry over time, as the early tempo of import-substitution in cotton textiles tapered off.

It is interesting to study the behaviour of the "components" of each of these industrial groups. This is done in Table VI. Here we have selected five top industries from each group (which together account for 80 per cent of total industrial licensing) for study.

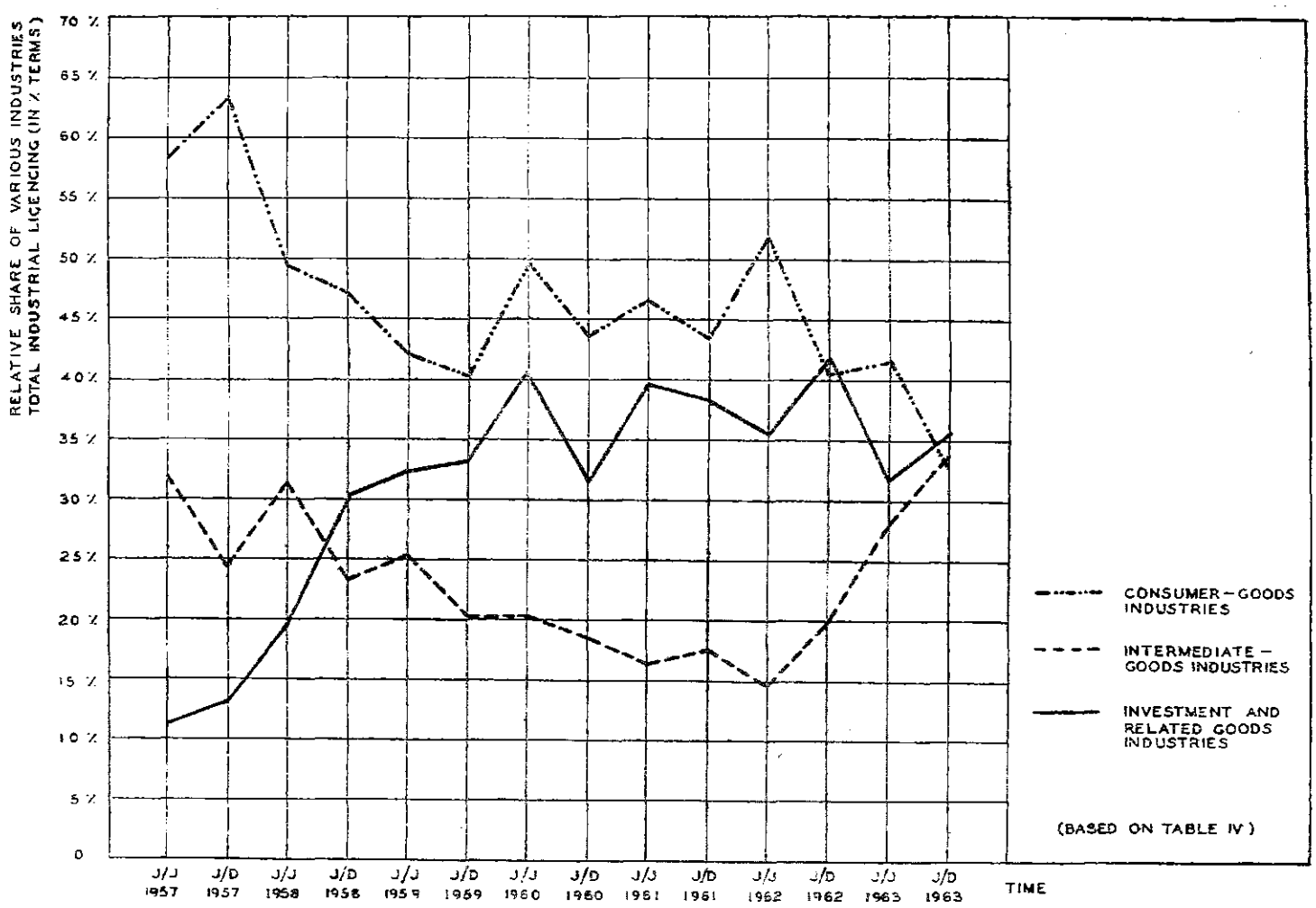

Figure 2. Fluctuations in the Relative Shares of Consumer-Goods, Intermediate-Goods, and Investment-Goods Industries : 1957-63

TABLE IV

RELATIVE SHARE OF CONSUMER-GOODS, INTERMEDIATE-GOODS, AND INVESTMENT-GOODS INDUSTRIES IN INDUSTRIAL LICENSING

Import category	J-J 1957	J-D 1957	J-J 1958	J-D 1958	J-J 1959	J-D 1959	J-J 1960
Consumer goods	57.9	62.9	49.1	47.1	42.0	39.9	48.9
Intermediate goods	31.9	24.1	31.5	22.7	25.4	20.1	20.0
Investment and related goods	10.2	12.9	19.5	30.1	32.7	40.0	31.1

Import category	J-D 1960	J-J 1961	J-D 1961	J-J 1962	J-D 1962	J-J 1963	J-D 1963
Consumer goods	43.0	46.1	43.45	51.28	39.79	41.54	31.59
Intermediate goods	17.8	15.9	16.65	13.78	19.06	27.30	33.01
Investment and related goods	39.2	37.0	39.90	34.93	41.15	31.16	35.37

Note: J-J refers to the January-June shipping period.
J-D refers to the July-December shipping period.

Source: Computed from the data provided by the CCI&E [6].

TABLE V

CHANGE IN THE RELATIVE SHARE OF CONSUMER-GOODS, INTERMEDIATE-GOODS, AND INVESTMENT AND RELATED-GOODS INDUSTRIES IN TOTAL INDUSTRIAL LICENSING DURING 1957-1963

Import category	<n<;i 1957	1963	Change in 1963 over 1957
Consumer goods	60.4	36.6	—23.8
Intermediate goods	28.1	30.3	+ 2.2
Investment and related goods	11.5	33.1	+21.6

Let us first look at the changes in the distribution pattern of industrial licences among these 15 industries. The relative share of consumer-goods industries in total industrial licensing has followed a downward trend over the period. The one significant exception has been the "soap, perfumes, cosmetics, *etc.",* industry group, whose share in total industrial licensing increased from 5.1 per cent in 1957 to 8.4 per cent in 1963. Another thing to note is the change in the relative positions of the individual industries in the consumer-goods group. In 1957, the textile industry's share was the highest in the consumer-goods group; but by 1963 it had slipped to a third position. On the other hand, the "soap, perfumes, *etc."* group, which occupied fourth position in this group in 1957, claimed the highest share in 1959. The "edible-oil" industry whose share was insignificant in 1957 ranked fourth in 1963.

In sharp contrast to the downward trend in the relative shares of the consumer-goods industries is the general increase in the share of every industry in the "investment-goods" group. The sharpest increase occurred in the "basic-metal" industries — from 1 per cent in 1957 to 7.7 per cent in 1963. However, the relative positions of various industries in this group remained pretty much the same: the "transport-equipment" and "electrical-equipment" industries, occupying first and second positions respectively in 1957, continued to stay there in 1963. The only change was a reversal in the relative positions of "non-metallic" (from third to fourth) and "basic-metal" industries (from fourth to third). The "metal-product" industry continued to retain the fifth position.

The relative share of intermediate-industries group remained practically unchanged. The most significant "events" in this group are: /) a considerable decline in the share of the "weaving, spinning, *etc."* group from 10.8 per cent in 1957 to 6.8 per cent in 1963; *ii)* and an equally significant increase in the share of "chemicals and pharmaceuticals"; and ///) the emergence of the "paper

TABLE VI

THE SHARE OF "TOP" IS INDUSTRIES (CLAIMING 81 PER CENT) IN TOTAL INDUSTRIAL LICENSING

	1957 percentage share in total licensing	1963 percentage share in total licensing	Percentage change in absolute amount licensed., in 1963 over 1957
A. Industries Producing Consumer Goods			
Textile and clothing	2L03	4.33	negative
Edible oils	10.12	S.24	negative
Tobacco manufacturing	7.31	2.37	negative
Soap, perfumes, cosmetics and other inner toilet requirements	5,05	8.39	365.74
Printing, publishing, *etc.*	3.57	negligible	
Domestic hardware	negligible	3.80	477,01
Total:	47.08	26.13'	55.59
(Per cent change in *all* consumer-goods industries = 69,74)			
B. Industries Producing Intermediate Goods			
Weaving, spinning, and thread spooling	10.80	6,76	5.50
Chemicals and pharmaceuticals	5.78	8,54	314.63
Rubber and rubber manufacturing	3.36	negligible	–
Leather manufacturing	2.6	2.08	169.80
Dyeing, dye-mixing and calendering	1.15	negligible	–
Paper and paper manufacturing	negligible	4.81	489.50
Paints and varnishes	negligible	1.89	382.75
Total:	23,78	24.08	183.97
(Per ceut change in *all* intermediate-goods industries = 205,26)			
C. Industries Producing Investment and Related Goods			
Transport equipment	5.04	9.50	428,63
Electrical equipment	2.17	8.23	965.67
Non-metallic equipment	1.38	3.51	610.47
Basic metals	i.01	7,7 f	2025,00
Metal products	0.55	2.23	1046,66
Total:	10.15	31,16	762.23
(Per cent change in *all* investment-goods industries — 695.69)			
15 Industries as per cent of totallicensiug	81.00	81.00	181.73

Source : Computed from the data provided by the CCI&E (6].

and **paper**-manufacturing" industry, whose share increased from a negligible amount (in percentage terms) in 1957 to 4.8 per cent of total industrial licensing in 1963, and of the "paints and varnishes" industry, whose share increased from a negligible amount to 1.9 per cent during the same period.

It may be interesting to see the changes in the relative positions of various industries with respect to their relative shares in total licensing on an overall basis. In other words, instead of ranking industries by their percentage shares within their respective groups, we now rank them by their relative position in all the three groups taken together. This has been done by picking out five industries whose relative share in industrial licensing has been the highest. All industries whose relative position in overall ranking is less than fifth, are termed as "low".

TABLE VII

THE OVERALL RANKING OF INDUSTRIES BY THEIR RELATIVE SHARES IN TOTAL INDUSTRIAL LICENSING: 1957-1963

	1957	1963
Textile industry	**1**	**low**
Weaving and spinning	**2**	**low**
Tobacco manufacturing	**3**	**low**
Chemicals and pharmaceuticals	**4**	**2**
Soap, perfumes and other toilet requirements	**5**	**4**
Electrical equipment	**low**	**3**
Transport equipment	**low**	**5**
Basic metal	**low**	**1**

It can be seen that: *i)* whereas in 1957 consumer-goods industries were on top, in 1963 the investment-goods and intermediate-goods industries occupied the top position; *ii)* "chemicals and pharmaceuticals" rose from the fourth io the second position; and *iii)* within the investment-goods industries group, the "basic metal" industries occupied the top position in 1963.

These trends are "confirmed" when we look at the fourth column of Table VI which gives the percentage *rates* of increase in the shares of various industries over the period. The basic-metal group recorded the highest rate of increase of 2025 per cent. Also the highest "growth" rates are concentrated in the investment-industries group, ranging between 428 per cent for "transport equipment" to 2025 per cent for "basic metal". Other significant increases occurred in the shares of "paper and paper manufacturing" (489.5 per cent), "domestic hardware" (477 per cent), "paints and varnishes" (382.8 per cent), "chemicals and pharmaceuticals" (314.6 per cent), and "leather manufacturing" (169.8 per cent).

Before we conclude this section, it should, however, be emphasized that the picture emerging from this study is only partial, because many of these industries met their import requirements for capital goods and spare parts from their bonus-voucher earnings. This is particularly true of cotton-textile and jute-textile industries which have to meet a significant part of their import requirements in this fashion.

It should also be noted that changes in the relative shares of different industries in total industrial licensing are not always accurate indicators of the relative growth rates of these industries; for not all industries are equally dependent on imports. This is particularly true of cotton-textile and jute-textile industries whose entire raw-material requirements are met from domestic sources. However, in the case of capital-goods industries, such an inference about relative growth rates is less objectionable, because all of these industries are largely dependent on imports.

The Allocative Biases of Commercial Licensing Policy: 1959-1963

We next turn to commercial licensing. The results of our study are given in Tables VI11(a) and VIII(b).

It can be seen from Table VI 11(a) that the relative shares of CG and R„ in total commercial licensing increased by 3 per cent, but that of Co remained almost constant. This reversal of trends occurred also in the case of Rca. But in the case of Ca there was a still greater increase.

However, if we consider the entire 1955-1963 period, then there is the same tendency for the relative shares of R„ and CQ to decline and for those of R„ and Ca to increase.

The details of these changes in the four broad commodity groups are given in Table VIII(b) in the Appendix. A comparison of the last three columns shows that whereas changes during 1955-1959 and 1955-1963 are similar in signs, there is a divergence between the direction of change in the 1959-1963 period and in the 1955-1963 period. This "improvement" in the relative shares of C„ and R„ is probably due to the introduction of "OGL" licences in 1960, which were presumably biased in favour of C0 and Rco. The fall in the share of Rca is wholly attributable to a reduction in the licences issued for the imports of "brake fluid, *etc."* group. The trends in Ca are the same for all the three periods.

Summary

Our study of the allocative biases of import-licensing policy reveals an unmistakable trend towards a greater emphasis on capital goods and raw material for capital goods as compared to consumer goods and raw material for consumer-goods group. This is what one would expect. As industrialization has pro-

TABLE Vin(a)

PERCENTAGE CHANGES IN COMPOSITION OF IMPORT LICENCES ISSUED UNDER COMMERCIAL LICENSING: 1955-1963

Import category	1955 as per cent of total commercial licensing	1959 as per cent of total commercial licensing	1963 as per cent of total commercial licensing	Net change in 1959 over 1955	Net change in 1963 over 1959
Consumer goods (Co)	31.9	15.3	3.5.5	—16.6	+0.2
Raw material for consumer goods (Rco)	18.6	8.1	10.1	—10.5	+2.0
Raw material for capital goods (Rca)	35.2	57.7	40.3	+22.6	—17.4
Capital goods (C.)	14.3	18.9	34.1	H-4.6	+ 15.2

Source: Table VIII(b) in the Appendix.

ceeded apace in Pakistan, the domestic demand for the imports of consumer goods and raw material for consumer goods has been increasingly met from domestic production. At the same time, the requirements of domestic industries for the imports of capital goods and raw material for capital goods have increased. Import-licensing policy has reflected these trends in domestic production.

The trends in "industrial licensing" during 1957 and 1963 also conform to this pattern. The licences issued to capital-goods and intermediate-goods industries have increased over time; while the relative share of consumer-goods industries has decreased. Although this part of the study gives only a partial picturei° of changes in the import requirements of various groups of industries during 1957-1963, yet this is what one would expect to have happened. Whereas the domestic requirements of consumer-goods industries for spare parts, *etc.,* may be met by domestic capital-goods industries, the machinery and spare parts "needed" by these latter classes of industries have to be imported from abroad.

All. THE ALLOCATIVE BIASES OF EXPORT-PROMOTION POLICY: 1959-1963

In this section we propose to discuss, in the light of available data, the allocative biases of Export Bonus Scheme, which remains the most important instrument of export-promotion policy in Pakistan. The object of the scheme, it will be recalled, is to secure an exportable surplus greater than would otherwise be forthcoming by subsidizing exporters of manufactured goods on a selective basis at the expense of importers. This subsidy is given in the form of import-bonus vouchers, which exporters can sell at a premium in the market. Thus, the subsidy, instead of being paid by the government, is provided by the importers who buy import-bonus vouchers. For example, if an exporter earns foreign exchange worth rupees 100, he will receive not rupees 100 but 100 [1 +0.2 (1.5)J— 130, if the rate of bonus is 20 per cent and the rate of premium on the bonus vouchers is 150 per cent. The importer on the other hand has to pay rupees (20 + 30) = 50 for an import entitlement of rupees 20. Thus, the importer pays a subsidy of rupees 30 to the exporter. Let us now investigate the ways in which the scheme *can* influence the composition of domestic investment.

First, Export Bonus Scheme tends to raise the domestic prices of exports. This will normally be the case unless the domestic supply of exports is perfectly elastic. This will induce greater investment in export industries, but will at the same time repel consumers from buying the high-priced export goods. Both factors will work to increase the export surplus.

Secondly, Export Bonus Scheme could influence investment flows by raising the domestic prices of imports. This is so because the cost of imports *to the*

loit is partial because a considerable part of these requirements has been satisfied through imports under the Export Bonus Scheme and commercial licensing.

importer is increased by the positive premium that he has to pay in order to obtain the entitlement to import. This, in turn, may lead to a lesser expenditure on imports by importer. However, this is unlikely to happen because, in view of the excess demand for imports, importers can make profits even after paying the higher price. A higher price of foreign exchange will, therefore, fail to deter importers from spending the increased amount of foreign exchange made available to them through Export Bonus Scheme.

It has also been argued that a positive premium *per se* tends to raise the domestic prices of imports. In other words, importers can successfully shift the burden of the higher cost of foreign exchange on to the consumer. Now, it is obvious that a positive premium by itself cannot *cause* the domestic prices of imports to rise, for a high rate of premium on import-bonus vouchers is merely a symptom of the excess demand for imports, which keeps their domestic price above the world prices. It is the high prices of imported goods which cause the high premium, *not* the other way round 11. The level of premium merely reflects the scarcity price of foreign exchange. Import-licensing policy, by giving foreign exchange to importers at the official rate, lets the scarcity premium—the difference between the lower foreign supply price and the higher domestic price—accrue to importers. The Export Bonus Scheme simply cuts into this importers "rent", which then accrues to exporters.

Thirdly, Export Bonus Scheme may influence the composition of investment by bringing about a change in the composition of imports. As we know, exporters who get import-bonus vouchers have the option of either using them for their own imports or selling them in the open market at a premium. There is, thus, an opportunity cost (equal to the level of premium) associated with the "own-use" of the import-bonus vouchers. It has been argued that the high level of premium on import-bonus vouchers has induced exporters to sell them in the market, rather than using them to meet their own import requirements. Now, the general presumption is that this will encourage greater imports of consumer goods, particularly of the "luxury" goods, since their supply being the most stringently curtailed under "normal" licensing[12], these goods promise high profits. On the other hand, if the exporter himself uses these vouchers, he will import capital goods and raw meterial or spare parts "required" by him.

To examine this hypothesis, we have classified the imports under Export Bonus Scheme according to our classification scheme into C_M $R_{„}$, Rca and $C_{„}$ The changes in the composition of import licences issued are then compared with the changes in the average level of premium during 1959-1963.

nit may be interesting to recall what Ricardo had to say 011 the causes of high rent in England. He wrote, "... Corn is not high because a rent is paid, but a rent is paid because the corn is high", *see* f8, p. 40], Later, on page 42, he calls liigh rent as "symptom" and not the "cause" of the high prices of corn.

12All licences issued by the CCI&E, except those issued against import-bonus vouchers, are called "normal" licences.

TABLE IX(a)

THE LEVEL OF PREMIUM AND THE COMPOSITION OF IMPORTS UNDER EXPORT BONUS SCHEME: 1959-1963

(in per cent)

	1959	1963	Net per cent change
The average level of premium	163	144	— 19
Composition of import liccnces issued for the import of " ^			
Consumer goods	24.3	14.1	— 10.2
Raw material for consumer good;;	27.8	3t ,0	+ 3.2
Raw material for capital goods	8.1	9.1	+ 1.0
Capital goods	39.8	45.S	j- 6.0

Source: Table IX(b) in the Appendix.

U can be seen that there has occurred a fall in the liccnces issued for consumer-goods imports and a corresponding rise in the share of $R_{..}$, $R_{..}$ and $C_{.}$. This appears to "confirm" the view that the decline in level of premium induces the importers to import R_{M} and $C_{.}$ rather than C_{0}.

But the evidence given in Table IX(a) should not be taken at its face value. Any such association is purely accidental. Our view is that the level of premium exercises little or no influence on the composition of imports. For one thing, the level of premium has fluctuated so widely from month to month that it is hard to believe that it could have exercised any definite and predictable influence on tbe composition of imports.

Furthermore, the view thai Ihere is an opportunity cost associated with the own-use of import-bonus voucher ignores the important fact that an opportunity cost is associated with *not* using the bonus vouchers for "own-imports" also. This is the cost[13] for exporters of not getting enough import licences to meet their own "requirements", or having to buy them from the market at a higher price. Our view is that the composition of imports made against import-bonus vouchors is determined wholly or mainly by the relative excess demand for various classes of imports. This is, after all, the very rationale of the Export Bonus Scheme: to permit importers to import goods for which the excess demand is the greatest.

UThis cost will be the higher the more restricted are the imports needed by the exporter under import licensing.

TABLE X(a)

CHANGES IN THE COMPOSITION OF LICENCES ISSUED UNDER EXPORT-BONUS SCHEME AND COMMERCIAL LICENSING: 1959-1963

Import category	1959		1963		Net change	
	As % of total licensing under E.B.S.	As % of total licensing under CX.	As % of total licensing under E.B.S.	As % of total licensing under C.L.	E.B.S	C.L.
Consumer goods	24.3	15.3	14.1	15.5	—10.2	+0.2
Raw material fox consumer goods	27 %	8.1	, 31.0	10.1	+3.2	+2-1
Raw material for capital goods	8.1	57.7	9.1	40.3	+ 1.0	—17.4
Capital goods	39.8	1S.9	45. S	34.1	+ 6.0	+ 15.2

Note: E.B-3. stands for export-bonus scheme.
C.L. stands for commercial licensing.

Source: Table X(b) in the Appendix for first and third columns; Table VXIX(a) for the second and fourth columns.

Table IX(a) should, therefore, be interpreted to mean that over the period 1959-63, there was greater excess demand for R„, R„ and C, than for C,. The decrease in the relative share of C, and an increase in that of R„, under Export Bonus Scheme, are easily explained. During the 1959-63 period, the imports of consumer goods were greater than in the previous period under "commercial" licensing. This was because of the introduction of open-general licences (OGL) in 1960. On the other hand, the licences issued for R„ declined sharply. The increase in R,, and C. took place even though greater allocations were also being made under commercial licensing. Table X(a) compares licences issued under the Export Bonus Scheme and commercial licensing.

A detailed comparison is given in Table X(b) in the Appendix. The greater excess demand for R„, Rco and C, is also indicated by the fact that most of domestic industries in the country had considerable excess capacity because of an insufficient supply of spare parts, *etc.*

Summary

We have considered in this section the various ways in which Export Bonus Scheme may influence resource allocation. It has been found that the scheme *by itself* does not have any independent effect on the composition of imports made against import-bonus vouchers. The sole effect of the scheme is to *permit* greater imports of the commodities in excess demand and, insofar as it enables the importers to import R„, Rca or C, , it premits the domestic industries (the export industries in particular) to work at fuller capacity.

IV. SUMMARY AND CONCLUSION

In the preceding sections, an empirical study of the allocative biases of Pakistan's commercial policy has been made. We have mainly concentrated on a study of import-licensing policy and Export Bonus Scheme.

Our analysis of Export Bonus Scheme has shown that its function is to induce the exporters "covered" by the scheme to export more than they otherwise would, Also, additional imports, permitted under the scheme, may allow domestic industries to operate more efficiently. But the scheme, *by itself,* does not exercise an independent influence on the composition of imports made against import-bonus vouchers.

This leaves us with import-licensing policy. Our detailed study of Pakistan's import-licensing policy revealed that, during the 1953-63 period, there was an unmistakable tendency for the licences allocated for importing capital goods (Ca) and raw material for capital goods (Rca) to increase at the expense of consumer goods (Co) and raw material for consumer goods (R„)". Our study also revealed

MA study of the distribution pattern of import licences issued under Export Bonus Scheme also revealed the same trend over the 1959-63 period (the scheme, it will be recalled, was introduced in 1959).

that, although the relative share of licences issued to consumer-goods industries was greater initially than the relative shares of intermediate-goods and investment-goods industries, the differences in their relative shares gradually narrowed over the 1957-63 period, and finally, in 1963, the share of investment-goods industries exceeded that of consumer-goods industries*[5].

If we consider these two sets of data together, the one relating to licences issued for importing **Co, Rco, Rca** and O type of goods, and the other pertaining to the licences issued to various types of industries — then it appears that import-licensing policy, during 1953-1963, had sought to provide for an increasingly greater supply (domestic production *plus* imports) of capital goods and of raw material for capital goods. This was done by earmarking bigger chunks of import licences both for the direct import of finished capital goods as well as for the raw material and spare parts used as inputs in the home production of these goods, as compared with similar allocations for the direct imports and home production of consumer goods.

Insofar as these trends in the composition of import licences reflect a deliberate attempt by the CCI&E to influence the composition of domestic investment in the "desired" direction, such a policy seems to have been consistent with the overall development strategy.

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is Although we do not have data on the distribution of import licences by industries before 1957, it is safe to assume that the relative share of consumer-goods industries must have been still higher in the 1953-57 period than it was in the 1957-63 period, because the industrialization process in Pakistan was started by import substitution mainly in consumer-goods industries.

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TABLE IH(b)

RELATIVE SHARE **OF MAJOR COMMODITY GROWS IN TOTAL LICENSING**
(INDUSTRIAL PLUS COMMERCIAL PLUS OCAC)
(1953/54 —1958/59)

Commodity group	1953/54		1958/59		Net percentage change in 1958/59 over 1953/54
	Amount *(million rupees)*	Per cent of total licensing	Amount *(million rupees)*	Per cent of total licensing	
A. Consumer Goods (C_o)					
Food	11.24	1.81	18.74	2.40	+0.59
Textile and clothing	23.76	3.82	19.56	2.50	—1.32
Cigarettes and tobacco	7.82	1.26	1.71	negligible	—1.00
Toilet requirements	3.20	negligible	2.07	negligible	–
Beverages	1.47	negligible	2.21	negligible	–
Drugs and medicines	30.40	4.89	44.14	5.65	+0.76
Stationery and related items	26.32	4.24	7.50	0.96	—3.28
Glass and glassware	3.21	negligible	2.94	negligible	–
" Furniture	0.32	negligible	negligible	negligible	–
Musical instruments	0.13	negligible	0.37	negligible	–
Domestic hardware	0.13	negligible	1.59	0.20	–
Clocks and watches	0.68	negligible	0.79	negligible	–
Rubber manufacturing	1.15	negligible	1.65	0.25	–
Miscellaneous	4.44	0.71	6.22	0.79	+0.08
Total *(Co):*	114.26	18.49	102.47	15.00	—3.49

-(Contd.y

TABLE 111(b)—*(Contd.)*

Commodity group	1953/54		1958/59		Net percentage change in 1958/59 over 1953/54
	Amount *(million rupees)*	Per cent of total licensing	Amount *(million rupees)*	Per cent of total licensing	
B. Raw Material for Consumer Gooes (Rco)					
Oil and oilseeds and other seeds	7.50	1.21	11.74	1.50	+0.29
Silk, cotton yarn and thread	67.35	10.84	15.25	1.95	—8.89
Chemicals and gas	21.88	3.52	12.36	1.58	—1.94
Rubber material	3.93	0.63	3.72	0.60	—0.03
Film and photography	2.10	negligible	5.26	0.67	*T*
Optical and optical instruments	0.91	negligible	0.67	negligible	
Tobacco unmanufactured	2.76	negligible	6.20	0.79	T
paper and paperbcard	6.78	1.09	7.86	1.00	—0.09
Dyes and paints and varnishes	22.62	3.64	14.54	1.86	—1.78
Miscellaneous	18.48	2.97	11.85	1.52	—1.45
Total (Rcc):	154.26	24.86	85.78	13.00	—11.86

•(Contd.)-

TABLE 111(b)—*(Contd.)*

Commodity group	1953/54		1958/59		Net percentage change in 1958/59 over 1953/54
	Amount *(jmillion rupees)*	Per cent of total licensing	Amount *(million rupees)*	Per cent of total licensing	
C. Material Chiefly for Capital Goods (Rca)					
Arms and ammunition	0.80	negligible	1.66	negligible	_
Building material	3.69	0.60	2.78	0.32	—0.28
Rubber manufacturing	9.41	1.51	11.82	1.51	_
Chemical material	3.88	0.65	2.67	0.34	_
Cane, wood ana timber	7.34	1.18	5.63	0.72	—0.46
Brake fluid, grease, oil, *etc.* (includes OCAC)	148.38	23.88	240.71	30.81	+ 6.73
Clay and glass material	4.46	0.72	4.74	0.61	—0.U
Miscellaneous	1.27	negligible	1.01	negligible	—0.26
Total (Rca):	179.22	28,86	276.11	37.20	+8.30

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TABLE IH(b)—(CoticM.)

Commodxty group	1953/54		1958/59		Net percentage change in 1958/59 over 1953/54
	Amount *{million rupees)*	Percent of total licensing	Amount *(million rupees)*	Per cent of total licensing	
D. Capital Goods (Ca)					
Metal products	13.10	2.11	***49.51***	6.34	+4.23
Electrical equipment	18.97	3.05	***17.69***	2.62	—0.79
Transport equipment	28.39	4.57	59.85	7.66	+3.09
Non-metallic equipment	108.49	17.46	104.97	13.43	—4.03
Miscellaneous	2.59	negligible	9.02	1.15	+ 1.15
Total (Ca):	170.84	27.69	240.84	34.83	+7.12
E. Total Licensing:	621.42		781.30		

Note: The shares below 20 per cent are termed "negligible". ***Source:*** Computed from the data provided by the CCI&E [6].

TABLE Vm(b)

COMPOSITION OF THE LICENCES ISSUED TO COMMERCIAL IMPORTERS: 1959-1963

Commodity group	1959		1963		Net percentage change in 1963 over 1959	Net percentage change in 1959 over 1955	Net percentage change in 1963 over 1955
	Amount *(million rupees)*	% of total commercial licensing	Amount *(million rupees)*	% of total commercial licensing			
Consumer Goods (Co)							
Food	10.46	2.2	23.61	3.2	+ 1.0	+0.3	+ 1.3
Textile and clothing	2.55	0.5	3.96	0.5	_	—0.9	_
Cigarettes and tobacco	0.25	_	_	_	_	_	
Toilet requirements	2.48	0.5	1.72	0.2	—0.3	—0.4	—0.7
Beverages	2.04	0.4	2.40	0.3	—0.1	_	
Drugs and medicines	43.18	8.9	64.28	8.8	—0.1	—1.9	—2.0
Stationery and related items	7.62	1.6	12.05	1.6	_	—0.4	—0.6
Glass and glassware	2.02	0.4	1.72	0.2	—0.2	_	. —0.2
Furniture	_	_	”	_	_	_	_
Musical instruments	0.30	_	0.36	_	_		
Domestic hardware	0.16	_	0.74	_	_	_	_
Clocks and watches	0.91	_	_	_	_	_	_
Rubber manufacturing	0.25	_	0.35	_	_	_	_
Miscellaneous	2.06	0.4	2.44	—0.3	—0.1		—0.1
Total (Co):	74.29	15.3	113.58	15.5	+0.2	—16.6	—16.4

(Contd^i

TABLE Vm(b)—*(Contd.)*

Commodity group	1959		1963		Net percentage change in 1963 over 1959	Net percentage change in 1959 over 1955	Net percentage change in 1963 over 1955
	Amount *(million rupees)*	% of total commercial licensing	Amount *(million rupees)*	% of total commercial licensing			
Raw Material **for Consumer Goods** (R.o)							
Oil and oilseeds and other seeds	5.64	1.2	9.34	1.3	+0.1	+0.5	+0.6
Silk, cotton yarn and thread	2.15	0.4	1.42	0.2	—0.2	—10.3	—10.5
Chemicals and gas	9.74	2.0	28.09	3.8	+1.8	+0.6	+ 1.4
Rubber material	0.72	_	2.13	0.3	+0.3	_	+0.3
Film and photography	5.10	1.1	7.04	1.0	—0.1	+0.4	+0.3
Qpticals and optical instruments	0.61	_	1.47	0.2	+0.2	_	_
Tobacco unmanufactured	0.70	. .	0.60	_	_	_	_
Paper and paperboard	1.64	0.3	_	_	—0.3	—1.4	_
Dyes and paints and varnishes	10.43	2.2	29.20	4.0	+ 1.8	+0.3	+2.3
Miscellaneous	2.29	0.5	1.76	0.2	—0.3	—0.2	—0.5
Total (Rco): '	39.03	8.1	81.04	11.1	+ 3.0	—10.5	—7.5

(Contd)

TABLE Vffl(b)-*{Concld.)*

Commodity group	1959		1963		Net percentage change in 1963 over 1959	Net percentage change in 1959 over 1955	Net percentage change in 1963 over 1955
	Amount *(million rupees)*	% of total commercial licensing	Amount *(million rupees)*	% of total commercial licensing			
Raw Material for Capital ***Goods*** (R.o)							
Arms and ammunition	1.41	0.3	0.49		—0.3	–	–
Building material	0.97	–	0.80	–	–	—1.3	—1.3
Rubber material	13.89	2.9	27.25	3.7	+ 1.2	+0.5	+1.3
Chemical material	1.27	0.3	3.45	0.5	+ 0.2	—0.2	–
Cane, wood, timber, ***etc.***	5.19	1.1	8.83	***1.2***	+ 0.1	—0.1	...
Brake fluid, oil, ***etc.*** (includes allocations to OCAC)	250.98	51.8	234.63	32.1	—19.7	+23.5	—3.8
Clay and glass material	5.20	LI	2.81	0.4	— 0.7	+0.1	—0.6
Miscellaneous	0.66	–	–	–	–	–	–
Total (Rca):	279.57	57.7	294.44	40.3	—17.4	-j-22.6	+ 5.2
Capital Goods **(Ca)**							
Metal products	20.74	4.3	108.12	14.8	+ 10.5	+2.0	+ 12.5
Electrical equipment	10.84	2.2	6.11	0.8	— 1.4	+0.6	—0.8
Transport equipment	27.34	5.6	71.19	9.7	+ 4.1	+ 1.2	+2.9
Non-metallic equipment	32.64	6.7	7L54	9.8	+ 3.1	+ 3.0	+ 6.1
Miscellaneous	–	–	–	–	–	–	–
Total (C.):	91.57	18.90	256.97	35.14	+ 16.24	+4.6	+20.8
Total Licensing:	484.45		731.09				

Source: data provided by the CCI&E [6].

TABLE X(b)

A COMPARISON OF IMPORT LICENCES ISSUED UNDER EXPORT-BONUS SCHEME AND COMMERCIAL LICENSING: 1959-1963

Commodity group	1959		1963		Net change in 1963 over 1959 E.B.S.	Net change in 1963 over 1959 C.L.
	Amount licensed E.B.S.	% of total licensing under E.B.S.	Amount licensed E.B.S.	% of total licensing under E.B.S.		
A. Consumer Goods (C_o)						
Food	0.92	1.2	3.78	1.8	+0.6	+1.0
Textile and clothing	10.68	14.0	5.79	2.8	—11.2	—
Toilet requirements	0.08	—	2.38	1.2	+1.2	—0.3
Beverages	0.32	—	0.35	—	—	—0.1
Drugs and medicines	0.16	—	0.42	—	—	—0.1
Stationery and related items	2.56	3.4	3.57	1.8	—1.6	—
Cigarettes and tobacco	—	—	3.29	—	—	—
Glass and glassware	0.39	—	2.12	1.1	+1.1	—0.2
Furniture	—	—	—	—	—	—
Music instruments	negligible	—	0.6	—	—	—
Domestic hardware	—	—	negligible	—	—	—
Clocks and watches	1.49	2.0	6.26	3.1	+1.1	—
Rubber manufacturing	0.29	—	1.45	0.7	+0.7	—
Miscellaneous	1.28	1.7	2.18	1.1	—0.6	—
Total (C_o) :	18.46	24.3	28.83	14.1	—10.2	+0.2

(*Contd.*)

TABLE *X(b)—(Contd.)*

Commodity group	1959		1963		Net change in 1963 over 1959 E.B.S.	Net change in 1963 over 1959 C.L.
	Amount licensed E.B.S.	% of total licensing under E.B.S.	Amount licensed E.B.S.	% of total licensing under E.B.S.		
B. Material Chiefly for Consumer Goods (Rco)						
Oil and oilseeds and other seeds	1.76	2.3	4.71	2.3	,,	+0.1
Silk, cotton, wool, yam and thread	3.66	4.S	51.38	25.1	-1-20.3	—*0.2*
Chemicals and gas	10.24	13.7	3.63	1.8	—11.9	+ 1.8
Rubber material	0.72	0.9	negligible	_	—0.9	+ 0.3
Film and photography	0.10	_	0.35	_	_	—0.1
Opticals and optical instruments	0.13	,,	negligible	_	_	+0.2
Tobacco unmanufactured	0.10	_	negligible	_	_	_
Dyes, paints and varnishes, *etc.*	3.59	4.7	0.57	negligible	—4.7	+ 1.8
Paper and paperboard	0.20	_	1.72	0.8	+0.8	—0.3
Miscellaneous	0.46	_	0.76	negligible	_	—0.3
Total (Rco):	21.13	27.8	63.24	31.0	+3.2	+3.0
C. Material for Capital Goods (Rca)						
Arms and ammunition	0.07	_	3.23	1.6	+ 1.6	—0.3
Building material	0.31	_	1.68	0.8	+0.8	—

(Contd.)

TABLE X(b)—*(Concld.)*

Commodity group	1959		1963		Net change in 1963 over 1959 E.B.S.	Net change in 1963 over 1959 C.L.
	Amount licensed E.B.S.	% of total licensing under E.B.S.	Amount licensed E.B.S.	% of total licensing under E.B.S.		
Rubber material	negligible	_	5.30	2.6	+2.6	+ 1.2
Chemicals	2.11	2.7	0.98	negligible	—2.7	+ 0.2
Cane, wood, timber, *etc.*	0.14	_	0.54	negligible	_	+0.1
Brake fluid, grease, oil, *etc.*			_	_	_	—19.7
Clay and glass material	2.24	2.5	2.81	1.4	—1.5	—0.7
Miscellaneous	1.42	1.9	2.20	1.1	—0.8	
Total (Rca) :	6.15	8.1	18.64	9.1	+ 1.0	—17.6
D. Capital goods (C_c)						
Metal products	7.19	9.4	9.92	4.8	—5.4	+ 10.5
Electric equipment	1.88	2.4	19.89	9.7	+ 7.3	—1.4
Transport equipment	1.02	1.3	45.63	22.3	+21.0	+4.1
Non-metallic equipment	19.92	26.2	37.84	18.5	—7.7	+ 3.1
Miscellaneous	0.31	_	0.19	negligible	_	_
Total (C_c):	30.31	39.8	93.57	45.8	+6.0	+16.24
Total (A+B+C+D):	76.05		2P4.28			

Source: Computed from the data provided by the CCI&E [6].

Import Licensing in Pakistan

Syed Nawab Haider Naqvi

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The author alone is responsible for the views expressed herein and for any errors that still remain.

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Import Licensing in Pakistan

Syed Nawab Haider Naqvi

INTRODUCTION

Pakistan's import trade in the private sector is regulated by an elaborate licensing system. It is complex in its structure and detailed in its operation. The structural complexity of the system arises from the simultaneous operation of different types of licences which seek to regulate the import sector in microscopic detail. It regulates the volume of imports, the composition of imports, and, in certain cases, even the sources of imports.

This elaborate system is administered by the Chief Controller of Imports and Exports (CCI&E), in the Ministry of Commerce, who is the principal licensing authority in the country. His task is to assess import needs and then to allocate scarce foreign-exchange resources earmarked for the private sector. In arriving at his decisions, he is guided, on the one hand, by the latest market intelligence reports regarding the price trends of imported commodities as the indicators of what the market actually needs and, on the other hand, by official views of what the market should need, and in what proportion, to conform to the broader scheme of ensuring an optimal allocation of domestic resources. The formulation of the semi-annual Import Policy, which is the sum-total of all these varied and complex decisions is, therefore, a momentous undertaking, and occupies a central position in the broader strategy of economic planning.

It is the purpose of this study to present an analytical description of the working of the licensing system in Pakistan, and to raise questions concerning the implications of the system for resource allocation in the country. The study is divided into six sections. While the first section is introductory, in the second we describe the overall administrative framework within which the licensing

system operates. In the third section are discussed the main objectives of the licensing system and the nature of the decision-making process involved in translating these objectives into the import policy. The next section is concerned with a description of ways in which these decisions are implemented. In the fifth section, we focus our attention on the implications of a particular import policy on the allocation of domestic resources. The concluding section raises certain questions about the operation of the system which are important for policy decisions.

II

The licensing system in Pakistan is closely linked with the exchange-control system which regulates both the inflow and outflow of foreign exchange. On the one hand, exporters are required to surrender their entire foreign exchange earnings to the State Bank of Pakistan. The foreign-exchange expenditure on imports, on the other hand, is regulated by a high-level Foreign Exchange Committee, which is charged with preparing the annual Foreign Exchange Budget, and acting as watchdog on the foreign-exchange position of the country throughout the year[1].

The Foreign Exchange Budget, a secret document, is an uptodate, comprehensive record of the foreign-exchange position of the country. It includes a review of the past and an estimate for the future, on the receipts as well as on the expenditure side. Foreign-exchange expenditure in the budget period is limited by the expected accruals of foreign exchange during the year plus the extent, decided by the Committee, to which the foreign-exchange reserves are to be drawn down. A part of foreign exchange (about one-fifteenth) is automatically designated for imports in the private sector made under the Export Bonus Scheme [1] (to be discussed below). The remaining foreign-exchange expenditure is divided, in ratios determined by the Committee every year, between the public and private sectors[2]. (The proportion in recent years has been about one-third public and two-third private.) The foreign-exchange allocation to the public sector is distributed among the various ministries by the Committee which further specifies how much each ministry can spend on developmental and nondevelopmental imports. These allocations are made on the basis of budgets presented to the Committee by the various ministries, with high priority being given to on-going projects.

'The Committee is composed of seven members, with the Finance Secretary acting as Chairman. The other members are Secretaries of the Ministries of Commerce, Industries, Agriculture, Defence, Foreign Affairs, and a representative of the Planning Commission. A representative of the State Bank of Pakistan is a consultant to the Committee.

Separate allocations are made for the public and the so-called semi-public sectors, the latter including institutions like the Pakistan Industrial Development Corporation (PIDC), the Pakistan Industrial Credit and Investment Corporation (PICIC), and the Industrial Development Bank of Pakistan (IDBP).

The allocation to the private sector is made on the basis of the estimates of private-sector needs presented to the Committee by the Ministry of Commerce, The Foreign Exchange Committee is, however, empowered to scale down these estimates if it thinks that these claims cannot be fully accommodated in view of the foreign-exchange position of the country. The Committee, however, does not further specify, as it does in the case of public-sector imports, how much of this allocation can be spent on developmental and nondevelopmental imports. This is left to the discretion of the CCI&E.

The Foreign Exchange Budget is approved by the Cabinet after which the budgeted foreign-exchange expenditure cannot be exceeded without its prior approval. Although these allocations are tentatively made on yearly basis, utilization of these allocations (both in the public and private sectors) is authorised, again by the Foreign Exchange Committee, for only one six-month shipping period at a time. (The two shipping periods are January-June and July-December.)

The actual disbursement of foreign exchange is done through the Exchange Control Department of the State Bank of Pakistan which maintains three separate foreign-exchange accounts. Account No. 1 is credited with 20 per cent to 40 per cent (depending on the permissible rate of bonus) of exchange earnings from the export of commodities included under the Export Bonus Scheme. The balance of foreign-exchange earnings is then credited to Account No. 2, for government imports and other payments, and to Foreign Exchange Account No. 3 for private imports and other payments, in ratios determined by the Foreign Exchange Committee. Although marginal adjustments between Account Nos. 2 and 3 may be made by the Committee, no such adjustment is allowed to take place between Account No. 1 and the other two accounts.

After the Foreign Exchange Committee has completed its work, the CCI&E prepares the semi-annual Import Policy which is announced by the Commerce Minister on the eve of each shipping period. The Import Policy includes a general survey of the import position and presents a comprehensive list of the goods to be imported. (The detailed decision-making underlying this policy will be explained below.)

It is the major responsibility of the CCI&E to issue licences to private importers against foreign-exchange accruals to Account No. 3. This is called "cash licensing". In addition, the CCI&E issues foreign-aid licences, called aid "sub-authorizations" against the Public Authorizations (PAs) issued by the Economic Affairs Division, President's Secretariat. Bonus licences are also granted by the CCI&E on the basis of import-bonus vouchers issued by the State Bank of Pakistan against accruals to Account No. 1.

The above discussion indicates the limits of the jurisdiction of the Chief Controller of Imports and Exports and highlights his central task, namely, the

achievement of an optimal distribution of the foreign-exchange resources including foreign aid committed to private-sector imports by the Foreign Exchange Committee and the Ministry of Ecomomic Affairs.

III

As noted above, the CCI&E has extensive responsibility and authority in the area of private-sector imports. He decides: *i*) what particular commodities to import (and what not to import); *ii*) how much of these commodities to import; and *iii*) who should import. Then, in view of the budget constraints, he has to grade imports in order of 'essentiality'. He decides among the competing claims for consumer, intermediate, and capital goods; and within each of these categories, he makes detailed decisions about the importance of many particular goods, keeping in mind official views about national priorities. Furthermore, he ensures that the importers who get import licences are genuine and that each genuine importer gets an import licence according to his financial capacity. Thus, he has to make decisions not only commodity-wise but also importer-wise. The complexity of his task is increased by the fact that all these decisions have to be made afresh (or at least reviewed) for each shipping period.

The CCI&E, therefore, constitutes a vital link between the market and the official hierarchy. His decisions complement "market decisions" in some respects and substitute for them in others. The purpose of this section is to indicate the broad outlines of the decision-making process, to note the major objectives which guide the CCI&E, and to spell out in general terms the procedure by which the basic decisions are made.

There are at least four major objectives which guide the Chief Controller of Imports and Exports in making his decisions: *i*) to keep the prices of essential consumer goods, like drugs and medicines, within the reach of the common man by allowing relatively liberal imports of such goods (and conversely curtailing luxury imports); *ii*) to ensure the fullest possible utilization of the existing installed industrial capacity of each industrial unit, and an "orderly" creation of new capacity, consistent with the plan objective of an optimal allocation of domestic resources; *iii*) to stimulate exports; and, finally, *iv*) to attain a better regional distribution of imported goods[3].

Guided by these objectives, the CCI&E sets about the task of allocating foreign exchange to the private sector. In deciding which commodities are to be imported, the Chief Controller is guided by the decisions of the Central Ceilings

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[3]Another oft-mentioned objective of licensing policy is the "oonservation of foreign exchange". However, in the light of our previous discussion, it is clear that the Chief Controller's job is only to allocate the foreign exchange earmarked for private-sector imports by the Foreign Exchange Committee. (This is not to deny that the Chief Controller's estimates of private-seotor requirements influence the opinion of the Foreign Exchange Committee.)

Committee in the Ministry of Commerce, of which the Secretary, Ministry of Commerce, is the Chairman, and the Chief Controller of Imports and Exports is a membeH. It is the job of the Committee, *inter alia,* to specify the commodities which are to be included or excluded from the import list in each shipping period.

The decisions of the Chief Controller are also influenced by the recommendations of the Import Advisory Council, in the Ministry of Commerce, chaired by the Commerce Secretary and on which the CCI&E also sits. This committee includes as members representatives from Chambers of Commerce and Industry. The broad-based membership of the committee (numbering about 50) enables the Chief Controller to have a cross-section of official and nonofficial opinion on the advisability of making marginal changes in the import list, and tends to reduce the element of arbitrariness in such decision.

The Chief Controller has also to decide on the commodities which should be taken off the import list permanently, *i.e.,* "banned", if the country becomes "self-sufficient" in such commodities. In doing this, he is guided mainly by the recommendations of Tariff Commission. These recommendations are .generally accepted by the CCI&E, but lie can reject them, and he can even ban imports of certain items without the recommendation of the Tariff Commission, if in his judgement ample supplies of import substitutes are domestically available.

The task of assessing the needs of industries is entrusted to the Directorates of Industries of East Pakistan and West Pakistan. If machinery is to be imported for the creation of new industrial capacity, the CCI&E seeks the advice of these Directorates of Industries, who, in turn, are guided by the general investment policy of the Central Permissions Committee in the Ministry of Industries (whose responsibility is to sanction new investment and determine its composition in every year). The investment policy of the Central Permissions Committee is influenced by the allocation for new investment made in the Industrial Investment Schedule prepared by the Ministry of Industries. This Schedule sets ceilings on new investment and investment for balancing and modernization. Thus, in deciding on the imports of machinery required for setting up new industries, the Chief Controller has little independent discretion, for no new capacity can be created without the approval of the Central Permissions Committee.

In deciding how much of each commodity is to be imported during a given shipping period, the Chief Controller assesses market "requirements" of the included commodities by observing price movements. If the price of a certain

***The Committee consists of IS members: the Commerce Secretary (Chairman); the Chief Controller; the Controllers of Lahore and Chittagong; the Deputy Controller, Incharge, Karachi; the Secretary of Commerce, Labour and Industry, East Pakistan; Directors of Industries, East and West Pakistan; and representatives from the various ministries of the Central Government.**

commodity has risen considerably in the previous shipping period, it is taken as an indication that this good is in 'short supply'. Imports of such commodities are liberalized within the limits of foreign-exchange availabilities. There is a Price Check Unit within the CCI&E's office, to keep a record of changes in the prices of imported commodities. Also, the Chief Controller regularly entertains representations from the importers of the included commodities and takes their views into account in allocating foreign exchange to various items. But again, the CCI&E reserves the right to reject or accept such applications. In the case of making changes in imports of machinery, raw materials, and spare parts, the Chief Controller, in practice, accepts the assessment of each importer's needs made by the provincial Directorates of Industries. In cases where the Tariff Commission recommend "partial protection" to certain industries, the Chief Controller takes their opinion into account in reducing the imports of such items. In this way, the Controller is in a position to combine in a certain fashion the market decisions (conveyed to him by the Price Check Units) and the official decisions of the Provincial Directorates of Industries and the Tariff Commission.

In addition to these decisions, the Chief Controller has also to decide who should import the commodities included in the import list. He has full powers to include or exclude any person from the list of "eligible" importers. The manner in which the eligibility of importers is determined is explained below in connection with the description of commercial and industrial licensing procedures.

IV

In addition to deciding what to import, how much to import, and who is to import, the Chief Controller has the task of *i)* allocating each of the imports on the import list to each eligible importer, and *ii)* to fix the monetary limit for both. (The monetary limit for each commodity is fixed to prevent excess imports of certain commodities to keep the relative price structure in a desirable relationship, and to satisfy the relative needs for consumption and investment; the limit for each importer is set to prevent an undesired degree of concentration of import trade in a few hands.) The Chief Controller has also to ensure that the import trade does not become the monopoly of a few regions. Again, all this has to be done for all importers in every shipping period.

For the sake of administrative convenience, total private-sector imports are broadly divided between 'industrial' and 'commercial' imports. The former consist of machinery, spare parts, and raw materials, imported by 'industrial importers' for their own use. The common characteristic of 'commercial* imports is that they are resold by the 'commercial importer', who is a middleman and not a final user. While the bulk of commercial imports are consumer goods, raw materials are also imported for resale.

In implementing final licensing decisions, the CCI&E is assisted by three principal government agencies: *i)* Provincial Directorates of Industries; *ii)* the Central Ceilings Committee; and *iii)* three regional Licensing Boards. (Both *ii)* and *iii)* are under the Ministry of Commerce.) The allocation of industrial licences, to be explained below, is based essentially on the assessments made by the Provincial Directorates of Industries. The Central Ceilings Committee, besides participating in the decisions as to which goods should be imported, also helps the CCI&E in allocating the foreign exchange available for private-sector imports between industrial and commercial imports, among the various commodities as well as the various regions. It is then the task of the three regional Licensing Boards, located in Karachi, Lahore, and Chittagong, to determine the size of the licence (for every specified commodity) to be granted to each of the eligible importers located in their respective regions[4]. Each board consolidates its decisions in a "Basis of Licensing", which is published within a few days of the announcement of the Import Policy. The issuance of licences to importers, both industrial and commercial, is done after the publication of these Bases of Licensing.

Commercial Licensing

Once these Bases of Licensing are announced, the CCI&E and the regional controllers have the task of issuing licences to eligible commercial importers in each region in each shipping period. The difficult task involved in singling out the "eligible importers" from a large number of potential importers has entailed the adoption of "a rule of thumb", which defines eligible importers as those who had import performance to their credit during the period July 1950-November 1952, when there was essentially free importing under the Open General Licence (O.G.L.) system.

Under this O.G.L. system, any importer from any part of the country could import any amount of the commodities put on the so-called "O.G.L. XIII" list. By this notification, the CCI&E announced the commodities that could be imported in a particular shipping period. Importers could then open a letter of credit with their banks and order shipment of the goods. When the Korean War boom ended, Pakistan's export earnings fell rapidly and the O.G.L. system was suspended in November 1952. The Chief Controller impounded all licences issued in the preceding shipping period (July-December 1952) and reissued them under the "category system" which remains the core of commercial licensing today.

STtie Karachi Licensing Board has four members: the Chief Controller of Imports and Exports (Chairman), representatives of Central Ministries of Industries and Finance, and the Director of Industries, West Pakistan. The Lahore and Chittagong Licensing Boards also have four members each, with the regional Controllers of Imports and Exports as their Chairmen. Other members are representatives of the Provincial Ministries of Finance, Commerce and Industries.

Under the category system introduced in January 1953, each importer of the O.G.L. period was given a monetary "category" for each type of goods that he imported. The monetary value of each category was determined by average imports during the five O.G.L. shipping periods between July 1950 and December 1952. A category is uot a definite commitment by the government to issue to the importer a licence of equivalent value, but rather it is in the nature of a standardized unit of account; the actual value of each licence, specified in the Basis of Licensing, is expressed as a certain percentage of the monetary value of each category. The variation in this percentage is the main instrument by which the CCI&E enforces a liberal or a stringent Import Policy.

A category signifies that its holder is considered an eligible importer. Each "category holder" is entitled to only one regular licence for one specified commodity in a shipping period. (One importer, however, can hold more than one category if he imported several types of goods during the O.G.L. base-period.)

It will be noted that the category system enables the CCI&E to determine simultaneously the commodities to be imported and the importers eligible to receive licences. It enables him to start the issuance of licences within a few days after the announcement of the Bases of Licensing. It was, however, felt that the category system tended to be overtly rigid with respect to both the commodities that could be imported and also the number of eligible importers in a given shipping period. To remedy these shortcomings of the system, two new types of licences have been introduced — automatic licences (also called "repeat" licences) and a new type of Open General Licence.

Automatic Licensing

The automatic licensing system is essentially an extension of the category system in that it enables the category holders to get more than one licence in one shipping period for the import of those items on regular licensing which are also on the automatic list. Under this system, an importer becomes entitled to another licence (a repeat licence) as soon as he had utilized the first licence (the initial licence). Repeat licences are issued at 100 per cent of the value of the initial licence. So long as the total foreign-exchange allocation is not exceeded, there is no limit to the number of repeat licences that an importer can get during one shipping period. It depends on how soon he utilizes them. As a proof of utilization,-the commercial importer has to furnish a bill of lading of a value equal to at least 75 per cent of the previous licences. Category holders can

••Previously, a bill of entry was required. However, the policy has been to reduce the items for which the bill-of-entry requirement holds. When the scheme was started in 1961, a bill of entry was required as a proof of utilization for all the commodities allowed to be imported under the scheme, Furthermore, in order to discourage any speculative stock accumulation before issuance of any' licence, importers are required to submit a declaration that stocks held by them or by their banks on their behalf have been liquidated. This restriction applies to all types of licences.

receive automatic licences only for such commodities in respect of which they hold a category and only up to the value they are allowed under regular licensing. For instance, if a category holder is granted a regular licence of a value which is, say, 75 per cent of his category, he can apply for an automatic licence of that amount.

The Chief Controller of Imports and Exports announces a list of commodities allowed to be imported under the automatic licensing system at the time of announcing the Import Policy[7]. He also fixes the maximum and minimum limits on the value of permissible imports of each of the included commodities. As under the category system, one licence is valid for only one commodity. However, one person can get more than one licence; in fact, as many automatic licences as he has categories, provided all of these items are also on the automatic list.

The purpose of automatic licensing was to introduce flexibility into the rigid category system by allowing category holders to get more than one licence in one shipping period for those items which are on both the regular as well as the automatic list. The automatic system encourages a speedy utilization of licences and discourages speculative stock accumulation, since an importer can get another licence as soon as the existing one is utilized and the stocks sold[8].

Open General Licence (OGL)

Perhaps the most heralded component of the commercial licensing system is the reintroduction of a new "O.G.L." system in 1961. The purpose of the new O.G.L. is to allow new importers to have access to foreign exchange and, especially, to enourage new importers from regions of the country where there were no (or few) importers during the 1950-52 base-period.

The present O.G.L., however, is much more restricted than the old O.G.L. system. In order to encourage new importers, no industrial licence holder can

[7]The list of items put on automatic licensing is published as an annexure to the Import Policy.

[8]It is claimed for the system that it tends to lower the prices of the goods imported under the scheme by liberalizing imports and by promoting greater competition and efficiency in the import trade. However, contrary to the popular notion, the advantages arising out of the greater efficiency in the import trade may not be passed on to the consumer. For, given the amount of foreign exchange allocated to imports, the inclusion of new firms will reduce the quotas of others but, as the supply of imports remains the same, the prices of imported goods may not fall. The entry of new importers will, however, reduce the profits of the established importers. If more foreign exchange is allocated to an item when it is placed on automatic licensing, as is often the case, then the resulting fall in prices, if any, will be due to greater imports and not due to automatic licensing *per se*. The same results could be approximated under any system of licensing simply by allocating a greater amount of foreign exchange to private imports. Prices may, however, fall under the system as the importer will now have less incentive to carry large stocks as he can get another licence as soon as the previous licence is utilized. With any given amount of imports, a decline in the inventory-sales ratio would increase the effective supply and tend somewhat to lower prices.

apply for a new O.G.L. licence; and similarly, there is a prohibition against all commercial licencees with categories in excess of Rs. 1,000 during the July-Decemper 1960 shipping period. Furthermore, a wider regional distribution of licences is promoted by excluding importers located in Karachi, Lahore, Dacca, Narayanganj and Chittagong from the list of those eligible to receive an O.G.L. licence. In addition, the Chief Controller fixes, in each shipping period, the items that can be imported against the O.G.L. and the monetary limit for each licence[9]. Moreover, any existing or future restrictions placed on the import of any item automatically apply to licences issued under the O.G.L. system. For example, certain items can be imported only for East Pakistan.

Within these limitations, which appear sizeable, anybody interested in importing an item placed under the O.G.L. should be able to get a licence for any item listed. The importer, however, has to get himself registered, for which he must fulfil several formalities. The applicant has to apply on a prescribed form and must submit his application by a certain deadline, which is generally the end of February and July for the first and second shipping period, respectively. However, once he is registered as an eligible importer, all he has to do thereafter is to open a letter of credit with his bank. His bank arranges the necessary licence for him (it is claimed) in 24 hours. Each O.G.L. importer is eligible for only one licence but repeat facilities are available (as under automatic licensing). The O.G.L. licences are for one shipping period only, at the end of which the importer must reapply if he wants a licence for the following period.

The scope of the new O.G.L. has been gradually enlarged by increasing the number of items allowed under this type of licence and by raising the minimum units admissible for various items. The O.G.L. list now consists of a variety of items, like iron and steel, tractors and tractor spares, spare parts for automatic vehicles, tyers and tubes, drugs and medicines, and books. It was claimed by the Commerce Minister that as a result of the introduction of the O.G.L. 'the newcomers outnumber the category-holders' [2]. This statement should not, however, be taken to mean that the total amount of foreign exchange licensed under the O.G.L. is larger than that licensed under regular licensing; exactly, the opposite is true. Over 90 per cent of commercial licensing is still done within the category system. However, a net addition has been made to the ranks of importers, and wider regional distribution of import licences has probably been achieved.

Industrial Licensing

In implementing his decisions regarding industrial licensing, the CCI&E is faced with a more complicated problem than in commercial licensing. As in

9The O.G.L. list is published as an annexure to the Import Policy.

commercial licensing, he has to allocate foreign exchange to each industrial goods and to each industrial importer in every shipping period. In addition, he makes foreign exchange available separately for the "current requirements" of the existing installed capacity and for the creation of new capacity. He also makes a distinction between industries producing mainly for home production and those producing for exports.

In tackling the first problem, the CCI&E has relied on the Provincial Directorates of Industries. The Directorates have evolved a "quota system" to routinize the issue of licences to industrial importers for the import of raw materials and spare parts. Under this system, each eligible industrial importer, called the "quota-holder", is assigned a quota signifying that its holder is an eligible importer and specifying his "requirements" for industrial raw materials and spare parts for one shipping period. This enables the Provincial Directorates to determine simultaneously the commodities *(i.e,* spare parts and raw materials) which should be imported, and the industrial importers who are eligible to import them in each shipping period.

Most of the existing quotas were created on the basis of survey of industrial units, started in 1955/56. It was provided that similar industrial surveys would be regularly undertaken by the Provincial Directorates of Industies so that new quotas could be created. (It will be noted that unlike categories which have not been increased, the creation of quotas is a continuing process.) The Provincial Directorates specify the percentage of his quota that each quota-holder will be allowed in each shipping period. Having done this, the Directorates issue to each quota-holder an "assessment certificate" which indicates his 'requirements' for raw materials and spare parts to operate on a single-shift basis. The CCI&E then issues industrial licences called 'regular industrial licences' largely 011 the basis of these assessment certificates.

The CCI&E also issues licences for importing machinery for new industrial capacity in the country. However, as pointed out earlier, the Central Permissions Committee, in the Ministry of Industries, is mainly responsible for sanctioning the creation of new capacity and the balancing and modernization of the existing industries in the private sector. Accordingly, applications for new industries are received by the Central Permissions Committee. Upon their approval, applicants become entitled to industrial licences which are automatically issued by the CCI&E. Furthermore, a person intending to establish a new industry, or planning to add to an existing one, also becomes entitled to an industrial licence if his loan application to the Pakistan Industrial Credit and Investment Corporation or to the Pakistan Industrial Development Bank is accepted. The acceptance of a loan application implies the approval of the Central Ceilings Committee and, similarly, results in the automatic issuance of a licence by the CCI&E.

The CCI&E, thus, issues industrial licences exercising little discretion of his own for machinery, spare parts, and raw materials in each shipping period. These licences are not interchangeable *(e.g.,* a machinery licence is valid only for the import of machinery; it cannot be used to import raw materials or spare parts). However, their actual issuance, as in the case of commercial licences, follows the announcement of the Bases of Licensing. These regular licences are issued only once in a shipping period. (However, applications for additional licences in the case of emergency replacements of machinery are always entertained.)

Licences on Request Basis

The CCI&E also issues licences on a request basis to encourage certain industries with an export performance or an export promise. For this purpose, in 1961 a survey was made of industries with an export potential or export performance, and licences were issued to eligible units within these industries to meet their requirements of balancing and modernization. Repeat facilities were extended to this group of industries, *i.e.,* the "request importer" can get more than one licence in one shipping period under the system. At the beginning of each shipping period, the Controller announces a list of industries put *011* the "Request Basis". According to the scheme, industries are divided into three subgroups: *i)* industries which are licensed on the basis of their request for the shipping period; *ii)* industries to which initial licences for each shipping period are given at 80 per cent of the value licences in the preceding shipping period (further licensing to this group depends on their export performance); and *iii)* industries which are licensed on the same basis on which they were licensed in the preceding period 10.

The industrial importer in the first group is required to make an assessment of his requirements of raw materials and spare parts for the ensuing twelve months (instead of the usual period of six months). Licences are issued immediately for the amounts likely to be utilized in one shipping period and, for the balance, an imdertaking is given to the applicant that a licence or sub-authorization will be issued to him, subject to the availability of foreign exchange, well before the commencement of the next shipping period. In this group are included nine industries, such as sports goods, surgical instruments, tanning and carpet-making, which are all established export industries. These industries form the "request group proper" and get licences on the basis of their own assessment of their needs, so long as these estimates are not too unreasonable. Generally, a request which does not exceed the industries' requirements to operate on three-shift capacity is treated as reasonable.

The licensing procedure for the request group requires the applicants to file with their applications for licences a schedule showing the dates for which

lOThree separate lists of such industries are published as an annexure to the Import Policy.

confirmed irrevocable letters of credit will be established. Where the applicants do not operate on the basis of a letter of credit, they are required to indicate their programme of shipment.

Provisions have been made to ensure that the industries falling in groups *ii)* and *iii)* fulfil their export promise. The general procedure is to require proof of the utilization of the previous licence[11]. Subsequent licences are then issued at 100 per cent of *f.o.b.* value of exports. Those who fail to fulfil their export undertakings have to surrender an equivalent amount of foreign exchange in bonus vouchers. (These restrictions do not apply to the first group of industries.)

It may be noted that the scheme seeks to remove supply bottlenecks in respect of import requirements of only those small export industries which are established exporters, and not of any of those which may have an export promise.

Import Bonus "Vouchers

In addition to the commercial and industrial licences, a part of the private-sector imports is made against import-bonus vouchers issued under the Export Bonus Scheme, introduced in 1959 as an additional incentive to exporter. Under the scheme, exporters are allowed to retain a specified part (usually between 20 per cent to 40 per cent) of their foreign-exchange earnings (called the bonus) in the form of "import-bonus vouchers". The State Bank of Pakistan is committed to issue bonus vouchers equal in value to accruals to Account No. 1 in a given shipping period[12]. Bonus vouchers are marketable and command a positive premium in the market. On the basis of these vouchers, the CCI&E is obliged to issue "bonus licences". The bonus importer is free to import any item, whether industrial or commercial, on the bonus list announced by the Chief Controller with the Import Policy.

Import-bonus vouchers (and the bonus licences) are issued against Account No. 1 and, hence, formally fall outside the pale of the regular licensing system. Nevertheless, the Chief Controller regulates the effectiveness of the system in many important ways. First, as pointed out above, the import-bonus list is drawn up by the CCI&E, and he has the powers to expand or curtail it. More fundamentally, the CCI&E also prescribes in every shipping period the rate of bonus which each exporter is allowed. He also has the power to include or exclude any exporter in the list of covered industries. Thus, although falling outside the scope of the regular licensing system, the bonus vouchers should be considered as a significant supplement to it.

It is important to note that the system of import-bonus vouchers is based on principles entirely different from those on which the licensing system is

[11]Utilization in this context means opening of irrevocable letter of credit for 100 per cent of the value of the shipment or, at least, 75 per cent of the value of earlier licences,

***12See* page 91.**

based. Another important difference between the two systems is that whereas the licences issued under the latter system are granted at the official rate of exchange, those issued under the former can be bought only at the market rate *(i.e.,* at a positive premium) which, due to the excess demand for imports, is substantially higher than the official rate[13].

v

We have now before us a picture of the scope, structure, mechanics, and rationale of the licensing system. We must, however, take into account the direct and indirect effects that licensing policy may have on resource allocation. In our present study, we cannot say anything definitive about the actual effects that licensing policy has had. But it is important to note that there does exist a crucial relationship between licensing policy and the pattern of domestic resource allocation.

Because of extensive controls over the import of capital, intermediate, and consumption goods in the private sector, the government influence directly the levels aud composition of consumption and investment in the economy and can also influence the pattern of investment by allocating larger or smaller amounts to particular types of industrial imports. The ultimate impact of these direct control measures, however, cannot be assessed without taking into account the fact that the licensing system has very important indirect effects on the investment choices between consumer-goods and capital-goods industries. The decision whether to import spare parts or raw materials or to produce them in Pakistan is influenced by the allocation of import quotas for the items themselves. These indirect effects flow from the protective aspects of the licensing system. Protection affects the relative profitabilities of undertaking various production activities and/or the per cent of capacity at which existing facilities are utilized. If smaller amounts of luxury consumer-goods imports were licensed, the resulting high prices of such goods would increase the profitability of new investment in the luxury-goods industries. On the other hand, if capital goods, spare parts, and raw materials were liberally licensed, the lower prices of these goods would mean lower profitability and less domestic investment for the production of such goods.

In addition to its effect on the relative profitability of investment in different industries, the licensing system also influences both directly and indirectly the basic investment choice between producing for the domestic market and for exports. The system of request licences, covering industries with an export "performance" and prescribing penalties for these who do not fulfil their promise, helps and encourages the covered industries. In addition, the Export

I31t must, however, be pointed out that the rate of premium on bonus vouchers sold in the market does not measure the extent to which the rupee is overvalued. This would be so if all imports were made against bonus vouchers. It is, however, a rough indicator.

Bonus Scheme is a direct financial incentive to industries with an export promise. These direct effects are export-promoting.

The indirect effects of licensing, however, strongly favour production for the domestic market. The regular licensing system not only has different indirect effects on various industries producing for the domestic market (as noted above) but, in general, the restriction on imports encourages production for the protected domestic market relative to exports. While these effects are generally recognized, it is seldom realized that the Export Bonus Scheme also has important protective effects. Whereas the rate of bonus determines the incentive to export, the height of the premium, besides being a determinant of the magnitude of the export incentive, is also a measure of the degree of protection provided to import substitution, actual and potential, of the goods imported under the scheme. Thus, by manipulating the rate of bonus and influencing the rate of premium, the licensing authorities affect the relative profitability of producing for exports or for domestic use. A high rate of bonus accompanied by a relatively low level of premium will provide a greater relative incentive to exports than to import substitution, compared with a high-level premium combined with a low rate of bonus. Thus, while a higher premium directly encourages exports, it gives a relatively larger indirect encouragement to import substitution[H]*.

VI

The preceding sections have presented: the place of the licensing system in the broader setting of exchange controls; the objectives of the system and the fundamental decision-making required to give these objectives a practical shape; the mechanics of the system, indicating the mode of its implementation; and finally, the implications that licensing policy may have for resource allocation. Because this study has been essentially a detailed description of the licensing system, no summary will be attempted. Rather, this final section will stress certain aspects of licensing requiring further research.

One basic question concerns the administrative efficiency of the licensing system: how well is it performing the job for which it was designed? Do the various authorities involved have adequate staff and sufficient basic information to perform their tasks effectively and to achieve their desired objectives? From our description, it is clear that many agencies, officers, and committees, both central and provincial, are involved. How well are these groups coordinated?

Another question relates to the actual impact of the licensing system on the composition of imports and the allocation of resources. Commercial and industrial licensing cover only a part of total imports. How large is this part

[H]For a more rigorous demonstration of this point, *see* [3].

relative to other imports — public sector, semi-public, bonus-voucher, project aid, and **commodity** aid? What have been the past trends in imports of consumer, intermediate, and capital goods ? Which industries have been encouraged by the direct and indirect effects of the licensing system? What are the policy alternatives to the licensing system: import surcharge, licence auctioning multiple exchange-rates, devaluation, *etc.7* How will each of these policies ration foreign exchange among competing uses?

Although our descriptive study does not provide answer to these important questions, a few comments on the effectiveness of the licensing system may be, in order, based on certain general characteristics of the system itself. There is a general realization in the government that the licensing system's reliance on rigid categories and quotas has undesirable effects. It is rigid both with respect to the number of the commodities that can be imported and the number of importers who can import them. A major part of the total import trade is concentrated in the hands of the category- and the quota-holders, and "monopoly" or "unearned" profits accrue to them due to the excess demand for imports at the current rate of exchange. Accordingly, the government has taken various steps, noted above, to introduce greater flexibility and competitiveness into the system.

The limited experience with the reformed licensing system has not been particularly encouraging, however. The automatic licensing system seems to have stimulated a scramble for licences and the tendency to import even in excess of current requirements; and the facility to new entrants provided by the O.G.L. has flooded the CCI&E's office with new applications much in excess of the total foreign-exchange availability. Moreover, the system of request licences provides a strong incentive to the importer to present exaggerated requests. Furhermore, there is evidence that a blackmarket exists in import licences, which command a positive premium depending 011 the intensity of demand for the imported goods. The blackmarket may become all the more active because of the government's efforts to encourage entry of smaller importers into the import business and to ensure a wider regional distribution of import licences. For, the so-called small man, particularly the one situated in up-country, finds it safer to sell his import licence to the bigger importer (the big category-holder) who knows the import business better i-.

The result has been increased burdens on the CCI&E to ensure that repeat licensing does not simply lead to large stocks of imported goods; to check that

isApart from the social and moral considerations, blackmarketing in licences may be, to some extent, a good thing from an economic point of view. Those willing to pay a premium for the licence may well have greater need for the items to be imported than the licence-holder, or they may be able to put such items to a more efficient (or at least more profitable) use. Furthermore, a blackmarket may tend to cancel out the inefficiency involved in the government's policy of encouraging very small importers who have to buy in small lots and who have little experience in import trade.

the requests for industrial licences are not 'too unreasonable' to make certain that export promises are fulfilled; and to take special steps to discourage black-marketing in import licences, *etc.* Thus, there is reason to believe that decisions tend to be more minute under the present so-called "reformed" system than under the older category-cwm-quota system. A vicious circle, therefore, seems to exist, in which the attempt to "liberalize" the import trade creates a situation in which it has to be regulated still more rigorously.

The basic problem is that, at the current rate of exchange, there exists an excess demand for imports. The licensing system had been introduced to ration foreign exchange in order of 'essentiality' among competing uses and the users at the fixed official rate of exchange. The category and the quota systems were devised to cope with the inevitable consequences of such a policy. In a situation where licences are riches, an attempt to relax controls may make things more difficult for CCI&E. This reflects the fact that it is the undervaluation of foreign exchange, as much as anything in the licensing system itself, which is responsible for making the system so difficult to administer.

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Notes on the Concept of Import **Substitution**

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Notes on the Concept of **Import Substitution**

Gordon C. Winston

"I meant by 'impenetrability' that vve've had enough of that subject, and it would be just as well if you'd mention what you mean to do next, as I suppose you don't mean to stop here all the rest of your life".

"That's a great deal to make one word mean", Alice said in a thoughtful tone.

"When I make a word do a lot of work like that", said Humpty Dumpty, "I always pay it extra" [2].

By these rules, "import substitution" should be paid extra since it has been used to mean many different things. These notes are intended, therefore, to clarify or at least specify some of the issues and ambiguities surrounding discussion of import substitution in the hope that future research and policy can thereby be more efficiently directed and these, sometimes muddied issues, can thereby be more clearly understood. Since its objective is to point up sources of conceptual confusion that have appeared in import-substitution studies and policies, distinctions will be drawn sometimes too sharply where this is useful, even at the risk of oversimplifying a complicated problem. Finally, it should be clear from the outset that the paper makes no pretence at major originality.

There is wide agreement that import substitution means "the domestic production of that which would otherwise have been imported" 1. But agreement here only pushes dissention back a step since few will agree on what "... would otherwise have been imported..." As with any game of What Would Have Been, the outcome is often determined by unspecified assumptions. So this phrase sets the outline of the ambiguities surrounding import substitution.

lOr "an increase in...", but that is not an issue here.

A. History or Strategy

The most important variable in specific studies or questions of import substitution is their focus — whether they describe a-long run *historical pattern* of import substitution (coincidental with time, growth, increasing autarky or something) or whether they deal with a *development strategy* by which import substitution is to be induced.

This distinction is critical in part because of the attention received by Chenery's attribution of an important place to import substitution as a *cause* of economic growth [3][2]. It has been too easy to suggest from his evidence that a strategy of import substitution can cause growth. Much of the persuasive appeal of this suggestion might have been avoided, had Chenery spoken of import substitution as "a concomitant" of economic growth or something else, rather than "a cause" — the smell of *post hoc* is awfully strong.

But the issue is more than a logical nicety since the conditions under which import substitution occurs are very different in the two cases. Chenery's study referred to import substitution as a change in the pattern of a country's imports *brought about by changes in comparative advantage.* These, in turn, were the results of changing relative factor endowments, increasing labour skills and the economies of scale that result from expanding incomes. Import substitution induced by these long-run structural changes is a far cry from the import substitution that may be brought about by a policy of closely licensed imports under disequilibrium exchange rates and it is highly improbable that a relative increase in domestic production under these two very different circumstances would have the same effect on a country's growth[3]. In short, import substitution may always accompany economic growth, yet a policy that tries to force import substitution may have repercussions that stifle growth. Whatever else we can learn from extant long-run historical or cross-section studies, they are *not* going to tell us whether an import-substitution strategy will encourage economic development.

B. Growth or Autarky

Accepting that our primary interest is in import-substitution *policies,* rather than history, the next question is the *purpose* of an import-substitution policy. Imports can be reduced relative to domestic production (or relative to What Would Have Been) in order *a)* to achieve a higher rate of growth of income, or *b)* to achieve a lesser "dependence on" or "vulnerability to" the uncontrollable actions of foreigners.

[2] **This is no place to quibble about the historical applicability of cross-section results.**

3Infant industry arguments blur this useful distinction. To the extent that they are relevant (and specific baby industries can be identified), and import-substitution policy may itself induce changes in comparative advantage by inducing scale- and time-economics. But other policies may do this more efficiently [11],

There is little question that our primary concern is economic growth and that autarky as a social goal may be antithetical to growth. But though the gospel of autarky itself may arise from political ideology, its recommendations will often parallel those of that large body of purely economic pessimists who see developing countries as facing declining export earnings (and capital flows) hence the *necessity* to reduce dependence on foreigners through import substitution. Both are autarkic since each, for its own reason, ignores export expansion and tries, instead, to reduce imports.

An apparently similar if less emotional kind of autarky rests on the idea of the "essentiality" of imports •— that dependence on foreign supplies *per se* may not be objectionable, but, due to weather, war, shipping strikes or business cycles in advanced nations, the country's export earnings will *fluctuate* uncertainly and—applying Stigler's classic point [13] to aggregates'*—any policy that reduces a country's ability to *change* its level of imports in this uncertain world carries an appreciable cost. In simplest terms, this cost is measured by the increase in required international reserves (in an assumed capital-poor country).

Looking more closely at these apparently similar concerns, an interesting conflict appears. On the one hand, the traditional view that the exporter of primary products faces limited world demand for its exports (with or without declining terms of trade) sees the country as suffering an import (=export) constraint to its growth. Given inadequate growth of imports, then adequate growth of domestic income obviously requires a reduction in the ratio of imports to domestic income. So on this basis, the desirable direction of more "independence" from foreign trade lies in a reduction of import coefficients.

On the other band, if a country "replaces imports" by the usual type of import-substitution policy—producing finished goods domestically, and using its imports to bring in goods at progressively "earlier" stages of production—it increases the proportion of domestic value added that is supported by its imports and thereby *reduces* the flexibility of imports, *i.e.,* it increases the domestic cost, in lost income, of any given reduction of imports[s]. It is obviously cheaper for a society to cut back §100 worth of finished rayon shirt imports that support §3 of domestic income and retail employment than it is to cut back $100 worth of chemical cellulose that supports a §500 output of rayon shirts and $400 of domestic income and employment. In importing progressively less processed products, imports will have become more complementary to domestic income and employment, increasing the social cost of variations. This comes up again later in a critical way.

•Which is, that lowest absolute cost output may be attained with a plant that is incapable of achieving these low costs over a wide range of operating levels. A different plant design might give somewhat higher minimum costs, but maintain these over a usefully wider range of outputs.

s Unless substitutability with domestic production is increased concurrently, which seems most unlikely.

So the static or smooth equilibrium path argument discourages a country's dependence on imports *per se,* calling for *lower* import coefficients, while the emphasis on flexibility stresses a country's vulnerability to fluctuations in foreign demand, hence its "independence" from trade is to be found by *increasing* the import coefficients so that any necessary change in imports is less magnified in its impact on domestic income and employment.

Barring evidence to the contrary, however, the contradiction between these concepts of "independence" would not seem to require too much concern simply because too many factors are likely to modify the conclusions of this very simplified sort of model. First, systematic "movement back" in the level of processing of the products imported will not affect all industries at the same time — it will proceed unevenly between industries (as it must in the light of interrelationships on the supply side). There would, on this count, be a residual of "11011- (or less-) essential" imports of finished goods which could be varied with little impact 011 income and employment*. This consideration would certainly recommend against concentrating all imports in intermediate goods, but it wouldn't recommend against any or even most imports being made up of intermediate goods.

Second, and more realistically, both Chenery's evidence [3] and Kindleberger's theoretical emphasis [7] suggest that by far the most important aspect of "import substitution" is the *change in the pattern* of imports and demand. The pattern of imports changes systematically not only because imports increasingly consist of goods that are less highly processed, but also because of changes in the pattern of final use — *new* products are imported as the old ones are increasingly domestically produced.

Both of these considerations reduce the threat of inflexibility in the process of "moving back" in production stages of imports. But they stress the importance of the composition of imports.

C. Aggregate, Sectoral or Industrial

All this immediately implies something about the need for disaggregation. Autarky (in its ideological as well as unexpandable export-market versions) requires a decline (relative or absolute) in *aggregate* imports. Its rationale depends on aggregates and, as illustrated above, autarky stands up less well in either version when disaggregation is accepted. (Note, too, that on the export side, "disaggregation" leads to less pessimistic views of the possibilities of expanding exports.)

[*] Though this is certainly not the sole criterion on which such decision of "essentiality" would be made.

But import substitution defined with regard to aggregates — say as a declining share of imports in GNP — runs into two troubles. First, a decline in the ratio M/GNP cannot be identified as "import substitution" any more than as "export atrophy", "capital contraction" or "reserve expansion". In the long run, imports have to equal exports plus capital inflows — changes in aggregate imports can have too many causes. Second, there seems to be little correlation between relative aggregate imports and economic growth. Though he didn't report it as such, the results in Chenery's "Patterns. ." [3] show that there is no signific antchange in aggregated M/GNP despite the very real changes in similar ratios disaggregated for industries and sectors among the countries studied[7]. It would be better to run another study in which the data and concepts were entirely comparable between the sectors and aggregates (his are not). But it is probably not worth it unless we somehow attribute some significance to the aggregate measure of imports and national income. However, if the aggregate ratios of imports to income appear not to have been related to development, ratios of important subgroups have. So the focus of attention on industrialization as the *sine qua non* of development shows that both in cross-section [3] and in time series for selected countries [4], there is a systematic decline in the ratio of imports to total supply of specific industries and industrial sectors as industrialization and development proceed. In this sense Chenery attributes a large part of "the cause" of industrial development to import substitution. But it is important to stress again that decreasing ratios of imports to output for industrial goods along with a constant ratio for the aggregates implies either increasing relative imports of some other goods or, more reasonably, the importation of new goods.

The other dimension of disaggregation is also pertinent to a description of past or "natural" import substitution as well as to policies of import substitution. This refers to the differential impact of import substitution among industries when they are classified by use into consumption, intermediate, and capital-goods sectors. Again, using Chenery's data, the importance of a declining ratio of imports to supply in explaining domestic growth is greatest (77 per cent) for capital goods, somewhat less (66 per cent) for intermediate goods, and quite a bit less (13 per cent) for consumption goods. Just what these numbers mean is a question to which we will return but it would seem that our attention should be directed toward disaggregated measures of import substitution.

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[7]His Table 4 [3, p. 634] shows the results of the regression $M=\gamma_0 Y^{\gamma_1} N^{\gamma_2}$ so that $M/Y^* = \gamma_0 Y^{(\gamma_1-1)} N^{(\gamma_2-1)}$ where Y^* is national income and Y is per capita income. (γ_1-1) is $-.013$, but γ_1 has a standard error of .069. This is not significantly different from zero, hence it does not indicate a systematic change in the proportion of aggregate imports with increasing income.

D. Fixed Investment or Increased Investment

A good deal of Australian energy in the late 1950's was needlessly expended for want of explicit recognition that an import-substitution policy can have either of two effects (or both): *a)* it can influence the *allocation* of the country's fixed quantity of investible resources, favouring investment in those industries that produce import-competing goods; or *b)* it can change the *level* of investible resources available to the country. The difference between these two bases of analysis is the complexity of the secondary effects of the investment that have to be considered. If total investment is fixed and its allocation alone is the question (as in the usual case of a savings constraint on investment), then the income effects of an investment in an import-competing industry can be ignored. The fixed amount of investment would have increased incomes anywhere and the fact that this investment is in an import-competing industry makes no difference-. But if the investment in an import-competing industry is net *new* investment that would otherwise not have taken place, then in addition to the direct effects of that investment (on saving, consumption, imports, output) it must be credited with the indirect effects that derive from higher incomes and employment. "Import substitution"—as a reduction of imports that results from such an investment—may then be negative if the direct import content of the product of investment plus the income-induced imports are sufficiently large. (Note that this is an absolute increase in M but not an increase in M/Y. We will return to the touchy proportionality question below.)

The most interesting suggestion of a direct effect whereby import-substitution policies influence the aggregate level of investment is by Harry Johnson [6]. He describes the results of import-substitution policies — changing the relative profitability of importation and domestic manufacture of a product— as one that induces the former supplier to set up a branch within the country rather than give up the market. This, of course, is what has happened—in another context—with American firms in face of the European Common Market. This investment is a net addition to capital inflow induced by the policy of import substitution. But if this is, in fact, a typical result of import-substitution policies in developing countries—that they bring with them foreign ownership and control—then a number of additional questions are raised that revolve around the efficiency, motivation, competitiveness, and appropriateness of techniques of production by these firms. If import-substitution policies lead to the growth of foreign ownership in the industrial sector, this fact might recommend a very different direction of study.

SThis is an oversimplification, of course. It *can* make a difference if *1)* capital productivity . is systematically different between import-substitution investment and other investments, or *2)* if there is something that changes the behaviour of saving out of i ncome arising from these two classes of investment. My guess would be that such differences are unlikely that where such differences are found they are more attributable to sectoral or product differences than to import substitution or nonimport-substilution investment. I know of no evidence on this, however.

Another case of feedback from import-substitution policy to the *level* of investment resources available for growth would be found if aid agencies were to try crudely to encourage such policies with more or easier capital for those projects that represented import substitution. Although I know of no such bias in AID, the World Bank or other lenders, it, like the case above, would complicate the study of import substitution since it would no longer deal with questions of investment allocation alone.

Power's proposal [10] should be mentioned here since it too involves feedback on investment levels. But it differs from the above in two important respects: /) the feedback is dynamic — today's actions affect *future* levels of investment rather than present levels as above — and ***2)*** though they may — even universally—be incorporated in particular import-substitution policies, they are logically separable from import substitution as such.

Power's is a Mahalanobis-type model—a development of the fact that a pattern of future demand may be ordained by the composition of the capital stock. If there is little substitution in use between capital and consumption goods, the allocation of current investment will constrain the future division of income between consumption and saving and therefore, *ceteris paribus,* the future rate of investment and growth.

To be pertinent to the study of import substitution, however, it must be shown that there is something particular in an import-substitution policy that *increases* the risk of over-absorption of consumption goods ("over", in that it's inconsistent with planned consumption and saving). But even if it could be shown that policies of import substitution magnify these risks of embodying inappropriate future demand patterns, it would seem preferable to deal with capital-embodied demand as a *general* aspect of plan consistency, not only as it appears in the restricted segment of the plan that is import-oriented. For this reason—and because it seemed to be a very fruitful direction for study—I have dealt with capital-embodied investment patterns in a separate paper [15],

Finally, recent directions of research have suggested that investment in import-substitution industries can feedback on future investment in yet another way [11; 12].

In sequence:

a) protection of manufactured goods leads to import-substituting investment in finished goods which then require imported intermediate goods for their production so

b) this shift in imports from finished to intermediate goods increases the "essentiality" of imports by increasing their complementarity with domestic income and employment so that

c) in response to this increased essentiality the government makes imports of intermediate goods available to domestic manufacturers at favoured terms — through differential tariff, easier licensing, or whatever, relative to the finished goods. This means that

d) import-substitution investment in these intermediate goods is systematically discouraged *both* by a level of protection that is absolutely lower than that afforded finished goods, and by the additional protection to consumer goods implicit in favoured prices for their inputs.

So the quantity of investment allocated to "import-substitution" industries may be initially high but, due to the unfortunate response to the increased "essentiality" of imports after step *a),* its composition is distorted and import substitution must stop when opportunities for investment in finished goods are exhausted.

E. What Denominator?

With few exceptions, import substitution is measured in relative terms so it is important to be in agreement about what it's relative to. Imports have been compared ***J) to*** total supply, ***2)*** to income, ***3)*** to domestic expenditure on goods but not on services, ***4)*** to total consumption expenditure, and ***5)*** to domestic value added. Almost any one of these may be appropriate to a particular question, but the behaviour of any two may not be similar.

F. What Would Have Been?

Once again the distinction between descriptive historical and policy studies of import substitution is important. In a historical study like Chenery's, the definition of import substitution is pure tautology—since there is no conventional meaning attached to it, whatever he chooses to call by that name is import substitution. But in a policy study, a good deal more is involved because, in defining something as import substitution, we imply What Would Have Happened in the absence of such a strategy. So there is no basis for arguing with the tautology of a historical study and its definition of import substitution at the same time that there may be room for real disagreement on appropriate assumptions of what would have happened in the absence of any policy of import substitution. (Tinbergen's "forecast step" in planning [14].)

The simplest assumption that can be made is that without a policy of import substitution there would have been no change in the *absolute* quantity of imports (the level of disaggregation having been previously specified). Then import substitution is measured in absolute terms as a decline in the quantity of imports®. Only one author I have found has used this definition and, to no one's surprise,

'The only niggling question that remains (here and elsewhere) is whether "quantity" is in value or real physical terms.

he found that there has been virtually no import substitution over the course of the growth of the Australian economy [5].

Accepting the need for a *relative* measure of imports in describing import substitution, the most common of these is that import substitution occurs if there is a departure from proportionality *(vis-a-vis* one of those denominators specified above). Then import substitution has occurred when there is a decline in the proportion represented by imports—an increase in domestic production. This is the measure used by Chenery and by Lewis and Soligo [9]. It should be stressed that there can be no faulting Chenery's tautology but there may be a basis for disagreement with Lewis and Soligo if proportionality does *not* appropriately describe what would have happened in the absence of an import-substitution policy.

There are two difficulties with measuring (and defining) import substitution as a change in the proportion of imports to total supply of a commodity (to specify a denominator arbitrarily):

1) This definition implies that in the absence of an import-substitution policy there would have been a proportional increase in imports and domestic supply—neither more nor less—and this seems quite unreasonable. This measure will, what's more, tend to overstate the degree of import substitution in industry achieved by any policy if the forces described by Chenery are operative. This objection would be softened if it were likely that people could simultaneously juggle two separate meanings of "import substitution"—one a tautological measurement and the other a description of the results of a policy. (Perhaps Chenery's cross-section coefficients would make a better base for determining What Would Have Happened.)

2) This definition takes the study of import substitution out of its context as an aspect of investment allocation. It is virtually impossible to talk meaningfully about what the inducement of investment into import substitution *should* have been to attain the growth goals.

These correspond to Tinbergen's [14] simple but helpful distinction in the planning process between a) a forecast under the assumption of unchanged policies that is compared to *b)* desired (planned) goal so that c) the difference can be reconciled by active policy. *1)* above is *a)* while *2)* is *c),* the quantities involved in reaching the plan by this policy—What Should Have Happened.

To illustrate, consider Chenery's estimate of the amount of sectoral growth "caused by" import substitution as a change in the ratio of imports to total supply. They were 77 per cent for capital goods, 66 per cent for intermediate goods, and 13 per cent for consumer goods [3].

It would be tempting to suggest that this should lead import-substitution policies to stress the more basic—capital- and intermediate-goods—industries. But however desirable such a policy may be, Chenery's evidence says nothing of the sort since measures depending on proportionality of output do not say anything about *how much* relative investment was allocated where. That the typical underdeveloped country has too little capital formation for sustained growth means that consumption is relatively large; that production methods are unsophisticated so that intermediate goods are relatively less important and a very small *absolute* change in the size of domestic capital-goods and intermediate industries could easily account for the very large *relative* changes in the domestic production of these goods. For consumer goods the opposite is true—a large absolute increase in domestic production could represent a small relative increase. If growth is the objective, proportionality would seem to say very little about the effectiveness of investment allocation.

Proportionality falls short of adequately measuring import substitution but it is impossible to know what to suggest as an alternative. Khan's use of expenditure elasticities of demand as the basis for measuring import substitution [8] seems unsatisfactory for the reasons implied above in discussing a Mahalanobis-type model—that it then becomes an issue, not of investment in import substitution *per se* but of investment import substitution *in consumption goods.* This goes so far that there is no simple way to measure import substitution in intermediate- or capital-goods industries using the Khan's definition[10].

Even ignoring this very real problem, because aggregate consumption can be assumed to be under constraint in a developing country, total (planned) saving is higher than it would be voluntarily at any given income level. In this disequilibrium, expenditure elasticities — the pattern of demand that would follow from increasing incomes under conditions of free choice — are questionably applicable [9].

As is so often the case, there is no all-purpose measure of the effects of import-substitution policies and it can only be hoped, since measure we must, that each alternative is used with recognition of its potential pitfalls.

[0This is almost unfair since capital coefficients would provide an analogous teohnique for these industries.

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Import Substitution, Export Expansion and Consumption Liberalization: A Preliminary Report

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Import Substitution, Export Expansion and Consumption Liberalization: A Preliminary Report

Azizur Rahman Khan

In recent literature, attempts have been made (notably by Hollis B. Chenery [1]) to analyse the factors responsible for industrialization. Based on an interindustry input-output table, this type of analysis relates the growth of industrial output to factors, such as import substitution, domestic and foreign final demand expansion, and the expansion of intermediate demand.

A similar analytical framework applied to the case of Pakistan would be extremely useful in determining the pattern and characteristic features of our industrial expansion. Attempts to prepare a workable input-output table are, however, thwarted by the absence of necessary quantitative information[1]. One, therefore, has to settle for a much more modest analytical framework in order to pursue a not very different objective.

THE PURPOSE OF THE STUDY

Consumer-goods industries, such as cotton textiles, started growing in Pakistan with the policy of replacing imports by domestic production. It is widely believed that in an import-competing industry any increase in domestic-output represents import substitution since in its absence imports would have been necessary to maintain the same availabilities. The proposition, however, is incorrect. Once the production of a commodity that was formerly import-

[1]The results of a preliminary attempt undertaken at the Pakistan Institute of Development Economics are reported in [2],

ed is undertaken at home, its domestic absorption frequently exceeds what would have been absorbed or demanded if the commodity had continued to be imported. If the commodity is a consumption good, the effect of this is to liberalize consumption, and the contribution to aggregate national saving and the development effort is consequently diminished.

To look at the same problem from another side, one can proceed as follows: A country's commitment to achieve an increased rate of growth has implications for a number of things. An increased marginal saving rate has to be achieved. This means that the growth of aggregate consumption has to be limited which in turn means that the domestic consumption of individual commodities must be limited to some "normal" level. This normal level of consumption (absorption) for a commodity can be calculated on the basis of the permissible increase of aggregate consumption expenditure together with the "normal" expenditure elasticity of demand for that commodity. If in the process of import substitution, the output of a consumption commodity becomes so great that normal domestic absorption is exceeded, we shall say that domestic absorption of this commodity is being liberalized.

A similar result may occur in an export industry. Output may increase much more rapidly than exports with the result that normal domestic absorption is exceeded. This again would mean, for a consumption good, liberalization of domestic consumption[2].

Let us put this more precisely by using an accounting relationship: change in production (X) plus change in import (M) of any commodity always equals change in domestic absorption (A) plus change in exports (E)

$$X + M = A + E \quad \ldots\ldots(1)$$

Change in domestic absorption is the sum of the changes in normal absorption (A_n) and liberalized absorption (A_l)

$$A = A_n + A_l \quad \ldots\ldots(2)$$

Substituting (2) into (1) and making some rearrangements, we get

$$X = (A_n - M) + A_l + E \quad \ldots\ldots(3)$$

The first term of the right-hand side of Equation (3) shows the amount of import substitution, the second shows liberalization of domestic absorption, and the third shows export expansion. Thus defined, a change in the output of an import-competing industry will mean import substitution as long as it does not exceed

[2]For a consumption good, the terms consumption liberalization and absorption liberalization can be used interchangeably.

the change in normal domestic absorption less the change in import, Any increase in output leading to a level of absorption in excess of normal means liberalization of domestic absorption. The Jast statement holds also for an export industry.

The purpose of this study is to measure the amounts of import substitution, consumption liberalization and export expansion for a number of important consumption-goods industries and to see what this suggests about the impact of the pattern of industrial growth on aggregate savings and the development effort.

THE MEASUREMENT OF NORMAL ABSORPTION

As stated above, normal absorption has to be defined in relation to the growth target or, to be more precise, to the target marginal rate of saving. In this study, the four immediate pre-plan years (1951/52 to 1954/55) are taken as the base. Normal absorption for a commodity for each year of the first-five-year-plan period is then measured as follows:

Using the target rate of marginal saving proposed by the First Plan, we measure for each year the level to which aggregate consumption has to be constrained. Then, an expenditure elasticity of demand (based usually on Pakistan and Indian estimates obtained from cross-section data) is used to measure the level to which the consumption of a particular commodity has to be constrained.

It is possible to measure normal absorption in a number of other ways. For example, a second measure of normal absorption may be obtained on the assumption of a more heroic growth target. One can contemplate as a "practical maximum" a growth path that requires per capita aggregate consumption to remain unchanged. This would in turn mean that per capita consumption of individual commodities should remain unchanged[3].

According to this measure, per capita absorption of each commodity in each of the first-plan years would be the same as in the base period. It is obvious that normal absorption measured in this way would differ significantly from that measured in the former way only if per capita national income changes are significant. Since per capita income changed very little over the relevant period, it does not seem useful to obtain a second measure of normal absorption on the assumption of such a "practical maximum" growth target.

We are now in a position to define the *rales* of import substitution, consumption liberalization and export expansion on the basis of accounting identity (3) above. By dividing (3) by X, we have

\+ + - 1 - = = ' . . . . . <*>

3This ignores the effects of autonomous supply changes.

The first term of the left-hand side of Equation (4) is the rate of import substitution. This is the ratio of the change in normal absorption less the change in imports to the change in production. The second term (the ratio of the change in liberalized absorption to the change in production) is the rate of consumption liberalization. The third term (the ratio of the change in exports to the change in production) is the rate of export expansion.

The fact that the sum of the three rates equals one shows that together they account for the entire change in production.

Statistical Methodology

Comparable data on production, import, and export are available only for a few commodities. While production in general is shown in quantity terms, trade data are shown in values. The difficulty is a real one in view of the fact that import and export prices are available only for very few commodities. To express trade data in quantity terms, we use domestic wholesale prices (where import and export prices are not available)[4].

Normal absorption of a commodity for each of the first-plan years was measured with the four immediate pre-plan years as base. The First Plan had as its objectives a 15-per-cent increase in national income and a 20-per-cent marginal saving rate[5]. When the Planning Commission formulated its marginal saving target, it must have done so on the basis of expected gains in *per capita* income. It is very difficult to imagine that the Planning Commission would try to achieve a marginal saving rate higher than the average without any gain in per capita income. Thus, it is necessary to interpret the saving target of the First Plan in terms of gains in per capita (rather than total) national income.

According to the expectation of its authors, roughly half of the increase in national income during the First Plan was meant for sustaining the increased population at the pre-plan per capita income level (we call this part of increased national income $\triangle Y_1$). The other half was to provide an increase in per capita income (we call this part $\triangle Y_2$). Thus, if income increases by 100, we have:

$$\triangle Y = 100 = \triangle Y_1 + \triangle Y_2$$
$$\triangle Y_1 = \triangle Y_2 = 50$$

Increased saving ($\triangle S$) must be 20. But increased saving out of $\triangle Y_1$ can be no greater than that indicated by the base-period average saving ratio ($\triangle S_1 =$

[4]The details about these prices and their sources are stated in Appendix B.

[5]The first-plan saving target was to achieve a 7-per-cent average saving rate in 1959/60 as against 5 per cent in the immediate pre-plan year 1954/55, (*see* [6, p. 135]). But index of income was to increase from 100 in 1954/55 to 115 in 1959/60 (15-per-cent increase). Thus, the index of saving was to rise from 5 in 1954/55 to 8.05 in 1959/60. The change in the index of saving is, therefore, 3.05 percentage points while the change in national-income index is 15. The implied marginal saving rate is $\frac{\triangle S}{\triangle Y} = \frac{3.05}{15}$, or approximately 20 per cent.

0.05, A^i — 2,5). Hence, an additional 17.5 has to be saved out of AY2. This means a marginal saving rate out of the increase in per capita income of 35 per cent.

Such a saving target implies that consumption expenditure for each year of the first-plan period has to be constrained to a certain level. This constrained level of per capita consumption (which we call normal aggregate per capita consumption) is found by applying the following formula:

For $Y_t \wedge Y_o$, we have $C_t = C_o Y_o + 0.65 (Y_t - Y_o)$ ....(5a)

and for $Y_t < Y_o$, we have $C_t = C_o Y_t$ ...(5b)

where

Y = per capita income
C ~ per capita normal aggregate consumption
C_o — average consumption ratio in the base period (0.95)
0.65 — planned marginal consumption ratio out of increase in per capita income
t = current period
0 ~ base period

The above seems to be a plausible and realistic interpretation of the saving target of the First Plan. A different formula (5b) is used to measure normal consumption for the years in which per capita income decreases while formula (5a) is used for all other years. This is done just to recognize that a reduction in per capita income is not likely to reduce per capita consumption as much as is suggested by formula (5a). In such a situation, per capita consumption is more likely to be indicated by formula (5b).

Once per capita normal aggregate consumption is measured for each year, the next step is to estimate the normal absorption of an individual consumption good by applying the following formula;

$$\bar{C}_{it} = \bar{C}_{io} + (\bar{C}_t - \bar{C}_o) \left(\frac{\bar{C}_{io}}{\bar{C}_o}\right) e_i \qquad (6)$$

where Q — per capita normal absorption of the Mh good, and
ej — expenditure elasticity of demand for the /-th good.

Total normal absorption of i in the period t(A_{it}) is found by multiplying C_{it} by the population in period t,

Thus, normal absorption of a commodity is determined by two factors. The first is the aggregate consumption constraint within which consumers must operate in order to achieve the planned saying target. The second factor is

consumer preference as to the distribution of consumption expenditure among different commodities (represented by the expenditure elasticities) within the overall consumption constraint.

Some differences exist between aggregate normal consumption measured from the Central Statistical Office (CSO) national-income estimates and that measured from the Planning Commission estimates of GNP[6]. The latter estimates are higher than the former mainly for two reasons: *a*) Planning Commission estimates, unlike CSO estimates, are not adjusted for changes in terms of trade; *b*) Planning Commission estimates are in gross terms, while depreciation is subtracted from gross capital formation in CSO estimates. Since the second factor affects the estimates of all years more or less uniformly, it is no great cause for concern. The first factor has, however, been changing over time — during the pre-plan years (base period in our analysis), its effect was positive while in the first-plan period it was negative and large. Thus, the exclusion of this factor in the Planning Commission estimates results in a higher growth rate than that shown by the CSO estimates. Actually, by the end of the first-plan period, the CSO estimates indicate a decline in per capita income from the base period, while the Planning Commission estimates indicate a slight increase.

Although the Planning Commission estimate is superior from the standpoint of present-day methodology of national accounts, the CSO estimate (with its correction for terms-of-trade change) is perhaps a better measure of welfare and capacity to save. We have used the CSO estimates as our basic data. However, we have also estimated the rates of import substitution, consumption liberalization and export expansion on the basis of Planning Commission estimates of GNP for the terminal year of our period of analysis (1959/60).

EMPIRICAL FINDINGS

The rates of import substitution, consumption liberalization and export expansion were measured for four import-competing industries (cotton cloth, sugar, cigarettes, and paper). We selected these industries because they produce comparatively homogeneous consumption goods, the output of which has increased very rapidly over the period studied, and because the relevant data are relatively easily available. In addition, an export industry (tea) was studied in order to view the problem of consumption liberalization in a different context.

Cotton Cloth

Cotton cloth is by far the most important import-competing industry of Pakistan. During the period under consideration (1951/52 to 1959/60), there was a four-fold increase in its output. While in the beginning of this period

[6]Both CSO and Planning Commission estimates are in constant (average 1949/50 through 1952/53) prices. Sources of these data are mentioned in Appendix B.

nearly 70 per cent of domestically absorbed cotton cloth was imported, in the later years Pakistan emerged as a net exporter of this commodity.

Expenditure elasticity for cloth as a whole was found to be about 0.90 for rural West Pakistan on the basis of a subsample drawn from the National Sample Survey?. While elasticity is likely to be higher in urban areas, the elasticity for *cotton* cloth is likely to be lower than that for cloth as a whole. Elasticities measured for cotton on the basis of Indian National Sample Survey are somewhat lower. We decided to use an elasticity of 0.90 in calculating normal absorption of cotton cloth, recognizing that this is probably a liberal estimate.

Calculation of normal absorption by use of formula (6) above resulted in values far smaller than actual absorption for all of the years. Consequently, the measured rate of consumption liberalization was very high. By the end of the first-plan period, 46 per cent of the increased cotton-cloth production (over the base period) represented consumption liberalization and 44 per cent represented import substitution (Table I). The use of Planning Commission estimates of GNP changes the results only very slightly, The rate of consumption liberalization between the base period and the terminal year (1959/60), in this case, is somewhat lower (42 per cent of the increased production) and the rate of import substitution is correspondingly higher (48 per cent).

TABLE I

COTTON CLOTH: RATES OF IMPORT SUBSTITUTION, CONSUMPTION LIBERALIZATION AND EXPORT EXPANSION, 1955/5&-1959/60

(Base period=1951J52—1954/55)

Period	Import substitution		Consumption liberalization		Export expansion
	CSO national incom e	Planning Commission GNP	CSO national income	Planning Commission GNP	
1955/56	0.2044		0.7854	·—	0.0102
1956/57	0.4773		0.4652	_	0.0575
1957/58	0.4691		0.5190	_	0.0119
1958/59	0.4099	_	0.5674		0.0227
1959/60	0.4356	0.4787	0.4632	0.420	0.1012

·The sources of this and at) other measures of expenditure elasticity ace mentioned in Appendix B.

Only 10 per cent of the increased production represents export expansion of cotton cloth between the base and terminal periods.

Sugar

Sugar is another important import-competing consumption-goods industry. During the period under review, its output more than doubled and imports declined from about 20 per cent of total absorption during early 1950's to almost nothing in 1959/60.

Expenditure elasticity for sugar was found to be about 1.60 on the basis of a subsample drawn from the National Sample Survey (rural West Pakistan). This seems too high when we compare it with the elasticities found for India. Urban and rural elasticities found on the basis of Indian National Sample Survey are 1.08 and 0.93, respectively. The estimates used by Coale and Hoover to project food requirements for India also suggest a smaller elasticity.

While, for West Pakistan, elasticity for sugar was found to be very high, that for gur[8] and sugar together was found to be considerably lower — about 1.06. The high expenditure elasticity for sugar is probably due to the fact that as income goes up a process of substitution of sugar for gur takes place. This substitution itself is clearly undesirable from the standpoint of maximizing saving and conserving foreign exchange.

We nevertheless used both the expenditure elasticities: measure A is based on the lower elasticity (1.06) and measure B is based on the higher elasticity (1.60). The use of either elasticity gives very high rates of consumption liberalization for all the years. Before 1958/59, the rates of import substitution were negative. This is because in all these years the increases in imports exceeded the increases in normal absorption. By the year 1959/60, the rate of consumption liberalization was the lowest of all years but still very high in an absolute sense. By this year, 49 and 51 per cent of increased output represents consumption liberalization according to measures A and B, respectively. The corresponding rates of import substitution are 47 and 45 per cent. The use of Planning Commission estimates of GNP gives somewhat smaller rates of consumption liberalization (41 per cent according to measure A and 40 per cent according to measure B) and correspondingly higher rates of import substitution (54 per cent and 56 per cent) for the year 1959/60. Export expansion was less important, the rate being less than 5 per cent.

Cigarettes

Cigarettes represent a consumption good which is supplied almost entirely by domestic production. Whatever negligible amount was imported during

[8]Gur is a kind of raw sugar, a close substitute of sugar and probably an inferior good.

TABLE II

SUGAR: RATES OF IMPORT SUBSTITUTION, CONSUMPTION LIBERALIZATION AND EXPORT EXPANSION, 1955/56—1959/60

(*Base period = 1952/53—1954/55*)

Period	Import substitution				Consumption liberalization				Export expansion
	CSO national income		Planning Commission GNP		CSO national income		Planning Commission GNP		
	Measure A	Measure B	Measure A	Measure B	Measure A	Measure B	Measure A	Measure B	
1955/56	—0.8776	—0.9689	—	—	1.8777	1.9689	—	—	—
1956/57	—0.0045	0.0002	—	—	1.0045	0.9998	—	—	
1957/58	—0.1381	—0.1461	—	—	1.1381	1.1461	—	—	
1958/59	0.1411	0.1150	—	—	0.8541	0.8802	—	—	0.0048
1959/60	0.4657	0.4456	0.5397	0.5573	0.4871	0.5073	0.4132	0.3956	0.0471

(he early 1950's has now almost completely been replaced by domestic production. Domestic production over the period under consideration increased nearly four times resulting in large increases in total and per capita domestic absorption.

No estimate of expenditure elasticity based on Pakistan and Indian data is available for cigarettes. We have expenditure elasticities for tobacco, however, (0.77 in urban and 0.88 in rural areas) based on the Indian National Sample Survey. Since the elasticity for cigarettes is likely to be higher than for tobacco, we used an elasticity of one which is considerably higher than both urban and rural elasticities for tobacco[9].

TABLE III

CIGARETTES: RATES OF IMPORT SUBSTITUTION, CONSUMPTION LIBERALIZATION AND EXPORT EXPANSION, 1955/56—1959/60

(Base period = 1951/52—1954155)

Period	Import substitution		Consumption liberalization		Export expansion
	CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP	
1955/56	0.0705		0.9295		
1956/57	0.1542		0.8458		
1957/58	0.1283		0.8717		
1958/59	0.0787		0.9213		
1959/60	0.0933	0.1254	0.9067	0.8746	

As is shown in Table III, most of the increased output represents consumption liberalization (on the average 90 per cent for every year). Consequently, only about 10 per cent of the increased output represents import substitution.

The use of the Planning Commission estimates to calculate these rates for the terminal year (1959/60) changes the results only very slightly. The rates of consumption liberalization and import substitution, thus measured, are 87 per cent and 13 per cent, respectively for 1959/60 (as against 91 per cent and 9 per cent based on the CSO estimates of national income).

[9]This measure is quite arbitrary, and elasticity of cigarettes may actually be still higher in view of the fact that here too a process of substitution of cigarettes for *bidis* probably takes place as income rises. However, we do not have any quantitative knowledge about this.

Writing and Printing Paper

Domestic production of paper started early in the 1950's. Imports, however, have not been replaced significantly because domestic absorption has been increasing rather rapidly.

The problem of measurement is complicated by the fact that no estimate of expenditure elasticity for paper is available for Pakistan or India. Expenditure elasticity for education was found to be 1.6 and 1.8, respectively for urban and rural India, on the basis of National Sample Survey. We assumed the elasticity for paper to be 1.8 on the assumption that absorption of paper for writing and printing purposes may vary directly with the rate of expansion of education.

As is shown in Table IV (except in the year 1958/59), consumption liberalization has been very great and correspondingly a very small percentage of increased output represents import substitution. For the terminal year (1959/60), the rates of import substitution (based both on CSO and Planning Commission estimates of national income) are negative — the increase in imports in that year exceeded the increase in normal absorption (measured on the basis of either estimate of national income). Correspondingly, consumption liberalization represents more than 100 per cent of the increased production for that year (128 per cent on the basis of CSO national income and 117 per cent on the basis of Planning Commission GNP).

TABLE IV

PAPER: RATES OF IMPORT SUBSTITUTION, CONSUMPTION LIBERALIZATION AND EXPORT EXPANSION, 1955/56—1959/60

(Base period — 1951152—1954155)

Period	Import substitution		Consumption liberalization		Export expansion
	CSO national income	Planning Commission GNP	cso national income	Planning Commission GNP	
1955/56	**0.0725**		0.9275 .		
1956/57	**0.1838**		0.8162		
1957/58	**0.1078**		0.8922		
1958/59	**0.4272**		0.5728		
1959/60	**0.2806**	**0.1685**	**1.2806**	**1.1685**	

Tea

The case of tea presents altogether a different story. Tea is an export item rather than an import substitute. Over the 1950's, its output increased very little, the annual growth rate being just below one per cent. Domestic absorption nevertheless increased very rapidly. As a result (since production was more or less stagnant) the volume of exports declined sharply. Average annual export during the first-plan period amounted to only about half of that during the pre-plan years.

No Pakistan or Indian estimate of expenditure elasticity for tea is available. In calculating normal absorption, we used for tea the expenditure elasticity for gur and sugar (1.06). Since tea and these goods are to a large extent complementary in use, their expenditure elasticities are unlikely to be vastly different.

TABLE V

TEA: RATES OF IMPORT SUBSTITUTION, CONSUMPTION LIBERALISATION AND EXPORT EXPANSION, 1955/56—1959/60

(Base period=1951152—1954155)

Period	Import substitution		Consumption liberalization		Export expansion
	CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP	
1955/56	9.1321	_	234.2075	—	—242.3396
1956/57	1.1191	—	2.6135	_	—2.7326
1958/59	2.0262	—	12.7813		—13.8074
1959/60	1.0435	1.4080	3.2190	2.8546	—3.2626

Note: **The rates for 1957/58 are not shown. Since the change in production for that year was negative, the measured rates do not have their normal meaning.**

The resulting estimates (Table V) show very high rates of consumption liberalization for all the years. Since production remained more or less stagnant, this required a corresponding contraction of exports. Thus, the rate of export expansion is shown as negative and large in absolute value. The rates for the terminal year have again been calculated on the basis of both CSO and Planning Commission estimates of national income. As can be seen from Table V, the two measures differ only slightly.

SUMMARY AND CONCLUSIONS

If the expansion of domestic production of a commodity aims only at import substitution, such expansion need be no greater than the increase in normal absorption less the change in imports. If domestic production expands beyond this level (without a corresponding increase in exports) domestic consumption can be said to have been liberalized. Likewise, in the case of an export good, consumption liberalization occurs when domestic production expands beyond the increase in normal absorption plus the change in exports (without a corresponding decrease in imports).

In either case, there is a diversion of resources away from the output of investment goods, exports or other import substitutes, with a corresponding shortfall of domestic saving. Thus, the ability of the economy to increase investment and the rate of growth or to reduce its dependence on foreign finance is to that extent retarded.

The findings of the present study reveal very substantial liberalization of domestic consumption for the five commodities studied. Moreover, from these cases, we can distinguish several types of interrelationships among production, imports and exports that can be associated with consumption liberalization.

Cotton cloth and sugar represent, perhaps, the classic case, with increased production permitting an evolution from dependence on imports to modest export surplus. The fact that domestic absorption rose abnormally, however, means that the export surplus was less than it would otherwise have been.

In the case of cigarettes, imports and exports were negligible or nil throughout the period studied. Some import substitution occurred because normal absorption would have required rising imports in the absence of any increase in domestic production. But domestic production increased far beyond this requirement to permit a very great liberalization of consumption.

Imports of paper actually increased over the entire period by more than the rise in normal absorption, *i.e.,* import substitution was negative. Since the rise in domestic production just matched the rise in normal absorption, consumption liberalization was just equal to the rise in imports.

Finally, in the case of tea, imports were negligible and the rise in domestic production was not very great. Accordingly, consumption liberalization was roughly matched by the decline of exports.

The fact that actual consumption of each of these commodities rose faster than the stipulated normal rate needs explanation. Our estimate of normal absorption is based on what we consider to be normal consumer behaviour (given the planned consumption constraints, population growth, per capita

income change and income elasticities reflecting consumer preferences). Why did actual consumer behaviour greatly deviate from this norm?

The high degree of protection that precedes the process of import substitution usually allows (probably induces) an excessive concentration of investment in the protected industries. Once the capacity is created (export possibilities being nonexistent or unexplored) the tendency is to utilize the capacity by inducing domestic consumption through sales promotion, as well as pressures to keep taxes and other constraints on the consumption of these goods at a minimum.

Moreover, an automatic "decontrol" of consumption takes place as the process of import substitution goes on. In an economy where the only effective control of consumption consists of import licensing, the replacement of imports by domestic production gradually renders such consumption controls ineffective. Thus, domestic absorption of the import-substituting goods is likely to grow at a faster rate than for other goods.

Part of the mechanism producing this result might be the removal of rationing or other direct controls on consumption of the import substitutes. In the absence of direct controls, changes in relative prices would serve a similar purpose.

Consumption of those goods which are not produced domestically (or whose production expands slowly) would continue to be controlled by quantitative import restrictions. The result would be relatively high prices which ration the consumption of these goods. In the protected import-substituting industries, however, output expands much more rapidly (for reasons discussed above) and as a result prices would decline relatively, inducing greater consumption.

TABLE VI

PRICE MOVEMENTS, 1955/56- 1959/60

(1951152-1954,155 —100)

	General price index	Cotton cloth	Sugar	Cigarettes	Paper	
1955/56	97.30	82.38	91.44	99.44	96.12	139.91
1956/57	126.83	88.21	88.87	107.75	96.12	125.44
1957/58	122,75	97.12	105.51	86.98	97.25	132.89
1958/59	127.16	97.44	122.86	82,11	94.36	140.35
1959/60	134,21	119.86	114.87	80.84	97.52	168.86

Source: 14J,

The case of the import substitutes considered in this paper closely approximates the above situation. The production of these four commodities (cotton cloth, sugar, cigarettes and paper) increased much more rapidly than national income and, in the aggregate, their growth rate exceeded that of industrial production as well. Moreover, domestic absorption of these commodities increased at a rate so far in excess of the rate of increase of aggregate consumption that no conceivable set of expenditure elasticities could explain the divergence. Correspondingly, as is shown in Table VI, the prices of these four commodities increased at a slower rate than that of the general price level.

In the case of tea (which is an export good and not an import substitute), liberalization was made possible by quantitative restrictions on the volume of exports.

Finally, the divergence between actual and normal absorption may be explained in part by the fact that our estimate of the latter does not take into account the possible effects of shifts in the distribution of population and income as, for example, the shift in favour of the urban sector at the expense of the rural. The fact that in the course of economic development this kind of structural chango is likely to create upward pressures on the consumption function, however, only emphasizes more strongly the need for curbing the growth of urban demand for import substitutes.

The question may be asked whether consumption liberalization of the goods considered above meant entirely a substitution of these products for others which became relatively dearer, or, at least partly, an upward shift in the consumption function. If it was only a substitution process arising out of autonomous supply changes then it should be regarded as simply a distortion of the pattern of consumption with no effect on aggregate saving. It might be argued that since per capita income change over the period was insignificant (slight decline according to CSO and slight increase according to the Planning Commission) the whole process of consumption liberalization should be viewed in this light.

Without claiming to disprove such a contention, two important considerations must be raised against it. While it is true that aggregate consumption per capita could not increase because there was no gain in per capita income, this is the *ex post* re.su! 1. But what is crucial for the growth effort is instead the *ex ante* propensities to save and consume. One could equally well argue that the stagnation in per capita income itself was due to a high propensity to consume in the first instance. And it is quite plausible that the high propensity to consume was at least partly due to the emphasis on import substitution with its consequent consumption liberalization.

Moreover, a process of pure substitution would presumably require the tightening of constraints on the consumption of other goods *(via* taxes or stricter

import licensing) as constraints on the consumption of import substitutes diminished with increased domestic production. Since there is no evidence of this, the presumption is that the liberalization of consumption of import substitutes meant a liberalization of consumption in general W.

JOFor a comprehensive analysis of the effects of import-substitution policy on growth, ***see*** [8],

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Appendix A

TABLE A-1

COTTON CLOTH

Year	Production	Import	Export	Domestic absorption	Normal absorption		Liberalized absorption	
					CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP
	(..			.(in thousand vnrdv\				1
Average Annual								
1951/52—1954/55	**261,733**	**107,263**	**501**	**368,495**	**368,495**	**368,495**	–	„
1955/56	**482,867**	**69,944**	**2,752**	**550.059**	**367,381**		**173,678**	—_
1956/57	*521,181*	**13,488**	**15,464**	**519,805**	**398,841**		**120,964**	
1957/58	**555,755**	**3,511**	**3,987**	**555,279**	**402,671**		**] 52,608**	„
1958/59	**598.050**	**1,648**	**8,146**	**591,552**	**400,722**		**190,830**	
1959/60	**607,235**	**4,271**	**35,476**	**576.03G**	**415,998**	**430,900**	**160,030**	**145,130**

TABLE A-2

SUGAR

Year	production	Import	Export	Domestic absorption	Normal absorption				Liberalized absorption	
					CSO national income		Planning Commission GNP		CSO national income	
					Measure A	Measure B	Measure A	Measure B	Measure A	Measure B
	(									)
Average annual										
1952/53—1954/55	**80,303**	**19,148**	_	**99,451**	**99,451**	**99,451**	**99,451**	**99,451**	_	_
1955/56	**103,576**	**39,598**	_	**143,174**	**99,476**	**97,352**	_	_	**43,698**	**45,822**
1956/57	**107,799**	**25,938**		**133,737**	**106,117**	**106,246**	_	_	**27,620**	**27,491**
1957/58	**157,352**	**37,247**		**194,599**	**106,911**	**106,295**			**87,688**	**88,304**
1958/59	**169,094**	**13,060**	**422**	**181,732**	**105,892**	**103,574**	_	_	**75,840**	**78,158**
1959/60	**144,576**	**13**	**3,028**	**141,561**	**110,251**	**108,957**	**108,004**	**116,133**	**31,310**	**32,604**

Liberalized absorption (Planning Commission GNP) for 1959/60:

Measure A: 26.557

Measure B: 25,428

TABLE A-3

CIGARETTES

Year	Production	Import	Domestic absorption	Normal absorption		Liberalized absorption	
				CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP
			. (in million cigarettes).				
Average 1951/52—1954/55	3,860	33	3,893	3,893	3,893		
1955/56	5,038	1	5,039	3,944		1,095	
1956/57	5,903	21	5,924	4,196		1.728	
1957/58	6,963		6,963	4,258		2,705	
1958/59	8,142	1	8,143	4,198		3,945	
1959/60	9,275	1	9,276	4,366	4,540	4,910	4,736

TABLE A-4

PAPER

Year	Production	Import	Domestic absorption	Normal domestic absorption		Liberalized absorption	
				CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP
				(in *Tons*)			
Average 1951/52—1954/55	6,363	9,934	16,297	J 6,297	16,297	—	
1955/56	21,590	8,467	30,057	15,934	. —	14,123	—
1956/57	24,398	7,863	32,261	17,541	—	14,720	—
1957/58	23,752	9,265	33,017	17.503	—	15,514	—
1958/59	19,112	5.142	24,254	16,952	—	7,302	—
1959/60	17,813	14,753	32,566	17,903	19,187	14,663	13,379

Year	Production	Import
	(	
Average 1951/52—1954/55	52,576	605
1955/56	52,629	450
1956/57	54,734	276
1957/58	44,500	271
1958/59	53,760	181
1959/60	56,000	233

TABLE A-5

TEA

	Normal absorption			Liberalized absorption	
	Actual absorption	CSO national income	Planning Commission GNP	CSO national income	Planning Commission GNP
	. *(in thousand pounds)* •				
26,927	26,254	26,254	26,254	_	_
34,083	38,996	26,583	_	12,413	_
21,030	33,980	28,340	_	5,640	_
8,357	36,414	28,559	_	7,855	_
10,579	43,362	28,229	_	15,133	_
15,756	40,477	29,455	30,703	11,022	9,774

Appendix B

Per Capita Normal Aggregate Consumption Measured **from C.S.O. National Income**

Table B-l shows the calculation of per capita normal aggregate consumption on the basis of CSO national income.

TABLE B-l

Year	Constant price national income	Population obtained by interpolation	Constant price per capita income (Y)	Constant price per capita national consumption (c)
	(1)	(2)	(3)	(4)
1951/52	18,522	77,463	239.11	
1952/53	18,761	79,121	237.12	
1953/54	19,727	80,814	244.10	
1954/55	20,064	82,543	243.07	
1955/56	19,586	84,309	232.31	220.69
1956/57	20,882	86,113	242.50	
1957/58	21,011	87,956	238.88	226.94
1958/59	20,850	89,838	232.08	220.48
1959/60	21,683	91,761	236.30	224.49

Note: National income in million rupees; population in thousands; per capita income and per capita national consumption in rupees.

The method of calculation is as follows:

Column (1) is taken from [3, p. 2261. These are in constant (1949-53) prices.

Column (2) is calculated on the basis of annual population growth rate of 2.14 between the years 1951/52 and 1961/62.

Col. (3) = Col. (1) -r Col. (2).

Column (4) is obtained by using the following formula: where

Yt > Yo, **we use** Ct = CoYo + **0.65** (Yt — Y₀) **and where**
Yt < Yo, **we usect** = CoYt- **For explanation and meaning of the symbols,** ***see*** **Statistical Methodology on pages 126-128.**

Per Capita Normal Aggregate Consumption (for 1959/60) Measured from Planning Commission GNP

Using our population estimates and the Planning Commission's GNP estimates (taken from [6a, p. 30]), we have per capita income in constant (1949-53) pnees;

1954/55	**Rs. 250.41**
1959/60	**Rs. 255.45**

Such estimates for the other three base years (1951/52 through 1953/54) are not available. We, therefore, estimate the annual average per capita income during the base period (1951/52 through 1954/55) as follows:

According to the CSO estimates, annual average per capita income during the base period is 0,9909 of that in 1954/55. Assuming that the same ratio holds for the Planning Commission estimates, we have base-period per capita income (annual average) according to the Planning Commission estimates as: 0.9909 of 250.41 = Rs. 248.13.

Per capita normal aggregate consumption for the year 1959/60 is then found by applying the formula used in calculating Column (4) of supporting Table B-l.

Sources oi' Data

/) Production figures are taken from the sources noted below against the names of the commodities:

Cotton cloth: [9j.
Sugar: [91.
Cigarettes: [9],
Tea: [5, for 1952/53 through 1957/58; 7, for 1951/52; 9, October 1960, for 1958-60],

Paper: [4 ; 9].

ii) **Import data are taken from the following sources:**

Cotton cloth and tea: [3].

Sugar, cigarettes, and paper: Unpublished C.S.O. data

All export data are taken from [3].

iii) All prices are taken from [4].

iv) Expenditure elasticities for Pakistan are those calculated by Dr. Christoph Beringer, then Research Advisor at the Pakistan Institute of Development Economics, on the basis of a subsample drawn from the National Sample Survey (West Pakistan, Rural).

Expenditure elasticities for India are taken from [10 ; 11],

Part 2

Efficiency of Import Substitution

The Determinants of the Domestic Prices of imports

Mati Lai Pal

This chapter first appeared as an article in the Winter-1964 issue of *The Pakistan Development Review* and is the result of the researches carried out by the author when he was a Staff Economist at the Pakistan Institute of Development Economics.

The author is deeply indebted to Dr. Stephen R, Lewis, Jr., then Research Advisor at the Institute, for guidance at each stage of the study and for comments on earlier drafts. Useful suggestions and comments had come from Dr. Philip S. Thomas, Dr. Bruce Glassburner, Dr. Eric Gustafson and Dr. Ronald Soligo, then Senior Research Advisor and Research Advisors, respectively. He further wishes to thank his colleagues at the Institute for opportunities of discussing the work with them. The responsibility for any errors, inadequacies, or opinions expressed herein rests with the author alone.

Mr. Pal is at present a Research Economist at the Pakistan Institute of Development Economics.

The Determinants of the Domestic Prices of Imports

Mati Lai Pal

INTRODUCTION

Imports play a key role in the economy of Pakistan, especially since they provide a large share of the nation's industrial raw materials and most of its capital goods. Scarce foreign exchange is rationed and allocated among different types of commodities thro.ugh an elaborate licensing system. To cope with the needs of the economy, there has been liberalization of imports in recent times. Proposals for further liberalization and alternative proposals for rationing foreign exchange through an import surcharge system or an exchange auctioning system have also been put forward. But, in the absence of empirical evidence regarding scarcity value of foreign exchange and the domestic prices of imports, the impact of these changes on the import sector and therefrom on the economy could not be definitely estimated. Different assumptions have been made regarding these magnitudes resulting in very different conclusions about the impact of various policies. A study of the facts is necessary under these circumstances, and so we have embarked on an empirical study regarding the determinants of the domestic prices of imports,

The import sector in Pakistan is' subjcc to many government policies. In addition to the direct controls regarding import licensing and the exchange rate, a detailed tariff and sales-tax structure, along with numerous minor regulations, is operative in this sector. Some of the effects of this elaborate system of government policies are reflected in the level and structure of prices of imported

goods in local markets. In the absence of import restriction and under perfectly competitive market conditions, the domestic price of an imported commodity would equal the *c.i.f.* cost *plus* import duty and sales tax *plus* "normal" competitive markup[1]. But the restriction of imports through the licensing system causes excess demand at such a price, and the gap between actual internal price and landed cost is widened. This gap constitutes a licence-created profit for licence-holders. The basic hypothesis under investigation in this paper is that when there is direct control of supply, the main determinant of the local prices of imports at the margin is the import-control policy, not the landed costs[2].

In Section II, we shall give a brief summary of the present import-control policy. Section III gives the purpose of the study along with a theoretical discussion. Empirical findings have been presented in Section IV. The problems of allocation of resources and distribution of income *vis-a-vis* import-control policies are discussed in Section V. A summary of the study and a few suggestions about useful investigation are given in Section VI.

II. SUMMARY OF THE LICENSING SYSTEMS

Due to the excess demand for foreign exchange, at the existing exchange rate, the government controls almost all imports into Pakistan. A high-level Foreign Exchange Committee prepares an annual Foreign Exchange Budget on the basis of expected earnings, aid receipts, and the level of reserves. After the adjustment of the amount of foreign exchange automatically designated for private imports under the Export Bonus Scheme, the Committee determines the division of foreign-exchange expenditure between private and public imports. The licensing authorities then decide on the commodities to be imported, determine the ceilings for the value of imports of individual items, groups of items, and industries, and allocate the amount earmarked for each item to individual importers. Licences are required for almost all private imports, the major exception being commodities included on the "Free List"[4]. Import licences are issued on a *c&f-v*alue basis to commercial importers and industrial users and may be used in any country of the world except for items for which specific commodity licences are issued in accordance with trade, aid, or loan agreements.

iThe importers have to pay a few other minor charges, namely, clearance charges, import licence fee, banking charges, wharfage cost, *etc.* We shall use the term 'Landed Costs' for the total of all the costs and charges paid by the importers. Insurance cost is a very small part of the *c.i.f.* cost and so the difference between *c & f* and *c.i.f.* costs is not significant.

[Actually, of course, price is demand determined under conditions of fixed (controlled) supply. Here we are assuming demand to be excessive and given. Hence, price must be fixed unless there is a change in the controlled supply.

sFor this part of the paper, the author draws on [9] which contains a detailed discussion of the import-control policy in Pakistan, and on discussions with Dr. Philip S. Thomas.

4The "Free List" was considerably extended to fifty-one items in June 1964, but for the period in which the commodities considered in the current study were imported, only four items were under "Free List".

The present import policy has its origin in November 1952, in the days of depression in foreign-exchange earnings after the Korean boom. Before this system came into operation, private imports were, more or less, free under the Open General Licence (OGL) system (during the period July 1950 to November 1952) under which an importer could import any amount of the commodities under the "OGL XIII" list. With the imposition of the new system, the former Open General Licences were cancelled and each importer of that period was given, for each type of good that he imported, a monetary category the value of which was determined by the average imports during the five OGL shipping periods. A category is a standardized unit of account, the actual value of each licence for a shipping period being expressed as a percentage of the monetary value of the category. For one particular commodity, an importer gets only one category.

With the introduction of the new Open General Licence procedure in 1961, the scope of the category system became narrower. The new OGL applies to specific commodities and to specific groups of commercial importers and provides for issue of licences of specified amounts in each shipping period. Its purpose was to encourage new entrants to the import trade and to extend the value of licences issued in the commodities chosen. Uptil introduction of the "Free List", the new OGL was the principal sign of "liberal" import policy.

Other import procedures exist for certain groups of commodities and industries. Under the "Automatic" licensing procedure, importers of the specified commodities become entitled to another allocation in the same import period under the same licence when an earlier allocation has been utilized.

For industrial raw materials and spare parts, "regular industrial licences" are issued to the quota-holders enumerated by a survey of industrial units. The values licensed are determined on the basis of assessment certificates issued by Provincial Directorates of Industries, indicating the "requirements" of a quota-holder for raw materials and spare parts to operate on a single-shift basis. Licences for importing machinery for new industrial capacity in the country are based on the sanctions made by the Central Permissions Committee in the Ministry of Industries.

Import licences are also issued under the Export Bonus Scheme on the basis of import-bonus vouchers issued by the State Bank of Pakistan to exporters for a specified part of their foreign-exchange earnings. Import-bonus vouchers are issued for all exports except the exports of some raw material and food items. Imports allowable under bonus vouchers include a wide range of goods specified in the "bonus list" in the import policies. Vouchers are marketable and, due to the excess demand for import, command a high premium.

III. PURPOSE OF THE STUDY AND NATURE OF THE PROBLEM

The main purpose of our study is to find out the extent to which this elaborate licensing system influences the domestic prices of imports. The knowledge of the extent of the licence-created profit, the gap between domestic price and landed cost of an imported commodity, is extremely useful in this context. We should expect the existence of such profit in all commodities since demand is likely to be excessive relative to the controlled supply (otherwise controls are unnecessary and meaningless). The extent of profit, or the differential between landed cost and domestic market price, will vary from commodity to commodity depending on the stringency of licensing of various items. Thus, at the margin, it is the licence-controlled quantity, rather than the landed cost, which determines the domestic market price of imports.

The above hypothesis can be illustrated by the use of a simple supply-and-demand diagram, as shown in Figure 1. Assuming DD and SS to be the demand-and-supply schedules for imported goods in domestic markets, we can say that if there were no import restrictions and if competitive market conditions prevailed, amount OX would be imported and the prevailing price would be PX. (The supply curve is drawn horizontal since Pakistan's imports are too small to influence the world price.) But if OX_1 is the licensed amount of imports[5], then P_1X_1 will be the prevailing price and P_1L would be the licence-created profit per unit going to the licence-holders. The extent to which a rise in the price to the import licensee, either through an increase in *c.i.f.* price or an increase in duty, or both, can influence the price to the consumer[6], depends partly on the extent of this profit[7]. The price to the consumer can be raised only through a reduction in quantity supplied in the local market. But if a rise in the price to the supplying sector does not affect its "normal" profit[8], quantity supplied in the local market would not be reduced. The profit at the licensed supply may be high enough so that a rise in price to the import licensees (caused by a higher duty, for example) would be absorbed by the importer as a reduction in his profit margin or markup. If the rise in landed cost is not large enough to absorb all the "excess" profit or "abnormal" markup, the domestic market price is unlikely to change. Suppose a rise in the import duty, a sales tax, or an increased *c.i.f.* price raises the landed cost so that the supply schedule moves upward to S'S'. With restrictions, the effective supply curve is S'L'R and the

---

[5]The government quotas are, of course, value quotas. However, given foreign prices, value quotas become physical quotas to all intents and purposes. They are so treated in all the figure.

[6]"Consumer" here means both the ultimate consumer and the industrial user who buys his raw materials or equipment from the import licensees.

[7]This point has been raised in many recent discussions, of which [7] and [8] are the main ones.

[8]The concept of "normal" profit involves a conception of opportunity cost which presupposes the prevalence of competitive conditions. The supply price includes normal profit in our figure.

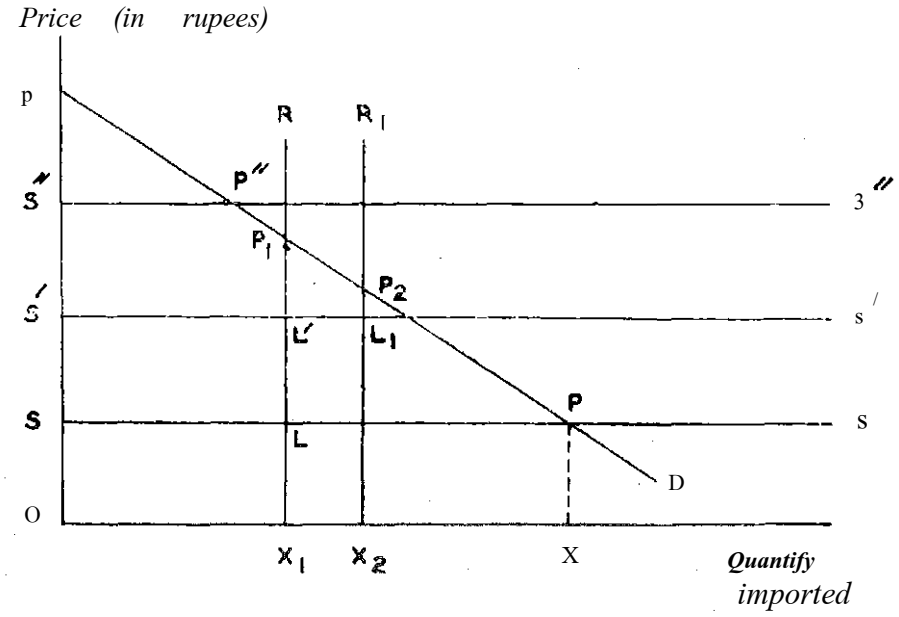

FIGURE ; i THE EFFECT OF IMPORT RESTRICTIONS

market-clearing price is still PiXj. The licence-holder still enjoys a profit margin to the extent of PjL'; the whole amount of the rise in the landed cost is paid out of the former profit of the licensee. But if the rise irt the landed cost rises sufficiently, the supply curve S"L/R will intersect the demand curve at some point P" which lies above P, and OS" will be the price with S"P" quantity sold. In this (probably extreme) case, the rise in the landed cost is big enough to more than eliminate the licence-created profit, hence the licensees will import less than is allotted to them by the government in the form of licences.

Thus, it is clear that If licence-created profit is large, changes in landed costs should not affect domestic market prices over a fairly wide range. Given domestic demand conditions, changes in domestic price are detei'mined by changes in quantity licensed, not by changes in landed costs over that range. The extent to which landed costs could increase without raising domestic prices is, therefore, related to the licence-created profit of importers or, roughly, the margin between landed costs and domestic market prices, at any point in time.

The effects of import liberalization measures, such as the new OGL, the automatic licensing, and the "Free List", can also be illustrated in Figure 1 as increases in the quantity of a commodity licensed in a particular period. It can also be seen that increased quantities licensed, even if combined with increased landed costs through regulatory duties, could result in lower domestic market prices, rf **the licensed amount increased from OXi to OX2 and duties were**

i-aised so that the price to the importer rose from SS to S'S', the new supply curve would become S'LiRi, and the domestic market price would fall from X1P1 (under "tight" licensing and lower duty) to X_2P_2 (under "liberal" licensing and higher duty), The result would also be a fall in licence-created profit per unit (or margin over landed cost) from PjL to P2Li.

The empirical study of the licence-created profit margin is extremely important, therefore, in order to analyse the effect of proposed changes in tax structure or import policy, or both, on the domestic prices of imported goods. The extent to which changes in duty or in licensed value of different commodities will affect the internal price structure and thereby influence the allocation of imports can be approximately determined, at least, when the markup is known. If for all important commodities under quantitative controls the profit margins are high, existing import duties cannot, and do not, influence relative prices of different imported goods and of imported goods *vis-a-vis* nonimported goods, and they have no allocative role[9]. If, however, there are items priced very close to landed cost, changes in tax rates on those commodities may affect the quantity imported, and, therefore, domestic market prices, The extent of licence-created profit or existing markups from landed costs to market price set a rough limit beyond which tax rates on imports will play an allocative role.

The above argument assumes that all users of imported goods purchase such goods from import licensees at the domestic market price. This group includes some industrial users. There is an important class of importers, however, who use the goods they are licensed to import. These are the industrial importers referred to in Section II, who receive licences to import capital goods, spare parts, and raw materials for their own use. Am anufacturer possessing import licences buys raw materials and equipment at lower prices and sells the resulting product at prices which fully reflect internal scarcities. "Much of his profit emerges from the spread between world prices and internal prices. His gain is not essentially different from that of the importing merchant who merely resells at high internal prices the same goods he has been licensed to purchase abroad at much lower world market prices" [3, Pp. 8-9]. Therefore, though an increase in tax rates would raise the cost to some privileged users of imported raw materials, they would be likely to absorb the increased taxes themselves in their manufacturing profits, since part of their manufacturing profit is due to possession of scarce import licences.

So far we have discussed the question of profit margin under "quasi-competitive conditions" t°. It is often argued that there is a considerable degree

'That the existence of a domestic industry does not alter the argument is shown in Appendix B. However, it is necessary to assume that import licensees are the ultimate users of imports, so that all users face one price—the domestic market price. The reason for this assumption is illustrated in the next paragraph.

l»The conditions of entry, numbers, and collusion have been assumed to be sucli that a "competitive" pricing situation would prevail if government restrictions were absent.

of monopoly in the licensing of some imported commodites and since there is no free entry into the import trade of category items, the category-holders of a commodity form a group of monopolistic competitors. Therefore, it is suggested that the profits earned in these commodities might be usual monopoly profits and, therefore, placing an item on the "OGL list" might improve the supply position through the introduction of more competition. Now, if the category-holders are monopolistic competitors they may earn greater "abnormal" profits than they would obtain with a "quasi-competitive" market structure.

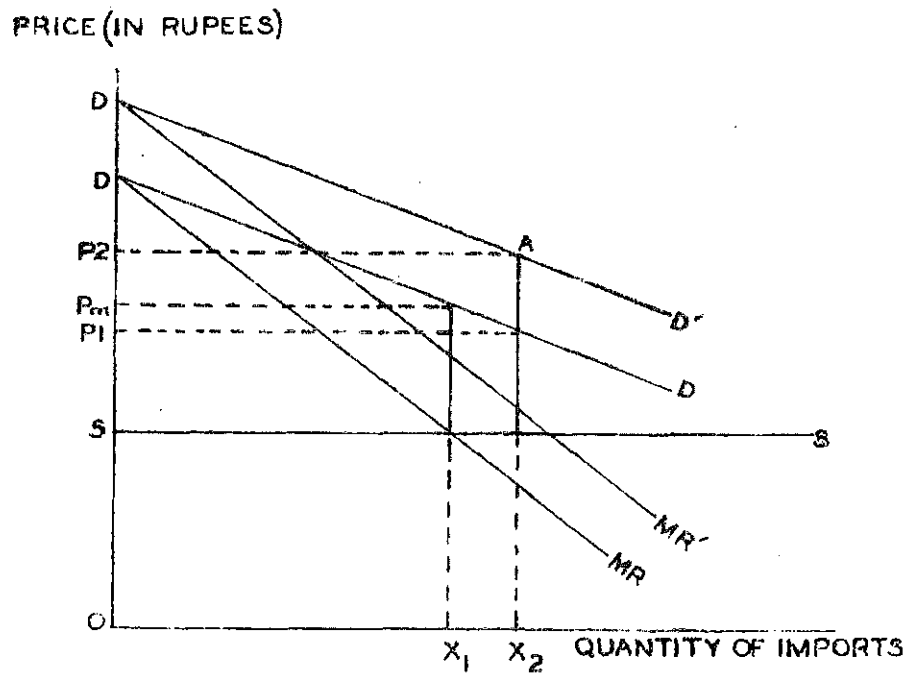

FIGURE: 2 THE EFFECT OF MONOPOLY ON IMPORT PRICES

They would supply the amount determined by the intersection of their marginal cost curves and the marginal revenue curves for the commodity. In Figure 2, the amount offered for sale by the monopolists will be OX_1 when the demand curve is DD. The government allocation of imports is the quantity OX_2. Since the monopoly-restricted supply falls short of the amount permitted by government allocation, there will be a monopoly profit of SP_m per unit, whereas under "quasi-competitive" conditions, the "licence-created" profit would be SP_1 per unit. However, if D'D' is the demand curve, OP_2 will be the optimum price of monopolist, and it is the "quasi-competitive" price at the same time. The implication of this analysis is that if quotas are not being fully used because of monopolistic restrictions, putting the commodity on the "OGL list" should

increase the competition and thereby reduce price somewhat. If all import allocations are utilized however, the domestic prices of imports will not be affected simply by entry of firms. The total profit would be shared by more, of course, but the price would remain the same. If an expansion of the value licensed accompanied the shifting of the commodity to the "OGL list", the supply position would be improved and prices should fall. However, the improvement would be entirely due to the increased foreign-exchange allocation, and increasing the number of importers, by itself, could not increase the supply and lower prices.

IV. EMPIRICAL FINDINGS

The empirical analysis of markups above landed cost is based on the findings from samples of "representative"[11] commodities in the three broad groups: consumption goods, raw materials, and capital goods. The domestic prices considered are those prevailing in Karachi during the period June-August 1964 and so the import conditions of these commodities are related to the January-June 1964 shipping period[12]. In this section, we first try to analyse the profit margins in these commodities during that period and then attempt to determine the effects of duties on domestic prices of imports.

As has been discussed in the preceding section, the price position may be different for commodities placed under different lists (category or OGL). Some of our samples include commodities imported under more than one list. For the consumption goods, the position is relatively clear. Most semi-essentials, luxury commodities, and consumer durables are imported by the category-holders. But in the case of raw materials, no definite division could be made. Here the imports are made by category-holders, by OGL importers, and directly by industrial users.

Average Markup on Imported Goods

In the consumption-goods group, the average of the profit margins over landed costs in twelve items is 61 per cent, *i.e.,* the "scarcity price" which the consumers have to pay for the imported consumption goods is 61 per cent higher than the landed cost. For most of the items that come under import-bonus vouchers, the profit margin is as low as 5 to 7 per cent since bonus-voucher costs wipe out the scarcity margins to a great extent. Yet the overall difference between landed cost "ex-bonus" and market price still approximates 60 per cent.

For raw materials, in our sample of twenty-five observations, the average profit over landed cost is 58 per cent. The wholesalers in raw materials earn

115'ee Appendix A for a detailed discussion of the samples.

iThere is usually a lag of two to four months between obtaining of licence and receiving the shipments.

licence-created profit to this extent. The manufacturers who do not have import licences have to purchase these raw materials from the wholesalers at the "scarcity price". The industrial users who get raw materials through industrial licences have lower cost of production than the former and they, therefore, can earn excess profits. As pointed out above, a part of industrial profits is profit from import licensing, not "real" profits.

Our sample for raw materials is composed of both the "category items" and "OGL items", so it is possible to determine whether or not the price situation is different for the items in the two lists. In our sample, the difference between the average profit margins for "category items" and "OGL items" is 5 percentage points. Since the standard error of the difference between the two means is 9.6 percentage points, the difference is not statistically significant, which means that the average profit rates may not be considered different for items imported under these two types of licence. Even though the "degree of competition" is supposed to be different, the profit margins do not vary significantly. It can be inferred that the licence-restricted supply falls short of the monopolistic maximum-profit quantity, and this supports the view that mere introduction of competition without increased foreign-exchange allocation does not improve J the domestic price situation.

The existence of some extreme observations in the sample for raw materials necessitated a clear inquiry about their particular supply-and-demand conditions. Some observations like those of Gum Arabic (8 per cent), *bicli* leaf (260 per cent), lead ingot (108 per cent), and pig iron (15 per cent) are conspicuous by their extreme values. Gum Arabic was on the "Automatic List" in the first shipping period of 1964. The Automatic List is supposed to bring a larger allocation of foreign exchange if it is "needed", which would generally bring the price of the item down. The lower profit margin might be due to the improvement in supply situation through foreign-exchange allocation. Pig iron was on the "Free List". The supply allocation may have been sufficient to cope with the demand at *c & f plus* duty-paid price. There have been some allegations coming from the small importers, regarding the items on the "Free List" that the big importers, in order to eliminate the small competitors, charge a lower price at the outset, and when the small importers are out of the market, they raise the prices. Pig iron might be such a case. Of course, it can only be ascertained, if at all, when prices in later periods are examined. *Bidi* leaf is a commodity that the licensing authority tries to license exactly on the basis of "requirements" of individual manufacturers. But the demand for tobacco manufacturers has raised the demand price jf raw materials well above the *c&f* and duty-paid price. Presumably, the domestic market in *bidi* leaves is small and exists only between *bidi* manufacturers in deficit and surplus raw materials positions. A relatively small "error" in foreign-exchange allocation can lead to a large internal price change.

For the capital goods, our sample was very small. For the sample of ten observations, the average profit margin on landed cost was 62 per cent. In order to raise the tempo of industrialization in the country, the rate of duty for these goods is kept low[13]. Low duties were supposed to give incentives for investment. But the high markup shows that there is excess demand for capital goods at prices equal to landed costs. While the duties are kept low to encourage imports of capital goods, they are deprived of this role by a licence-restricted supply. The low duties simply add to the profits of the licence-holders. If imports are to be increased, it can be done only through an increased foreign-exchange allocation.

One characteristic of some capital goods is that the importers' profit margins are lower for commodities imported from the United States than for the same commodities imported from other countries. This is additional evidence in support of the hypothesis that quantitative restrictions are more important than landed costs in determining (at the margin) domestic market prices. Because, goods from the United States and from other sources are comparable (easily substitutable), their prices in Pakistan's domestic markets are almost the same, while their *c & f* prices are quite different. Domestic price tends to be set (given domestic demand) by the total amount imported from all sources, not by the cost of the higher-priced US imports that dominate the supply side of the market. Prices to the import licensee are higher due to the higher landed cost of the US items. The profit over lowest landed cost is so high, however, that total quantity imported remaining the same, a rise in price to the importer is paid out of licensees' profits, and domestic market prices are not affected Industrial importers using aided imports from the United States pay higher prices than if they were free to use licences to import from other countries. To this extent, there is a reduction in the spread between the prices of domestic manufacturers and their total costs of production, or a reduction in profits.

After finding out the profit margin for different groups of commodities, we can give a crude measure of the extent of overvaluation of our currency, assuming that the imports were to be kept at their existing levelsi[4]. The average scarcity margin is around 60 per cent in all cases. If we subtract 10 to 15 per cent for "normal" markups *phis* costs of distribution, we get the extent of

13See [18].

i4if dollar loans were not tied to United States exports, of course, a given value loan would provide larger quantities of imports if they could be bought in cheaper markets. It is not clear, however, whether the situation of a tied loan should be compared with an untied loan of the same dollar value or with some other alternative, when assessing "the etTects of tied loan".

isOne should be careful in using this, however, since domestic prices for some commodities are from markets that only cover a part of total imports. *Bidi* leaf is an extreme example of such a commodity. If all Wrfi-leaf imports were by commercial licence-holders and if all industrial users bid for all of their supplies from commercial importers, a different price would rule than the (blackmarket) price given here (which covers only a small part of total imports). This is probably true in varying degrees for most commodities studied here.

licence-created profit, which is a crude measure of the overvaluation. It comes out as 45 to 50 per cent, which gives support to the prevalent view that Pakistan's currency is overvalued to the extent of 45 to 55 per cent. This implies an exchange rate of approximately Rs. 7.00 to $1.00.

The Relation of Duties to Prices of Imports

In order to test whether duties have any effect on domestic prices we used regression analysis. Our samples are composed of cross-sectional data, since the information is related to one point of time. Different commodities have different rates of duty, and we have computed a profit margin over *c & f* price for each commodity. When we fit regression equations relating rates of duty to margins over *c & f* prices, and want to use the coefficients to see whether duties have any effect on internal price, we make the assumption that the 'normal' percentage margin of a commodity with one rate of duty will be the same as that of the commodity with a different rate when the latter rate is imposed on the former commodity. That is, we assume that the difference between international and domestic prices of all commodities varies with rates of duty only. This is a rather unrealistic assumption. When analysing the results of the regression analysis, therefore, we should be careful in rejecting or accepting a hypothesis without reappraising the assumption.

Since the margin over landed cost is high, one would suppose that changes in duties (up to some limit) would be absorbed in this margin. The margin over landed cost is likely to change in the opposite direction from the changes in duties, if not by the same amount. The margin over *c & f* price expressed as a percentage of *c & f* price included both the margin over landed cost and the duty. Such a variable will remain constant, more or less, if the changes in the margin over landed costs and changes in duties cancel one another. To examine this hypothesis, we fitted regression equations for consumption goods, raw materials, and capital goods separately. The results are given below:

For consumption goods	$Y = 108 + .92X$	$r^2 = .48$
	(25) (.30)	N = 12
For raw materials	$Y = 77 + 1.09X$	$r^2 = .24$
	(16) (.39)	N = 25
For capital goods	$Y = 42 + 2.49X$	$r^2 = .44$
	(12) (1.01)	N = 10

where $Y = \dfrac{\text{domestic price} - c \,\&\, f \text{ price}}{c \,\&\, f \text{ price}}$

$X =$ total duty as a percentage of *c & f* price.

All the coefficients are significant at 95-per-cent level of confidence. The results do not support our hypothesis. The conclusion emerging from these results would be that the internal price might be affected by duties. However, because the profit margin over landed cost is so high, small changes in duties cannot absorb it and a change in supply is unlikely. If the importers try to reduce supply following a rise in duty they will have unused import quotas. But according to the information with the Office of the Chief Controller of Imports and Exports, a very small percentage of the quotas is not fully utilized, generally due to reason not related to duty structure.

The regression results may be explained by the fact that the higher the rate of duty, the tighter the licensing is likely to be. Though there is little overt coordination between the operation of the Central Board of Revenue and the Chief Controller of Imports and Exports, both these authorities are influenced by the criterion of "essentiality". The less essential a commodity is, the tighter is the licensing and the higher is the rate of duty. There may be at least an unconscious coordination between the licensed value and the rate of duty[16].

[16]There is some factual support for our conclusion. Mr. A. I. A. Islam compared the actual imports during the period 1953-59 with the expected amounts projected on the basis of the OGL XIII period imports in [5]. There he showed that for some of the commodities the actual imports under the licensing system have exceeded projected ones and for some other commodities they fell short of expected amounts. We ranked the commodities in order of "liberality" of licensing and examined the rate structure for these commodities. The ranking conforms to the ranking made on the basis of extent of duty. We show it in the following table:

Group of commodities	Percentage changes in the estimated values of imports from actual values	Average rate of duty
Machinery	+296.3	12.5
Oils	+275.2	44
Chemicals	+130.5	47
Rubber	+ 63.0	38
Vehicles	+ 60.8	53
Food	— 26.7	76
Soap	— 62.3	73
Textiles	— 81.9	150

Source: Col. (2) from [4]; Col. (3) from [13].

In addition, Radhu [18] has shown that the rate of duty varied by "essentiality" of the commodity imported, and found higher rates of import tax on luxury consumer goods; lower on consumer durables and on semi-luxuries and lower still on "essential" consumer goods. Duties on raw materials for consumption goods were higher than on raw materials for capital goods. If the licensing authority followed similar patterns of gauging the "essentiality" of imports, the regression results are explainable without having duties exercise their influence on private market decisions.

If the licensing becomes tighter for the commodities which have higher duties, the margin over landed cost remains constant, more or less, for all commodities. Consequently, the margin over *c & f* price varies with the duty. Therefore, we should not conclude that the duties can affect internal prices when we know that the margin over landed cost is large. The low values of r^2 in all the cases also support our contention. The duties explain less than 50 per cent of the variation in the margin over *c&f* price. Though the coefficient of X is significant, only a small part of the variation in Y is explained by X. In case of raw materials, the range of duties is not great but the variation of the markup is considerable, resulting in a very low r^2. The variation in markup is largely caused by the licensing system so that the effect of duties on the prices at the margin is very low.

V. A DIGRESSION ON METHODS AND objectives"

At least two separate aspects of the problem of import licensing should be distinguished when analysing the system, or when making use of the empirical results of surveys such as ours. One aspect is the effect of licensing on the efficiency of resource allocation; the second aspect is the effect on the distribution of income. A few observations are in order on each.

There are basically two possible ways to control prices of imports and quantities sold. The licensing system specifies the quantity which, given the demand conditions, determines the price. This is the way the system in Pakistan presently works. The alternative methods, such as an import surcharge, an auctioning system for foreign exchange, and devaluation, all with differential tariff systems, attempt to set the prices and allow the quantity imported of each commodity to be the quantity demanded at that price. Given adequate knowledge of demand and supply conditions, both methods can achieve the same composition of imports and of domestic relative prices.

Consider a hypothetical case in which the industrial licence-holder was not legally committed to use his imports, but might sell them. If a differential surcharge (or a general surcharge with differential rates of import duty) were imposed as a means to mop up all licence-created profit, relative prices would not be affected, and resource allocation would also remain unchanged. With the existing tariff structure, auctioning quotas of foreign exchange for particular commodities could also lead to the same result. To the extent that market-equilibrium prices do not equal social opportunity costs, there will be some misallocation of resources in all three eases If the surcharge is a general one imposed on top of the existing tariff structure, the relative prices and the relative quantities imported would be different from the previous alternative insofar as

"Discussions with Dr. Ronald Soligo and Mr. Abdul Ghafur of the Institute were helpful in developing the argument in this section.

there are differentials in the profit margins in different commodities under the current licensing and tariff system. A general auctioning system (or fluctuating exchange rate) with the existing tariff structure will also lead to a different set of relative prices. There is no guarantee, however, that these new sets of relative prices will be efficiency prices from the social point of view. Of course, value judgments will play an important role in evaluating all these cases, but the investigation of "efficient" resource allocation in general is beyond the scope of this paper.

Under an alternative system where sale of imports under industrial licences was illegal, if industrial licences were abolished, allocation of resources, among different industrial users may be different even if the quantities imported of every commodity remained the same. "The decisions of buyers based upon their willingness or unwillingness to pay the surcharge would be substituted for the decisions of government officials in determining the allocation of scarce foreign exchange among competing claimants" [3, p.7], Those "efficient" industrialists who previously could not obtain licences would now get the materials and would increase productivity per unit of imported goods. Again, insofar as the present licensing is based on incorrect calculations (from the social point of view) of optimal factor combinations, the alternative system would lead to more efficient allocation. The benefits to cottage industries, small- and medium-scale industries, which do not get industrial licences under the present system, are also apparent. Whether these industries willing to pay the highest price will invariably be those who would put goods to their most productive uses from the long-run social point of view depends on how closely private and social marginal valuations overlap. It is sometimes argued that "since these (small-scale industries) are generally labour-intensive, the small amount of capital equipment which they need would be very highly productive" [3, p.7J. It is possible, of course, that the large-scale entrepreneur would also prefer to adopt a labour-intensive technology. There is empirical evidence, however, that large-scale enterprises in Pakistan use relatively capital-intensive techniques. But this "inefficiency 'in the large' is caused by the overvaluation of labour relative to its shadow price for the industrial sector as a whole" [19, p.39]. It cannot be asserted with certainty that the licence-holders resort to "needlessly capital-intensive" technologies due to the low price of capital goods, however.

In any case, if we accept the overall distribution of imports among commodities, as it presently exists, the licensing system *in itself* misallocates resources only to the extent that industrial users obtain imports at two different sets of prices, depending on whether they are or are not import licensees. As pointed out above, there is no difference among alternative systems from the point of view of allocating scarce resources, unless one says that the licensing authorities are less efficient in their distribution of imports than are the tariff authorities in their implicit set of differential between *c & f* and domestic market prices of imports.

One should be careful to separate the effects on the distribution of income from the effects on the allocation of resources. The alternative to having excess, or above normal, profits accruing to the private sector's import licensees is to have the government appropriate them through an import surcharge, or regulatory duty, or to transfer them to exporters by general or selective devaluation, or a combination of both methods. The superiority of the alternative methods on grounds of income distribution depends on judgements of intersectoral equity and/or the relative efficiency of private and public-sector allocations of resources.

If one accepts the distribution of imports by commodities, then one can criticise the licensing system from an efficiency point of view only in its dual prices for raw materials, spare parts, and capital goods to industrial users; and from the income distribution point of view primarily from an equity argument, *i.e.,* that the public sector should absorb "excess" profits. One can also criticise the tariff system for not adjusting to absorb the entire difference between *c&f* and domestic prices at the licence-determined distribution of imports. Alternatively, if one accepted the set of relative differential implied by the tariff system, one can criticise the licensing system for not adjusting its quantitative controls to equilibrate the profit margin for every commodity. But, one should be careful to distinguish his grounds for criticising the system or for making use of the differentials and profit margins investigated in the empirical section of this paper.

VI. SUMMARY AND CONCLUSION

We have found that the average profit margin over landed cost for imported commodities in Pakistan was about 60 per cent during the middle of 1964. This margin is high enough to absorb small changes in the prices to import licensees. The main determinant of the domestic prices of imports at the margin, therefore, is the licensing system, since it restricts supply and gives high profit to the importers.

There has been heretofore no systematic study in Pakistan regarding the profit margins for imports. The Chief Controller of Imports and Exports has, at times, kept track of the prices of the important commodities in order to rationalise his decisions. However, a knowledge of the extent of markup over landed cost for most items should be extremely useful to both the Chief Controller and the Central Board of Revenue. This type of study should be helpful in estimating the demand for imports at different import prices and different levels of imports (of course, a knowledge of the elasticities of demand is necessary). A movement towards more liberal) zauon or towards an "equilibrium rate of exchange" also depends on knowledge of this margin. In order to determine the impact of different policies, the behaviour, under different policies, of such key variables as the value of the rupee and the prices of imports should

be analysed. If a continuing study along the lines of the present paper could be instituted by the office of the Chief Controller of Imports and Exports or by the Central Statistical Office and kept on a regular basis, licensing and tariff decisions could be placed on a much more solid empirical footing.

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Appendix A

Selection of Commodities

From a study of the recent literature on import-control policy, it is evident that consumption goods, raw materials, and capital goods are treated with different degrees of stringency in licensing. Power noted that "foreign exchange is valued more highly in substituting for imports of final consumption goods than in producing equipment" [17, p. 207]. It has also been argued that the major effect of the increase in imports due to recent liberalization has been in the area of capital goods while raw materials were held under strict control which might result in a low level of utilization of productive capacity. The inconsistency arising out of the degree of stringency in licensing capital goods, consumption goods, and raw materials required that our study investigate how "the pattern of distortions" differed among types of goods. For these broad groups, we followed the Planning Commission-ECAFE definitions. Since by these definitions consumer durables are classified under capital goods, we made a further breakdown of capital goods into consumer durables and machinery and equipment and treated the consumer durables and consumption goods together.

Our objective is to find the gap between domestic market price and landed costs for different imported commodities. As the number of commodities imported is large, we chose a few commodities. In order that our conclusions regarding these few commodities may be applied to the whole of the import sector we first selected "representative" commodity groups in the sense that the shares of these commodity groups in total imports were large and then we selected "representative" commodities from those commodity groups on the criterion of the share of these goods in total imports under the particular commodity group. Detailed statistics of imports of commodities were available only up to 1960/61, selection was based on the share of the particular commodities in 1960/61 and assumed that the same commodities would also be important in 1963/64.

Collection of Data

We compared the landed cost of an imported commodity with its domestic price. The main components of the landed cost are the *f.o.b.* price in the foreign ports, freight charges, import duty, and sales tax. The minor ones, namely, insurance charge, clearance charge, import-licence fee, banking charge and

wharfage cost amount to 2 to 2.5 per cent of the *c & f* costs. So we made allowance for these minor costs as a percentage of the *c & f* costs and added it to import duty and sales tax to get the total landed cost.

The rates of import duty and sales tax were obtained from the *Pakistan Customs Tariff* [14] and *The Law of Sales Tax* [2] respectively. We contacted different shipping agencies for the freight charges. We are thankful to them for providing us with requisite rate structure of freight charges from the main ports of the countries exporting to Karachi.

In comparing the internal price of the imported goods with the foreign prices, we had to be careful in choosing comparable foreign and local prices. In the cases of raw materials and capital goods, we compared the immediate-delivery wholesale price in the domestic market with the wholesale export prices in the international markets *plus* freight and minor charges *plus* import duty and sales tax. In most of these cases, import trade and domestic wholesaling are done by the same firm. We collected the domestic prices from these firms and so the profit margin over landed costs includes in it, among other factors, the "normal" markup for the wholesaler. For the consumption goods, it was easier to collect the retail prices in the local market, The international exporting houses offer a percentage rebate for wholesale purchases. Assuming that this percentage is the "normal" markup for the domestic retailers also, we subtracted it from the domestic retail price to estimate the wholesale price. We are aware of the flaws that can creep in due to this assumption; yet in the absence of any good measure of the "normal" markup going to the retailer, we retained it.

The Pakistan Institute of Development Economics conducted a survey to collect the prices in Karachi. An enumerator was appointed for this special purpose. For capital goods and raw materials, we investigated two sources: the seller and the user. The enumerator asked manufacturers what they paid for their machinery, equipment, and raw materials. The Karachi Polytechnic Institute uses some of the commodities for its workshop and laboratory. The storekeeper there was most helpful in providing us with the data relating the prices he paid for the different commodities. A contractor who dealt in building and construction materials also extended his help. Wholesale markets in Karachi were visited several times to obtain selling price of the items. We checked both the buying price and the selling price to help reduce any bias on the part of one respondent or the other who might be trying to protect his interest. The prices were very close in all the cases.

Trade commissions and trade journals were the most helpful sources of foreign prices. For consumption goods, the catalogues of the reputed exporting houses in free ports have been used.

Product differentiation in cases of consumer goods and difference in sizes and qualities in cases of raw materials and capital goods necessitated giving the specifications in a clearcut fashion. We tried to choose some popular brands of a particular consumption good. Then we averaged the profit margins in these brands. For raw materials and capital goods, the markups for different sizes and qualities have been averaged.

Thus, each observation used in the analysis is an average of several items, and all averages given are really averages of averages. The prices represent spot quotation for the items in question so that, at the specific price, delivery could have taken place immediately in the Karachi area in the period June-August 1964.

Appendix B

Licence-created Profit *vis-a-vis* the Existence of Domestic Industry

The nature of the licence-created profit remains the same, in essence, even if there is domestic supply of an imported commodity. Of course, domestic supply brings price below the "pure scarcity price" of imports and reduced licence-created profits. If the domestic supply curve is S_D S_D (*see* Figure B-1) and the supply curve for imports is S_M S_M, the total supply curve is S_MLRS, when

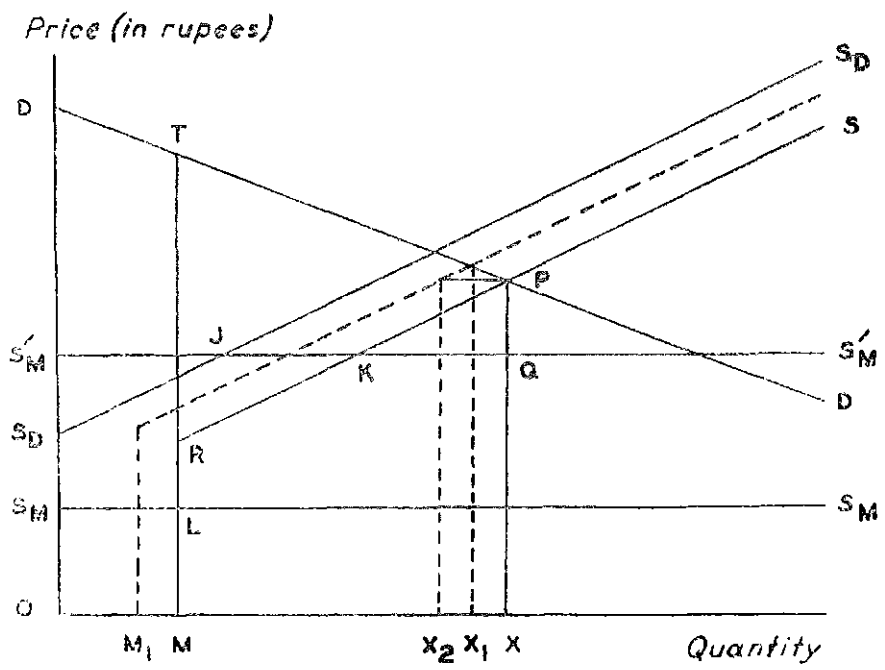

FIGURE : B-1

licensed import is the amount OM. The equilibrium price is PX with OX quantity sold, out of which OM is imported and MX is supplied domestically. MX amount of domestic supply brings down price from TM to PX and licence-created profit for the importer is thereby reduced.

Now, if a rise in landed cost raises the supply schedule for imports to the level $S'_M S'_M$, the new total supply curve will be S_DJKS. Even in the new situation, PX will be the price and OX the quantity sold. $JK = S_DR = OM$ is the (licensed) imported supply and $S'_MJ + KQ = S'_MQ - JK = OX - OM = MX$ is domestic supply. So, with the presence of licence-created profit, if the licensed import quantity remains at the same level, tariffs have no contribution to protection over a wide range. Raising S_MS_M does not change the equilibrium price until landed cost rises above XP. Increased tariffs will not increase protection within this range, the limits of which are set by the licence-created profit.

But, in this situation, further restriction of imports gives increased protection. If imports are restricted to OM_1, the total quantity supplied becomes OX_1. Imports are reduced by $MM_1 = XX_2$ but the total supply diminishes by XX_1 only. The distance X_2X_1 measures the increase in domestic supply resulting from the increased protection provided by reduced amount of imports. Of course, we have not taken account of the excess production costs and have ignored consumption costs altogether.

Now, if a rise in landed cost raises the supply schedule for imports to the level $S'_m S'_m$, the new total supply curve will be SDJKS. Even in the new situation, PX will be the price and UX the quantity sold. JK = SdR = UM is the (licensed) imported supply and $S_MJ + KQ = S_MQ$ JK = UX UM = MX is domestic supply. So, with the presence of licence-created profit, if the licensed import quantity remains at the same level, tariffs have 1l0 contribution to protection over a wide range. Raising S_mS_m does not change the equilibrium price until landed cost rises above XP. Increased tariffs will not increase protection within this range, the limits of which are set by the licence-created profit.

But, in this situation, further restriction of imports gives increased protection. If imports are restricted to OM,, the total quantity supplied becomes OX* Imports are reduced by $MM_k = XX_2$ but the total supply diminishes by XXi only. The distance X_2X_x measures the increase in domestic supply resulting from the increased protection provided by reduced amount of imports. Of course, we have not taken account of the excess production costs and have ignored consumption costs altogether.

TABLE I

RATES OF MARKUP ON IMPORTED CONSUMPTION GOODS AND CONSUMER DURABLES

Name of commodity	Import duty (%on *c&f* value)	Sales (%onc<fi/ +import duty)	Total duty (% on *c&f* value)	Market price—Landed cost	Landed cost	Market price—*c&f* value	*c&f* value
(1)	(2)	(3)	(4)	(% terras) (5)		(% terms) (6)	
A: Regular Items							
Coffee	80	15	107	30		169	
Pepper	5'	15	20.75	106		149	
Cloves	25	15	43.75	96		134	
Saffron	5	15	43.75	67		140	
Beer	16*	20	39.20	61		123	
Citronclla oil	30<i	15	49.50	53		129	
Leather polish	60	4	87.20	42		156	
Glass tumblers	100	15	130	38		225	
Cups and saucers of Chinaware	100	20	140	31		220	
Safety razor	50	15	72.50	90		227	
Electric lamps	40	15	61	36		120	
Radios	80	20	116	78		286	
B: Bonus Items**							
Meat and meal preparations	20*	15	38	82			
Sugar	71-	0	71	6		_	
Tobacco for pipes and cigarettes	234«	0	234	16			
Domestic refrigerators	30	20	56	5		—	
Air conditioners	80	20	116	5		—	
Motor scooters	40	15	61	5		_	
Bioycles	40	15	61	6			
Cameras	60	20	92	7			

Source: Col. (2) from [14]; Col. (3) ***from*** [2],

"Rates in these oases were in absolute terms. They have been transferred to ***ad valorem*** rates by taking the average c&f value as the base.

^Calculations are made assuming that prioe of bonus voucher of Rs, 100 worth of foreign exchange — Rs. 150.

^For British Colony.

"For Ceylon.

"For GATT areas.

TABLE II

RATES OF MARKUP ON IMPORTED RAW MATERIALS

Name of the commodity	Import duty (% on *c&f* value)	Sales tax (% on *c&f* +import duty)	Total duty (% on *c&f* value)	Market price — landed cost	Landed cost J	8 % rv & V S 1	*c&f* value
(1)	(2)	(3)	(4)	(% terms) (5)		(%(erms) (6)	
A : Regular Items							
Teak sawlog	25	0	25	43		81	
Bidi leaf	80	15	107	260		669	
Ultramarine blue	35	15	55.25	29		105	
Tallow	0	15	15	83		115	
Soyabin oil	25	15	43.75	62		138	
Cottonseed oil	25	15	43.75	26		83	
Coconut oil	15"	15	32.25	90		158	
Lithophone	35	15	55.25	28		99	
Celluloid	25	15	43.75	53		123	
China clay	25	15	" 43.75	54		116	
Paraffin wax	30	15	49.50	32		124	
Firebrick	30	15	49.50	13		101	
B; OGL Items							
Ammonium sulphate	0	0	0	60		62	
Agglomerated cork material	25	15	43.75	56		126	
Cinematographic films	60	20	92	32		156	
Caustic soda	25	15	43.75	26		172	
Soda ash	20	15	38	93		173	
Calcium carbide	25	15	43.75	22		79	
Sodium bicarbonate	25	15	43,75	49		115	
Acetic acid	25	15	43,75	72		148	
Tyres and tubes	40	15	61	56		154	
Copper ingot	5	5	10.25	78		100	
Lead ingot	5	5	10.25	108		134	
Alluminiuin ingot	12.50	5	18.12	51		83	
Ziuc ingot	5	5	10.25	88		89	
Tin ingot	5	5	10.25	17		31	
C: Bonus Items							
Copra	10	15	26.50	12			
Wool tops	10	15	26.50	75			
Sodium hydrosulphite	25	15	43.75	5			
D:; Other **Items**							
Gum Arabic (automatic)	15	15	32.25	8		50	
Pig iron (free)	5	5	10.25	15		27	

"For Ceylon and British Colony.

Source: Col. (2) from [14]; Col. (3)from [2].

TABLE rn

RATES OF MARKUP ON IMPORTED CAPITAL GOODS

Name of the commodity	Import duty (% on *c&f* value)	Sales tax (% on *c&f* +import duty)	Total duty (% on *c&f* value)	Market Price—• lane "8 cost Mo TJ -ue a (% terms)	Market price — *c&f* value ! &o (% terms)
(0	(2)	(3)	(4)	(5)	(6)
Iron and steel bars and rods	20	5	26	26	59
Iron and steel sheets, uneoated	)0	5	15.50	58	81
a) Belgium	10	5	15.50	79	
b) UK	10	5	15.50	70	
c) Japan	to	5	15.50	52	
ct) USA	10	5	15.50	41	
Iron and steel plales, unco a ted	10	5	15,50	101	132
Galvanised plain iron sheets & plates	10	5	15.50	36	57
a) Belgium	10	5	J 5.50	52	
b) Japan	10	5	15.50	35	
e) USA	10	5	15.50	22	
Iron wire	12.50	5	18.12	60	80
Steel wire	12.50	5	18.12	90	128
Galvanised iron pipes	20	5	26	78	124
a) Belgium	20	5	26	133	
b) USA	20	5	26	23	
Lead sheet	10	5	15.50	30	52
Electric motors	12.50	20	35	51	105
Bus chassis	30	15	49.50	87	186

Source: Col. (2) from [14]; Col, (3) from [2].

Liberalization of the Foreign Exchange Market

Frank C, Child

This chapter originally appeared as an article in the Summer-1968 issue of *The Pakistan Development Review* and is the result of researches carried out by the author during his association, from August 1967 to July 1969, in advisory capacity with the Pakistan Institute of Development Economics.

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Liberalization of the Foreign Exchange Market

Frank C. Child

There is a pattern in the evolution of exchange control systems. A typical sequence of events is:

Phase 1, implementation — in response to a serious balance-of-payments deficit, a free foreign-exchange market is abandoned in favour of price control and rationing of foreign exchange. Initially, exchange control applies only to major categories of receipts and payments but is rapidly extended to cover all external transactions.

Phase 2, consolidation •— a blackmarket appears; regulations are extended and revised to close loopholes, to cope with shortages, and to repair inequities and anomalies. The foreign-exchange market is fragmented and differential treatment is accorded to different types of trade or traders. Taxes, subsidies, or multiple-exchange rates are introduced to offset, in a discriminatory way, the effect of an overvalued currency on foreign-exchange receipts and the demand for imports. The system becomes increasingly complex and administratively burdensome.

Phase 3, rationalization — the complexity of the system is reduced by consolidation of market fragments. Regulations are simplified and applied to broader categories of transactions. *De facto* but selective devaluation, through tax, subsidy, and exchange-rate adjustments, becomes a policy instrument. Portions of the market are "liberalized" by returning to a limited free market in which price resumes its functions of evoking supply and limiting demand.

Continued disequilibrium, however, sustains the blackmarket which may be "tolerated" as a sort of unofficial free market.

Phase 4, termination — to the accompaniment of some further adjustments of the tax and subsidy structure, there is a return to a free market. However, complete termination may be postponed; phase 3 may continue more or less indefinitely.

With due allowances for Pakistan's unique circumstances and after recognition of some interesting Pakistani innovations, it may still be said that so far the origin and development of Pakistan's exchange-control system fit tolerably well into the above pattern. While it is clearly too soon to predict the advent of "phase 4", it does appear that Pakistan has entered "phase 3". Recent changes have, to a limited extent, simplified and rationalized a complex, discriminatory system. There is open and audible discussion among businessmen and government officials on the question of further liberalization. In [2] and [3], the present writer lias argued that a freer foreign-exchange market in Pakistan is both feasible and desirable. The purpose of this paper is to examine in some detail the feasible and likely paths to further liberalization of the foreign-exchange market.

Some general background on the origin, characteristics, and evolution of Pakistani exchange control is presented in Part I. This is followed, in Part II, by a description of the main features of the present (1968) system. Part III suggests a convenient and expeditious mechanism for liberalization — in anticipation that the arguments for doing so eventually become persuasive to those in authority. The paper concludes with a brief statement of some of benefits to Pakistan which would follow from liberalization.

Exchange control in Pakistan was adopted in 1954 in the face of a serious baiance-of-payments deficit. The circumstances may be illustrated by Figure 1. DD and SS represent the demand for and supply of foreign exchange for Pakistan *circa* 1954. The end of the Korean War had brought a serious decline in export markets and a drastic reduction in foreign-exchange receipts. Maintenance of the official exchange rate, OR0, together with free access to the market, required an outflow of gold or foreign-exchange reserves, VZ, per period of time. (Previously, during the Korean War boom, the D and S functions presumably intersected somewhere in the vicinity of A, so that OR0 was approximately an equilibrium price for foreign exchange.) When the loss of reserve became intolerable, exchange control was adopted as an alternative to devaluation. (Barring destabilizing speculation aud assuming normal elasticities, ORe would be the equilibrium rate.) Henceforth, all foreign-exchange proceeds — and existing private foreign-exchange holdings—were required, by law, to be surrendered to the exchange-control authority at the official rate of exchange. The

foreign exchange forthcoming at this rate, OV, was then rationed, somehow, to importers and other users of foreign exchange. The degree of disequilibrium is represented by the "horizontal gap" between amount demanded and amount supplied, VZ, or by the "vertical gap" between the official ration price of foreign exchange and its scarcity value, GR_e. The latter "gap", $R_o Rp$, is 'a "scarcity premium" which becomes a windfall profit to importers favoured by the rationing system.

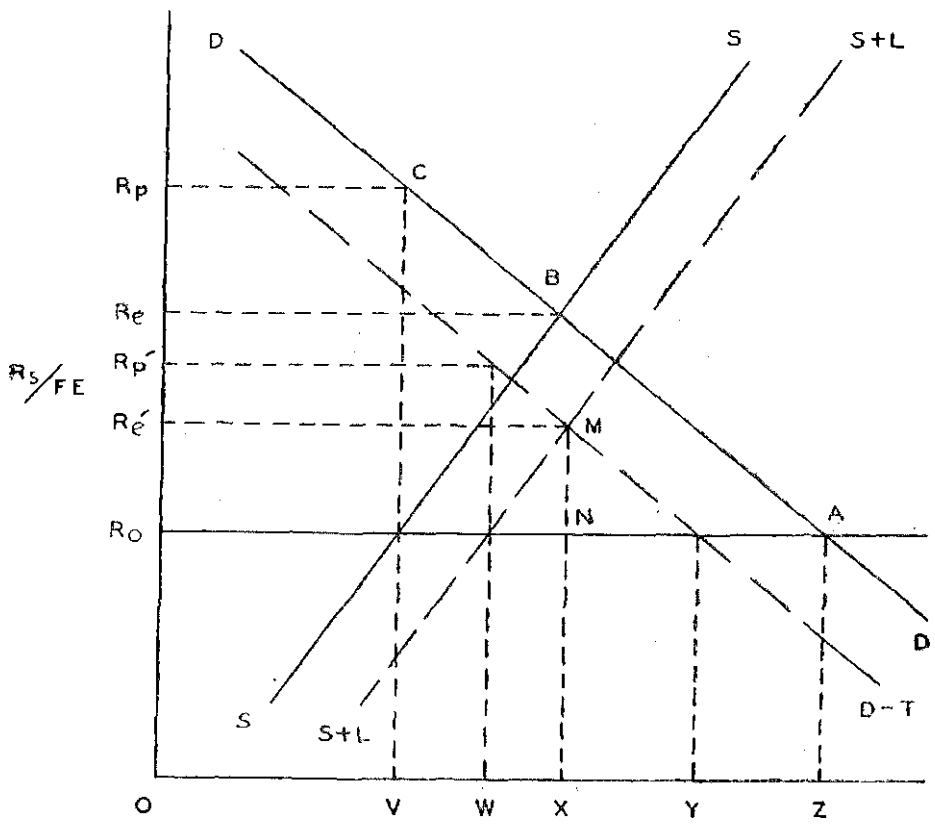

Figure 1. Foreign Exchange Market

It. would have been possible to retain price as a rationing device, *i.e.,* to auction the available foreign exchange in an open market limiting demand to those willing and able to pay the highest prices and, thus, clearing the market at the premium price OR_p. This procedure, widely used in Latin Amorican countries and in pre-War Germany, would introduce a dual pricing system.

Absorption of the scarcity premium by the monetary authority would be tantamount to a tax on external transactions[1]. Price control, in effect, continues the "tax" but diverts the entire amount as a subsidy to importers.

However, Pakistan eschewed price as a market-clearing device and chose, rather, to ration exchange by non-price means. It introduced a comprehensive system of licensing and administrative procedure through which to decide which of the competing demands would be satisfied. Presumably, demands of "high social priority" were met in full; those of lower priority were met in part; and low priority, nonessential uses of foreign exchange were denied —• except insofar as there was leakage from the system into a blackmarket. Indeed, the divergence between the assessment of private and social values would almost certainly lead to a blackmarket and a blackmarket price of exchange, a price in excess of either a devalued free-market rate or the price that would exist in an auction market for scarce exchange. To the extent that administratively determined social priorities required satisfaction of demands of those purchasers with low demand prices — those included in the lower right portion of the demand function — there was a diversion of exchange away from those willing to pay very high prices but with low priority — those included in the demand function above B or even C *(see* Figure 1). We might note in passing that the emphasis on social priorities and the simplicity of rationing by price could be reconciled. By segmenting the import market into, say, capital goods, raw materials, essential consumer goods, and luxuries, available foreign exchange could be allocated to each segment and then auctioned freely within that submarket. This would, of course, be a system of multiple-exchange rates, a system widely used in exchange controlling countries because of its (relative) simplicity. Such a system can be made more sophisticated by introducing multiple-export rates as well. As we shall see shortly, over time Pakistan's trade and payments control system has evolved toward one which approximates these characteristics. In any event, price rationing was avoided, at least at first, probably in an (ultimately ineffective) effort to avoid increasing the rupee cost of imports.

Pakistan's decision not to devalue was, under the circumstances of the time, a reasonable one. At that time virtually all foreign-exchange earnings were derived from traditional agricultural exports. Given normal, low supply elasticities and given world prices, a higher exchange rate would mean higher rewards to exporters without much increase in output, *i.e.,* higher economic rents. In the case of jute, low-demand elasticity abroad, even with a positive supply response, might *reduce* foreign-exchange earnings. On the import side, prices would increase across the board — on consumer goods, capital goods, and imported raw materials. The total impact would be essentially a change in the

»ts the exchange profit of the monetary authority, RoRp per unit, a "tax" on exporters who receive less than the market value of their export earnings? Or is it a "tax" on importers who must pay more than the exporters receive for their foreign exchange?

internal terms of trade in Pakistan — in favour of sectors producing traditional agricultural exports and against consumers generally and industry in particular. Questions of "fair" distribution of income aside, such a change was inconsistent with plans for a high saving rapidly industrializing economy with urban/industry as the leading sector *(see* [2 ;3]).

Systems of exchange control substitute administrative rules, regulations, and procedures for the indirect controls of a self-regulating market place. Since the foreign-exchange market is normally highly organized and centralized, it appears to be easily regulated; virtually all international transactions pass through the hands of a few foreign-exchange dealers, usually commercial banks, who conduct their affairs meticulously and with a high degree of technical efficiency. With exchange control, however, it soon becomes apparent that there are numerous other, though less convenient and efficient, ways to accomplish international money transfers. The pressure of excess demand makes these alternatives attractive and profitable; effective, exchange control requires that these "loopholes" be closed or brought into the controlled system. And as each loophole is closed, new ones appear — a tribute to man's ingenuity. Exchange control contains a sort of built-in, self-generating mechanism for its own extension, once established it must be constantly revised and extended.

Pakistan's exchange control is 1l0 exception to this rule; it has been consistently, regularly revised. Virtually every issue of the official *Gazette of Pakistan* contains some addition, deletion, or modification of the regulations and procedures. Just a few examples: prices of traded commodities are subjected to administrative review to reduce the incidence of over- and under-invoicing of imports and exports; travellers are subject to a variety of constraints and record-keeping requirements to reduce blackmarket currency transactions; international mail must be inspected to check illegal currency transfers and to minimize private barter/compensation arrangements between two pairs of trading partners; some sort of "certificate of origin" (and inspection) is required for commodities which' might originate in a country with which trade is banned: and, of course, there is the chronic problem of smuggling.

The more serious the market disequilibrium the greater the pressure for circumventing the regulations and for extra-legal transactions. An alternative to more rigid controls is a reduction of the disequilibrium pressure and Pakistan has, from time to time, revised its control system in this direction. The scarcity premium 011 imported goods, the difference between internal scarcity value and landed cost, has been reduced by higher import duties; tariffs and excises have been increased and new surcharges imposed. (Additional taxes on imported goods shift the demand curve for foreign exchange downward from D to D-T in Figure 1.) The Bonus Voucher Scheme has decontrolled or "liberalized" a portion of Pakistan's foreign trade, *i.e.,* returned it to a more or less self-regulating free market. The price paid for bonus vouchers effectively absorbs the

scarcity premium on goods so imported and transfers this premia to exporters to offset partially the inhibiting effects of an overvalued currency on the volume of exports (see p. 188). All these measures, and others, reduce the incentive for circumventing exchange control.

Autonomous or fortuitous circumstances also affect the system and lead to change. A substantial inflow of aid loans and private capital has, over the years, augmented foreign-exchange supplies, reducing the excess demand for and the scarcity premium on foreign exchange and reducing the need for even tighter controls. (Capital imports shift the supply curve in Figure 1 from S to S + L and, in conjunction with the lower demand curve, D-T, reduce the scarcity premium to R_1R_p'). The war with India, hesitant action by the Aid consortium, and substandard harvests during 1966 and 1967, on the other hand, increased the disequilibrium. The devaluation of sterling in November 1967 was the occasion for a significant liberalization; the bonus voucher issue rate for eligible exporters was increased by 10 per cent, stamped (restricted use) bonus vouchers were eliminated, the export taxes on raw jute and cotton were eliminated, and a 10-per-cent "regulatory duty" was imposed on a wide variety of imports[2]. We might add that these actions are tantamount'to a 6-9-per-cent devaluation despite the official announcement to the contrary that Pakistan would not devalue its currency in the wake of the British pound.

Finally, an exchange-control system will be modified over time to adapt it to changing public policy goals. As indicated above, Pakistan adopted exchange control to meet a serious balance-of-payments deficit. Today the rupee remains overvalued and exchange control continues to defend the balance of payments. But exchange control now serves a larger purpose; it has become part of a comprehensive system of economic controls designed to promote saving, investment, and economic growth. By controlling the volume, composition, and terms of international transactions, it seeks to guide the quantity and quality of domestic economic activity — the price structure, resource allocation, output composition, and income distribution. Such goals require more and different devices than simple management of a foreign-exchange scarcity. The system has become comprehensive, complex, and discriminatory. In addition to a multiplicity of discriminatory taxes, it employs a variety of equally discriminatory and frequently discretionary quantitative and procedural controls over external transactions.

II

The most striking and important feature of the present exchange-control system is the fragmentation and compartmentalization of the foreign-exchange—

"Exceptions: the new regulatory duty was not applied to bonus-voucher imports nor to a few commodities used exclusively in agriculture. The duty was limited to 5 per cent on a few consumer goods and on capital goods and machinery imported into East Pakistan.

market. While the various submarkets have certain common characteristics, each one has its own unique features with respect to commodities which may be traded, eligible participants, procedures to be followed, and degree of constraint.

Except for the ceiling imposed on the exchange rate, administrative constraints on exports from Pakistan are few. Exports are licensed but this is essentially a surveillance procedure designed to encourage compliance with the requirement that export proceeds be surrendered to the monetary authority. About 55 per cent of Pakistan's export earnings from raw jute, cotton, skins and hides, and a few minor items, are converted to rupees at the official rate (Rs. 4.75 = $1). The remaining exports—from the developing manufacturing industries, certain service industries, and some invisibles—receive supplementary price incentives of various sorts (to be described below) which increase their rupee return to Rs. 6-8 per dollar with a few rates going as high as Rs. 12 per dollar.

On the import side, capital goods for establishment, expansion or modernization of industry enter the country at the official rate of exchange (plus various taxes) and access to exchange for these purposes requires a licence based on a prior "investment sanction" that the project is in accordance with the Comprehensive Investment Schedule of the development plan. All other imports enter the country under one or more of seven import procedures[a].

A. *Licensing* has, since 1954, been the basic procedure through which to ration limited supplies of foreign exchange. Simple in form, licensing requires that established importers "register" with the Chief Controller of Imports and Exports and, as such, they become eligible to obtain licences for import of eligible commodities up to some specified limit. Each registered importer's quota is expressed as a percentage of his "entitlement" or "category" the amount imported during some base period or the amount adjudged necessary to operate his facilities at a "normal" rate. Licensed imports enter the country at the official exchange rate, plus applicable duties.

Over the years, the list of items importable under ordinary licensing has been reduced as alternative import procedures have been instituted. At present there are 25 groups of commodities remaining on the licence list and they are subject to a variety of constraints and restrictions; three groups are importable by public-sector agencies only, three by "industrial users" only, and five by "actual users" (ultimate consumers) only. The rest are available to any eligible "commercial importer". Certain goods are importable only from specified countries and two commodities may be imported "subject to availability of U.S. PL-480 funds". Pharmaceutical importers are required to obtain prior approval

[a] **The following summary of procedures with respect to each import submarket is based primarily on the "Import Policy" announced in the *Gazette of Pakistan—Extraordinary,* January 15 and January 20, 1968.**

of the Director General of Health and their incoming shipments must contain not less than 30 per cent (in value) of a list of specified goods but not more than 30 per cent of another list. Payment to abroad must be accomplished through a banker's Letter of Credit (L/C) the face value of which must fall within minimum and maximum limits set by the monetary authority. The limits vary among commodities; pooling of quotas to accommodate these limits is permissible. Import of "spares" for industry requires the approval of the Directorate of Industry. This list of constraints is not exhaustive but representative.

B. *The Free List* includes those items which may be "imported without cover of licence". A reading of the "fine print" explaining the procedure reveals, however, that the free list is free in name only. Of the fourteen groups of commodities on the list, two are importable by the public sector only, five by industrial users only (of which two are specified, particular industries), one is for East Pakistan only. Industrial users may open L/Cs equal to 100 per cent of their entitlements (quotas), as shown in their importers' passbooks, while commercial importers may open L/Cs within stated minima and maxima *provided* they were importers of that same commodity between July 1964 and July 1967 *and provided* that their L/C may not exceed the amount imported during July-December 1967. Moreover, commercial importers are limited to trade in one, in some cases two, commodity on the list. There are additional constraints similar to those applicable to ordinary licensing which leads to the conclusion that except in the most formal and limited sense, free-list importing is essentially a second-licence procedure. Originally the free list was a special category of goods importable from countries which have (tied) commodity aid programmes for Pakistan. Since aid-financed goods may now also be imported under other procedures, this distinction has lost much of its meaning, although free-list items arc still specified as to source, *i.e.,* they may be imported only from countries with aid or barter agreements with Pakistan.

Free-list goods enter the country at the official rate of exchange plus applicable duties. While the degree of excess demand is not serious, there is apparently some scarcity premium; otherwise there would be no need to ration imports.

C. *The Bonus Voucher Scheme* is the most novel and interesting element of Pakistan's foreign-exchange market *(see* [1 ; 4 ; 6]). Briefly, under this procedure selected exporters receive bonus vouchers — a right to purchase foreign exchange at the official rate of exchange—in an amount equal to some fraction (currently 20 per cent, 30 per cent, or 40 per cent) of the foreign-exchange proceeds surrendered at the official rate to the exchange-control authority. Upon presentation of bonus vouchers, import licences are issued automatically to importers of a list of eligible goods. Given the scarcity value of imports, voucher holders have a valuable and marketable property. There is an organized market (including a futures market) for bonus vouchers. Given the

exporters' supply function, the bonus voucher issue rate, and the demand function of eligible imports, there is a unique bonus-voucher price and rate of sale which will clear the market[4].

The bonus-voucher segment of the foreign-exchange market has been gradually expanded since its inception in 1959. Currently, almost all exporters of manufactured goods, certain service industries *{i.e.,* aircraft maintenance, hotels), tourist sales centres, and exporters of *basmati* rice[5] may earn bonus vouchers—unless they are re-exporting or are exporting under barter agreements. The import list has grown to include 244 commodity groups from machinery and raw materials to consumer durables. In addition, with one or two exceptions, any item on the free list, the licence list, or on the cash-*cum*-bonus list *(see* below) may also be imported at the higher bonus rate of exchange. There are some administrative constraints. Certain items are importable into only one of the two wings of Pakistan and several are importable by industrial users only. A number of bomis imports are subject to quantitative restrictions *(e.g.,* automobiles).

The bonus-voucher market is the channel through which the stultifying effects of direct controls have been ameliorated without, apparently, sacrifice of public-policy goals. It has been a major factor in promoting exports of Pakistan's nascent industry; manufactured exports have increased at a rate of almost 100 per cent per annum since 1959 and the share of such goods in Pakistan's total exports is approaching 50 per cent. On the import side, bonus vouchers face an exchange rate more than 150 per cent above the official rate and are subject to (frequently very high) taxes and surcharges. Nevertheless, bonus imports are currently nearing 10 per cent of the total. It is an outlet for excess demand in other segments of the market.

D. *A Cash-cum-Bonus* procedure was established in 1967; as the name implies it is a compromise between the bonus-voucher system and ordinary licensing. Under this arrangement, importers may obtain import licences only when applications are accompanied by bonus vouchers covering 50 per cent of their exchange requirements. Quotas for industrial users are set at 100 per cent of their half-yearly entitlements; those of commercial importers are set by stated minimum or maximum value of the L/Cs which may be opened. Commodities transferred to this new segment of the market from the free or bonus

4The mechanics of the bonus-voucher market will be examined in detail below, *see* page 194.

SThe inclusion of *basmati* rice, which accounted for 6 per cent of Pakistan's exports in 1967, is incongruous. Trade control regulations specify that this high-quality rice is for export only. Although there is substantial "disappearance", the entire crop is subject to government procurement at a low fixed price. The government's purchases are then sold, at auction, to exporting firms. The auction price is expressed in terms of foreign exchange payable after the rice is actually exported. They are, however, granted 20 per cent bonus vouchers on their export proceeds. Under these oircumstancesf the bonus vouchers "earned" are at best superfluous, at worst a simple windfall to the exporters.

lists, for which there were no established quotas, are available only to importers with a previous record of imports. The cash-cwm-bonus list contains 73 commodity groups of which 43 are importable by industrial users only and five are importable into East Pakistan only.

If it operates as described, the system is essentially a variation of the ordinary licensing procedure with an import surcharge; the bonus-voucher requirement transfers a portion of the scarcity premium on imports to the bonus-voucher market and should support the bonus-voucher price. There are reports that, in fact, cash-cu/H-bonus importers have been unable to obtain the "cash" portion of their licences while the "bonus" portion is readily available. If this is true, and this writer has not been able to verify the report, the cash-ci/w-bonus procedure is a *de facto* extension of the bonus-voucher system with a quota constraint.

E. *Export-Performance Licensing* (EPL) of imported industrial inputs is permitted, subject to approval of the Chief Controller of Imports and Exports and the Export Promotion Bureau. Import licences, presumably above and beyond entitlements under normal licensing, are issued at rates of 2.5-30 per cent of the *f.o.b.* value of exports of some 143 commodities. Advance licensing based on an agreed export target is also permitted but an exporter who does so is subject to a penalty in the form of bonus vouchers to cover licences issued but not ultimately "earned" by export performance. Although imports under export-performance licences are not supposed to be transferable, their value, like that of bonus vouchers, derives from the domestic scarcity value of imported goods. They are, in effect, restricted-use bonus vouchers similar to the stamped bonus vouchers issued to exporters of jute manufacturers until the end of 1967.

Export-performance licensing is an administrative nightmare of such horrendous complexity as to break the spirit of the ablest bureaucrat. Procedures for establishing eligibility and issue rates are complex and responsibility is split. Supervision of the procedure and enforcement of conditions by the responsible agencies are onerous; costs of compliance on the part of businessmen are unusually high. The system is a channel for political pressure from special economic interests. Any useful purpose served by export-performance licensing can be met by incorporating it into the general bonus-voucher system; EPL should be abandoned forthwith.

F. *The Trading Corporation of Pakistan* (TCP) was established in 1967 as a public agency through which importers are required to place their orders for six metal products from seven countries. Importers' quotas — at 29 to 262 per cent of the old half-yearly entitlements — are effectively pooled and bulk purchases made. Since the commodities concerned are covered by barter agreements with various countries, it would appear that TCP is simply an indenting service established to control the volume and terms of barter trade. Importers are

fearful that it is more of a device to erode their profit margins by absorbing the scarcity premift on goods so imported. The writer has not yet found incontrovertible evidence to support or refute these fears but the anguished cries of the business community lead one to suspect that it is so.

Bulk purchasing or sales in barter or other markets by TCP might permit better terms on external transactions. TCP offers its services as a broker or agent to any interested importer or exporter and while the agency hopes to provide a useful service, few firms have thus far availed themselves of the opportunity.

G. Under the *Baggage Allowance* exemption, Pakistani travellers returning to the country may import, duty-free and without licence, Rs, 1,250 worth of goods per trip including one refrigerator, one airconditioner, and one radio per year. The volume of consumer durables so imported has led to a structured market for these items and their market price has fallen below landed cost plus normal markup in commercial channels. Indeed businessmen offer and publicly advertise their willingness to order and receive merchandise from abroad so that no traveller's exemption need be lost. While it seems reasonable to permit travellers to bring home some personal items, gifts, and mementos, the present exemption clearly provides a loophole through which a significant volume of foreign exchange is drained.

Superimposed over this entire exchange structure is a large element of discretionary administrative control. The Chief Controller of Imports and Exports, in consultation with a number of other governmental units, has the major responsibility for formulating and implementing public policy in this area. The State Bank has the immediate administrative responsibility. The State Bank, in turn, relies upon foreign-exchange dealers, the "scheduled" commercial banks, to operate the system by requiring that all foreign-exchange transactions must pass through the banking system. Import transactions must be accomplished through letters of credit opened at one of the scheduled banks, each bank being responsible for supervision and enforcement of the applicable regulations. In the process the State Bank must, within the limits of the "foreign-exchange budget", establish suballocations or subauthorizations of exchange which set a limit on the availability of exchange for various categories of importable goods. There is some evidence that the State Bank imposes informal foreign-exchange quotas against which L/Cs may be issued to various importers; when the allocation is exhausted no further L/Cs may be issued unless and until additional foreign-exchange allocations are forthcoming. Indeed, the January-1968 Import Policy explicitly states that import quotas will be met "subject to the availability of exchange". Commercial banks, in turn, may discriminate among their customers. Moreover, the State Bank and the various scheduled banks, which act as its agents, exercise cohsiderable discretion in the speed with which administrative procedures are completed, effectively hastening or delaying

the process for particular transactions. This is especially notable with respect to the occasional provision for so-called "automatic repeat licensing" available to importers of certain commodities during a six-month shipping period.

The complexity and variability of the system requires that the State Bank and CCI&E establish an appeal procedure to resolve questions about eligibility of importers, the size of quotas, and applicable procedures. It appears that the controlling agencies have established a sort of rule-by-precedent to reduce the load of discretionary decisions.

Further, the monetary controls are butteressed by (buttress?) the basic commercial policy. Export duties have been abolished but imports are subject to tariffs, excises, a defence surcharge, a rehabilitation tax and regulatory duties, as well as licence and registration fees. In general, the tax rates are "cascaded" with highest rates applicable to "nonessential" consumer goods or products whose production is encouraged under the "import substitution" policy, lower rates on essentials and industrial raw materials, and the lowest rates on capital goods. On many items there is an outright ban. The latest import policy contains eight lists of banned items and anything not explicitly permitted is banned. There are exceptions — lathes are importable but certain sizes, commonly used in Pakistan, are banned. There are exceptions to exceptions — steel pipe is importable, except certain sizes which are banned, except certain speciality pipe which is permitted.

The complexity and intricacy of the system is, if anything, understated by this summary. Yet we hasten to add that Pakistan's exchange-control authorities have shown remarkable ingenuity and responsiveness in the ways in which they have modified — and even simplified—the system so that it would serve as an effective instrument of public policy. Until 1965, substantial liberalization and simplification of the system was obtained through Open General Licensing, expansion of the free list, and the introduction of the Bonus Voucher Scheme. In 1965-67, with an increased degree of disequilibrium, administrative controls were tightened. Open general licensing was abandoned, the free list became just another licensing procedure, and the bonus-voucher system was hedged with quotas and administrative constraints. However, the new cash-*cum*-bonus procedure plus a variety of other minor changes in the latest import policy ' suggest that more liberal policies are possible.

We may note, parenthetically, that some discrimination and bilateralism is imposed externally. So long as the various aid-lending countries tie their development loans to their own particular exports, exports which are priced above the world market price, Pakistan has little choice but to impose bilateral clearing for aid-financed commodities. The alternative is chaotic, dual pricing for a single commodity or the imposition of constantly changing and probably ineffective discriminatory taxes and subsidies to eliminate the differential between prices in the world market and the aiding country *(see* [3]).

H I

The liberal case for a free market as the mechanism for allocation of scarce resources is based, primarily, on two arguments: *i)* economic efficiency; and *ii)* low social cost of administration. The former argument has become somewhat attenuated because of a growing awareness, among political practitioners if not among economists, that the achievement of "Pareto Optima" is an inadequate or even inappropriate public-policy goal. It is clear that private and social values or costs can and do diverge. Problem of externalities, convexities, and interpersonal comparisons of welfare vitiate the usefulness of criteria of economic efficiency. The dynamics of growth frequently call for abrogation of the requirements of static efficiency. In less arcane terms, social goals with respect to economic growth, resource use, and income distribution may require decisions inconsistent with those which would obtain when private individuals make unfettered decisions in a "natural", unregulated, market-guided economy. It is on such grounds that Pakistan has opted for a controlled disequilibrium rather than a free market for foreign exchange. In doing so, however, Pakistan has run afoul of *ii)* above. Exchange control has clearly become costly to administer. It is complicated, slow, cumbersome, uncertain, inefficient, and conducive to corruption. One suspects that it has become so intricate that it no longer "controls" effectively, that it is unable to accomplish the ends for which it is intended.

For example: businessmen and government officials have informed this writer that, in some cases, the combined export incentives under the Bonus Voucher Scheme and Export Performance Licensing are sufficient to permit profitable sale of exports for less than the cost of their imported raw-material content. Similarly, it is reported that the scarcity premium on imported raw materials is high enough that, in some cases, it pays to import capital equipment solely for the raw-material-import quotas that can be justified by higher-output capacity. Since capital-goods imports are routinely overinvoiced, the fact that capital equipment may be under- or unutilized is not a deterrent. The scarcity value of imported raw materials plus the premium attached to foreign balances is great enough to offset the cost of capital equipment which may be imported at an artificially low exchange rate. It is anomalous that capital goods are imported, under a rationing system at artificially low prices, when existing productive facilities in industry operate at 40-60 per cent of capacity*"'. These and other examples suggest that the exchange system in Pakistan is out of control. A liberalization of the foreign-exchange market would actually promote better "control" in the sense that the pricing system would enforce more uneconomical use of scarce resources and simultaneously reduce the administrative burden

These figures are "armchair" but widely accepted estimates in Pakistan. For an incomplete but informative report on rales of utilization of capacity in selected industries,.we 151.

of the system. A generalization of the bonus-voucher market offers the most expeditious route to this end.

The operation of the bonus-voucher market may be illustrated with the aid of Figure 2[7]. Let OS_b represent the foreign-exchange supply function for certain export industries; it assumes given world prices, given domestic cost functions, and given domestic demand for exportable goods. At the official

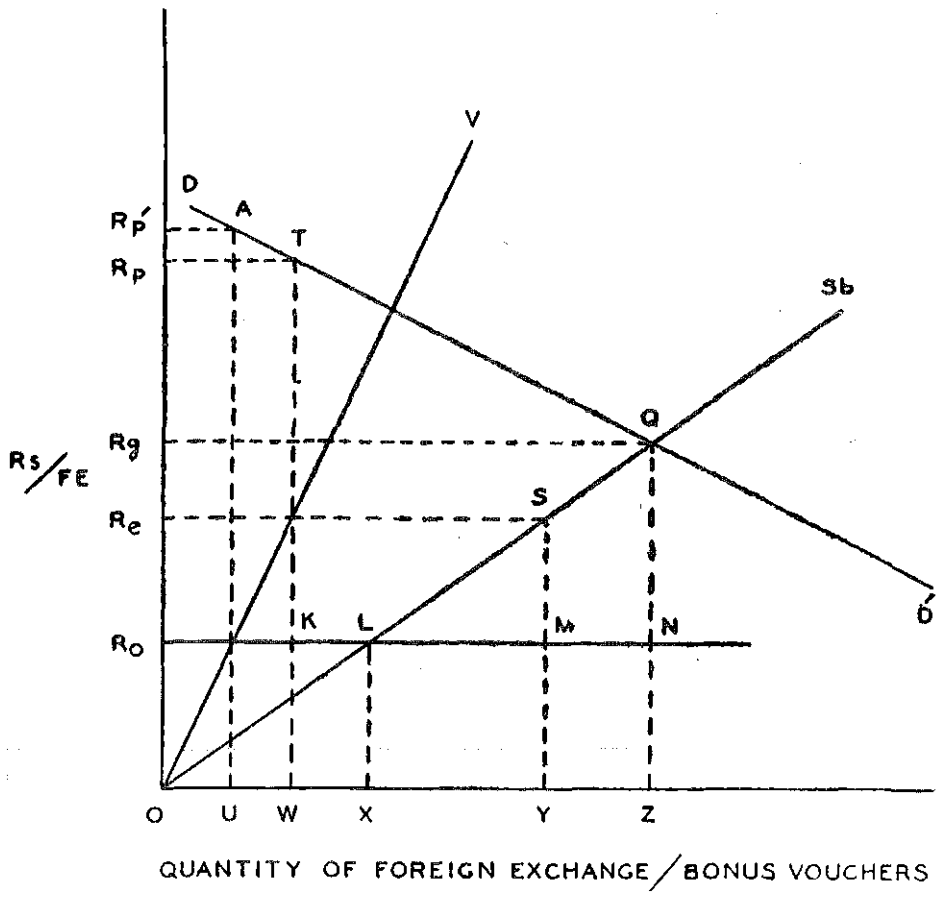

Figure 2. The Bonus Voucher Market

rate of exchange, OR_o, exporters of these products will export (say) OX dollars (pounds, francs, *etc.*) worth of goods, receiving OR_oLX rupees in exchange. Suppose that these particular industries are now provided export incentives in the form of (say) 30 per cent bonus vouchers, *i.e.*, for each $100 of foreign ex-

[7]The following presentation of the mechanics of the bonus-voucher market is taken from [4].

change earned and surrendered to the exchange-control authority at the official rate of exchange, exporters receive transferable bonus vouchers entitling the holder to purchase $30 of foreign exchange together with an import licence for $30 worth of eligible goods. The line OV is a reference line indicating the volume of bonus vouchers issued with each alternative rate of export proceeds®. Alternatively, the line OV indicates that fraction of the foreign-exchange proceeds of bonus-voucher exports which must be earmarked to honour the exchange authority's commitment to sell foreign exchange against vouchers. For example, if OY of foreign exchange is surrendered to the exchange-control authority by the exporters concerned, OW of this amount is committed to those importers exercising bonus-voucher rights and WY of exchange is available to the authority to meet other demands.

Indeed, in this example, OY is the equilibrium foreign-exchange value of bonussed exports. DD' represents the demand for foreign exchange for those commodities eligible for import under bonus. Upon introduction of the Bonus Scheme, exporters who have been earning OX of foreign exchange will receive, in addition to OR0LX rupees, OU of bonus vouchers. In an auction market, importers will pay ORp' rupees for each of the OU units of exchange available to them. Since they pay OR0 for each unit of foreign exchange when they utilize the bonus vouchers, R0Rp' is the price they will pay for the vouchers themselves — the bonus-voucher premium. The bonus-voucher premium provides a price incentive to exporters to generate more bonus vouchers. As export earnings and the volume of vouchers rise, the price of vouchers will fall; equilibrium will be reached when OW of vouchers sell for R0RP rupees each. At that price, the total bonus-voucher premia R0RPTK is just sufficient to generate OW supply of vouchers; this amount, when spread over total exports, yields an exporter's premium of R.Re per unit of foreign exchange for a total of R0RCSM. (The area RoRpTK equals the area R0ReSM.) Any bonus-voucher price other than R0Rp, given the 30-per-cent issue rate, will lead to an excess demand for or supply of bonus vouchers.

There are at least five interesting features of the bonus-voucher system: *i)* imports under bonus are "liberalized" in the sense that these goods are rationed by the pricing system rather than by an administrative procedure ; *ii)* the scarcity premium on eligible imports is captured and transferred to exporters, thus stimulating export earnings, *i.e.,* the procedure is a *de facto,* albeit partial, devaluation of the rupee; *iii)* unlike exporters who receive vouchers for a fraction of their foreign-exchange earnings, importers must buy all of their foreign exchange with vouchers; /v) that fraction of export proceeds not committed to honour bonus-voucher holders' claims is available to the exchange-control

«In fact, bonus vouchers are issued at three different rates — 20 per cent, 30 per cent, and 40 per cent — for different export commodities. For simplicity of presentation, a single rate of issue is assumed.

authority to meet other import demands; and v) the fractional issue rate of bonus vouchers drives a wedge between the import and export rates of exchange, it creates a multiple-exchange-rate system[s]. Generalization of the bonus-voucher system — and further liberalization — could be accomplished by increasing the bonus voucher issue rate to 100 per cent and extending the system to cover all transactions.

Increasing the issue rate to 100 per cent would eliminate the difference between the import and export rates of exchange. Again referring to Figure 2, equilibrium in the limited bonus-voucher segment of the market would be reached at Q; the effective rate of exchange would be ORg. OZ amount of foreign exchange would be traded for OR„NZ rupees and an equal amount of bonus vouchers would trade for R„RgQN. Since the 100-per-cent rate of issue of bonus vouchers "commits" the entire proceeds of bonus-voucher exports, the voucher system no longer contributes any foreign exchange to other import procedures. However, total export proceeds would rise as would bonus-voucher imports. If the bonus-voucher system were completely generalized to apply to all transactions, it would mean *de facto* devaluation, a free market, and a unified rate of exchange. Referring back to Figure 1, OX of foreign exchange would be "officially" traded at the price OR0 and bonus vouchers of the same quantity would be exchanged in a free market for a premium of R.Re'. Total export earnings would rise, permitting an increse in total imports.

The crucial difference between a generalized bonus-voucher market and an ordinary free market is that it retains the key role of the State Bank in the exchange market. All foreign-exchange receipts would continue to be surrendered to the State Bank (or its agents) at the official (arbitrary) rate of exchange; all foreign-exchange purchase would be made from the Bank (or its agents) at the same rate. The State Bank would remain the bottleneck through which foreign exchange is channelled and the free market for vouchers is superimposed on top. An equilibrium quantity of exchange would pass through the market at the official rate of exchange but the maket would actually be cleared or "equilibrated" by an exchange of bonus vouche/s at some equilibrium price. There are singular advantages to this dichotomy.

First, it is possible effectively to exclude certain foreign traders from the market in accordance with public policy, *e.g.,* those who demand foreign exchange for non-permissible capital export or for purchase of banned commodi-

s>The import rate of exchange is R, = R0 (1 +*p*), where R0 is the official rate and *p* is the bonus-voucher price expressed as a percentage of the official rate. The export rate is Re = aRm + (1— ***a*)** **Ro=Ro (1 -!- *op*), where *a* is the bonus voucher issue rate. For some years, bonus vouchers sold at 150-160 per cent of the official exchange rate; therefore, R, is approximately Rs. 12 =$1 and Re is approximately Rs. 7= $1, when the bonus voucher issue rate is 30 per cent. Since November 1967, the price of bonus vouchers has been generally higher and somewhat less stable.**

ties. Secondly, it continues the Bank's careful scrutiny, but not rationing, of foreign-exchange transactions. Thirdly, it maintains the organization and structure of the exchange-control system intact. In the event of large shifts in external conditions, which require adjustments beyond the ability of a free market or the internal economy to respond in an orderly way, controls and non-price rationing can be adopted forthwith. In short, it retains a second line of defence in the event of a disorderly foreign-exchange market.

We also note in passing that it would probably be appropriate for the State Bank to intervene, on occasions, as a participant in the voucher market. In the face of seasonal fluctuations in the demand for or supply of vouchers/ exchange, it would be expedient to dampen price fluctuations and discourage disequilibrating speculation. It would also reduce the element of uncertainty in foreign trade associated with fluctuating exchange rates. This is nothing more than the usual suggestion that the monetary authority be willing to risk temporary losses or accumulations of foreign-exchange reserves by acting as an exchange stabilization fund[10]. If the present futures market for bonus vouchers can be developed to perform this stabilizing function, the need for official intervention is reduced.

Two earlier import procedures, Open General Licensing and the original Free List, were attempts to move toward a more "liberal" payments system; each proved nugatory in the end. Both arrangements are moribund and they were quietly dropped in 1967 without benefit of public announcement. The bonus-voucher system remains the single major success in the direction of liberalization. There are indications in 1968 import policy, however, that this market, too, is to be brought under more direct control; quotas were imposed on certain bonus imports and the cash-ct/m-bonus procedure, which carries quantitative restrictions, implies new controls in the bonus-voucher market. Closer examination, however, reveals that integration and coordination of the cash-cwm-bonus and ordinary bonus-voucher procedures offer possibilities for liberalization of the foreign-exchange market. Generalization of the combined bonus-voucher and cash-cww-boniis systems presents an attractive and feasible method for rationalization and simplification which is potentially as effective as and perhaps more flexible than a simple 100-per-cent bonus-voucher market as described above.

It will be recalled *(see* Figure 2) that fractional bonus voucher issue rate on the export side and a 100-per-cent bonus-voucher requirement on the import

. lOThe rather remarkable stability of the present limited bonus-voucher market has led some observers to suspect such intervention on the part of the monetary authority. Offioials at the State Bank have denied any such stabilizing actions. It is possible that the futures market contributes a stabilizing influence. The policy-making authorities seem *to* consider stability in the bonus-voucher price when they alter the rate of issue of bonus vouchers and ohange the composition of the bonus-voucher import list — as they do every six months. Also, *see* page 202.

side separate the import and export rates of exchange. Dual pricing is consistent with market equilibrium because only 30 per cent (OW) of bonus-voucher export proceeds is committed to bonus-voucher imports; the remaining 70 per cent (WY) of export earnings is diverted to other segments of the foreign-exchange market. The export rate is the weighted average of the official and bonus-voucher import rates[11].

The cash-cww-bonus import procedure is analogous to the fractional bonus-voucher issue rate on the export side. Importers of cash-cwm-bonus items must purchase a portion of their foreign exchange with bonus vouchers but, when they do so, they are entitled to purchase their remaining foreign-exchange requirements at the official rate. This procedure increases the exchange-control authority's commitment of foreign exchange to bonus-voucher holders. For example, if the present cash-mn-bonus ratio of 50:50 were applied to all bonus-voucher importers participating in the market, illustrated by Figure 2, the fraction of bonus-voucher export proceeds available to importers would be doubled. Since each unit of foreign exchange purchased with voucher permits an additional unit to be purchased without voucher, each bonus voucher becomes, in effect, a right to purchase two units of foreign exchange[12]. In terms of our diagram, we need another "reference line". OV still shows the volume of bonus vouchers generated by the system but a second reference line, rotated clockwise from OV so that it stands at 60 per cent of the horizontal distance from the vertical axis to OSb denotes the foreign exchange available to voucher importers. This change would, of course, require an adjustment to a new equilibrium relationship involving the price of bonus vouchers, the volume of exports, and the differential between importers' and exporters' rates of exchange.

More generally, the portion of foreign-exchange proceeds available to bonus-voucher importers is S = Si, (r//), where r is the bonus voucher issue rate and / is the bonus-voucher fraction of the exchange requirements of casli-cww-bonus importers. It is apparent that if r and / are equal, the total foreign-exchange earnings, Sb, are committed to bonus-voucher importers and that dual pricing of exchange is eliminated>3.

The system can, of course, be generalized. Suppose that a bonus voucher issue rate of 30 per cent is applied to *all* export transactions and that *all* imports require cash-cww-bonus in a 70 per cent/30 per cent ratio. Referring to Figure 3, OS represents the foreign-exchange supply function and OV the (30 per cent) bonus-voucher reference line. Given demand, DD', equilibrium will be established at B with OX volume of foreign exchange traded at an effective rate of

uSee **footnote 9 on page *196*.**

"As mentioned earlier, there are reports that the exchange authority does not always honour its commitment to provide the cash portion of cash-eiwj-bonus importers' requirements. Also, there are quantitative strictions on cash-cw«-bonus imports. It is here assumed that cash exchange is provided and that quotas are eliminated or redundant.

"In the previous example of a generalized bonus-voucher market, r=/=100%.

exchange of OR_c. OR_c remains the official (and arbitrary) rate of exchange; the *average* premium over the official rate is R_pR_c. Concomitantly, OZ of bonus vouchers (30 per cent of OX) are traded at a price of R_pR_p; the area R_pR_pAK is equal to area R_cR_cBC. Moreover, any value for r and / would do as well, Given an equality of *r* and /, the total bonus-voucher premia must be R_pRcBC, if the market is to be cleared; the market price of bonus vouchers will vary inversely with the volume of bonus vouchers generated by the system. Using the line R_cC as a horizontal axis, the dashed line AB is a rectangular hyperbola, a locus of points representing the various bonus-voucher premia for

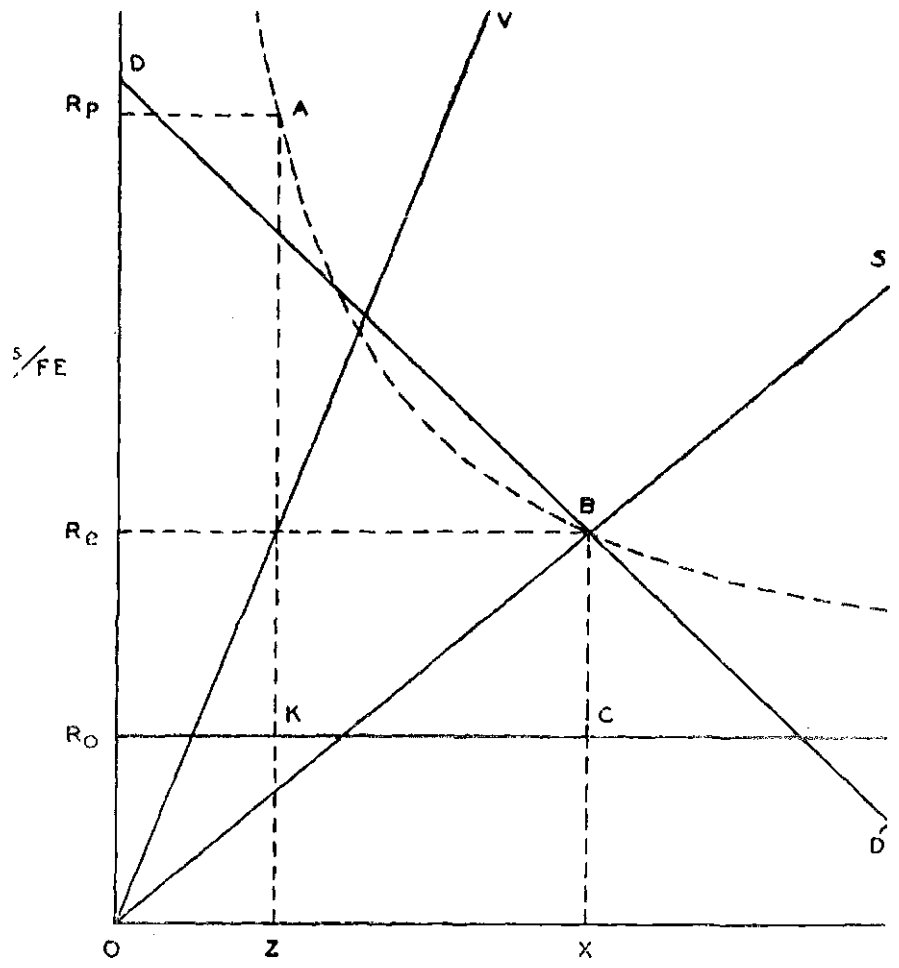

Figure 3. Bonus Vouchers/Cash-cwwi-Bonus: Foreign Exchange Market

different $r - J$ values. In short, it is feasible to accomplish simplification and rationalization of the foreign-exchange market by generalizing the cash-*cum*-bonus procedure.

It is also possible to continue the discriminatory treatment of import and export transactions by application of differential or multiple rates of r and /, If the bonus-voucher portion of cash-cum-bonus (/) equals the bonus-voucher issue rate (r), 100 per cent of the economy's foreign-exchange earnings are available to importers and there will be a single, unified rate of exchange, J On the other hand, if r / f^ 1, there will be an inequality between current bonus receipts and current bonus payments and a disparity between the effective import and export rates of exchange. If $r j f <$ 1, some portions of bonussed export proceeds are diverted away from the market for, *e.g.,* non-price rationing to preferred importers, official government imports, official debt service, or accumulation of foreign-exchange reserves[14]. If, on the contrary, $r If >$ 1, the exchange-control authority is committing foreign-exchange resources beyond current bonus receipts, *i.e.,* drawing down foreign-exchange reserves[15]. In addition, if public policy goals call for discrimination among importers and exporters, multiple rates of r will provide differential incentives (penalties) to different categories of exports and multiple rates of / will establish preferred (or penalty) rates of exchange to different importers. So long as the weighted average of rs and /s is equal, the market will be cleared; if the weighted average of $r j f$ \, foreign-exchange reserves will rise or fall. A bonus-voucher system is a powerful instrument for use or misuse by public policy-makers.

It is clear that some form of generalized bonus-voucher procedure will simplify and liberalize Pakistan's foreign-exchange market. There are, however, institutional constraints which may preclude extension of the system to the entire market. The problem areas are imports of government and quasi-governmental units, aid-financed imports, and trade under barter agreements.

I) Government imports and imports of government enterprises are currently purchased at the official, undervalued price of foreign exchange. This practice seriously understates the scarcity value of imported resources. If all privately used imported resources were priced at a free-market rate, as they would be if a bonus-voucher procedure were generalized, underpricing of government imports would become an even more serious problem. Without entering into a debate over the relative efficiency of government and private enterprise, the price discrepancy would be so large as to lead to serious misallocation of resources.

I'tThis is, of course, the state of affairs in the present, limited, bonus-voucher market **(*see* page 194).**

"It would be possible U support an excess of r over / by offering aid-funded foreign exchange or other official capital inflows to supplement foreign-exchange receipts from trade and private capital inflpw. For reasons to be noted below, there are compelling arguments against doing so **(*see* page 201).**

The price disparity would be eliminated if government agencies and enterprises, too, were required to import with bonus vouchers 16. (There is still a question of the dutiability of government imports.) The budgetary impact of higher rupee cost of imports would be modest and would be more than offset by revenues from premia on aid-supplied foreign exchange.

2) Aid loans are tied to exports of the aid-lending country, frequently to products whose prices exceed those of the world market. Tied loans require creation of a special submarket for aid-exchange. As already noted, aid-eligible commodities are imported under free-list or cash (aid)-cww-bonus procedures and, while relatively free from unusual constraints, are importable only from the specified, aid-lending countries. It is difficult to integrate the aid-goods market with the general market. A merged market would require a single bonus-voucher price; barring the unlikely case in which the effective exchange rates are equal in the two separated markets, a unified price would create an inequality between aid flows and aid imports, *i.e.,* the accumulating of unutilized aid (or the misuse of aid) or the import of expensive aid-type goods against Pakistan's own foreign-exchange earnings, *(see* [3, Appendix]). An alternative would be the use of a discriminatory regulatory duty on import of aid-competing goods from the world market. This latter possibility is apparently the purpose behind the announced — but not yet implemented — price-equalization tax. But a price-equalization tax is a cumbersome device which would need continual adjustment to reflect changing external price differentials. A second alternative is the introduction of a special variety of bonus vouchers sold against aid exchange and goods only for import of aid commodities from the respective aid-lending countries. This would be the operating equivalent of the recently eliminated stamped bonus vouchers. It would mean constructing a separate submarket for aid goods but, within that market, price would be the rationing device and the differential between the price of aid and regular vouchers would automatically reflect the high prices of the aid-financed goods. Aid vouchers would presumably sell at a discount compared to the more valuable, regular vouchers.

It would be necessary to establish a separate aid voucher and aid-voucher market for trade with each country providing tied aid loans. If the aid loans are commodity-tied as well as country-tied, or if the total volume of aid from a particular country was very small, special bonus vouchers would be impractical. In those cases, it would be expedient to acquire aid-financed imports through the Trading Corporation of Pakistan, both to ensure the best possible terms of trade and to capture for public purposes any scarcity premium on goods so imported.

ifiTha government has already announced a withdrawal of the preferential treatment of public-sector industry with respect to importation of raw materials and spares. Henceforth, pubJiciy-operated enterprises must import these items under the same conditions as private firms.

A major advantage of the special voucher is that its price would absorb the scarcity premia presently available on aid imports. Furthermore, it would generate at least 80-100 crore rupees of government revenue, more than enough to offset the budgetary impact of higher government import costs mentioned earlier.

3) Barter trade creates similar problems. The only difference between the market for barter trade and aid-financed trade is that the supply of foreign exchange for the former derives from Pakistan's supply of barter-eligible export commodities and the demand for these goods by the trading partner rather than from a negotiated loan. The achievement of "equilibrium" in these markets depends upon the constraints imposed either unilaterally or by negotiation. Trade in such commodities could also be conducted with another variety of restricted voucher or, since barter agreements are generally negotiated with socialist countries, barter trade could be conducted through the Trading Corporation of Pakistan to ensure volume and terms of trade which are consistent with the agreement and mutually acceptable to both trading partners.

A final point: we have noted the rather remarkable stability of the price of bonus vouchers at 155-160 per cent of the official rate of exchange. Such stability appears to be the consequence of official policy. Whenever the voucher price departs substantially from the "norm", subsequent revision of the "Import Policy" alters the composition of the bonus-import list to increase or decrease the demand for bonus-vouchers, and brings the price back to the "desired" level. The apparent motive is to provide a "proper" level of incentive to bonus-voucher exporters, ***i****.e.,* an effective export rate of exchange of around Rs. 7 = **$1.** While such a procedure clearly reduces the element of uncertainty in the market for bonussed exporters, it does so at the expense of a high degree of instability and uncertainty for importers. Continuation of this practice would be inconsistent with liberalization of the foreign-exchange market. As noted earlier, short-run exchange rate stability can be provided by operations of the futures market and/or by stabilizing intervention in the market by the State Bank *(see* page 197).

IV

In this paper, we have emphasized the mechanics of Pakistan's exchange-control system. We have suggested a means by which policy-makers could, if they so desired, liberalize the system. Given the present state of affairs, it would appear that some sort of generalized Bonus Voucher Scheme is the most expeditious route to a liberal market. Furthermore, the writer has made no effort to conceal his own conviction that such a liberalization is desirable as well as feasible. Major benefits would accrue to Pakistan from a freer, simpler foreign-exchange market.

In the first instance, the present system is very costly to administer. Management of a disequilibrium market requires an extensive governmental apparatus, both to facilitate compliance and to minimize evasion. Administrative talent is a scarce resource in Pakistan; reducing the volume of regulations and narrowing the range of bureaucratic discretion would reduce the administrative burden. Similarly, fewer and simpler rules reduce the cost of compliance for foreign traders — the paper work, the multiple approvals, the delays and uncertainties, the petty tyrannies of minor officials — implicit in extensive and discretionary regulation. Substantial savings of administrative and managerial resources are possible by greater reliance on a free market.

We have also noted that the present system is almost beyond effective control; a freer market for foreign exchange would promote efficient operation of Pakistan's economic system. For example:

1) Generalized bonus vouchers would extend to traditional, non-industrial exports, the incentives and favours currently granted only to manufactured products[17]. Now, when agricultural productivity and production are rising sharply as a consequence of rapid innovation, is an appropriate time for change in export policy. Normally low price and income elasticities of demand will certainly lead to falling agricultural prices; unless agricultural prices can be supported, price changes will wipe out much of the gains to farmers from the agricultural revolution. But a government price-support programme would flood available storage facilities at high cost to the public treasury. Falling rupee prices may eventually open export markets but bonus-voucher-export incentives will promote exports with a smaller decline in the internal price level. Liberalization along the lines described above will promote export earnings without such a serious wretching of the internal economy and will do so at a propitious time when the flow of foreign aid/loans is diminishing.

2) If foreign-exchange earnings expand there can be a larger and more stable flow of imported raw materials, promoting more intensive use of existing but underutilized industrial capacity and reducing the problem of unemployment of labour.

3) Generalized bonus vouchers would increase the cost of imported capital; this, too, would have a salutory impact on the economy. Capital in Pakistan is presently underpriced and rationed. However, as noted above, the exchange-control regulations have permitted and even encouraged the creation of idle industrial capacity. Moreover, when capital is underpriced, businessmen and farmers have incentives to substitute capital for labour even though it is

"The bonus vouchers given to exporters of *bcumati* rice benefit only the commercial exporterj not the rice producer. Indeed, the artificially low rice procurement price is a disincentive: to the grower.

obvious that in Pakistan capital is a scarce resource and labour is so abundant that much of it is idle. A price for capital, more nearly equal to its scarcity value, would discourage creation of further excess capacity and remove the capital-intensive bias in present investment programmes. It would induce the system to economise on the use of its scarce capital and promote employment of abundant labour.

4) Expansion of employment and avoidance of the more extreme capital-intensive methods of production will be conducive to more rapid and wide-spread development of labour skills. The machinery used in capital-intensive methods of production is usually complex and requires a small number of highly skilled workers for its effective operation and maintenance. Highly skilled workers are scarce in Pakistan. Utilization of somewhat more modest and less complicated equipment will introduce mechanical skills to more people more quickly, at lower cost and with less effort. Later, as the labour force becomes more familiar with machinery and capital is more abundant, the transition to more complex technology can be accomplished with less trauma.

5) A liberalized foreign-exchange market would alter the internal inter-sectoral terms of trade and relative factor prices; it should reduce, somewhat, the extremely unequal distribution of income. Increasing demand for labour, as per 2) and 3) above, will increase the total wage bill and perhaps the wage rate. Agricultural prices will be higher than would otherwise be the case. More importantly, liberalization would eliminate the windfall profit (scarcity premia) presently accruing to favoured, and usually well-to-do, importers. While the cost to importers of imported goods or goods with import content will rise, the price to the users of these goods will not rise; their scarcity value is already reflected in the market price charged by importers. Increased volume of imports may even lead to a decline in the prices paid by consumers.

In short, a liberal market would increase economic efficiency through more intensive use of available resources and through more efficient allocation of those resources among alternative employments. This is not, we assert, an ideological question nor a special brief for a free market *per se.* A price system as a guide to economic activity is, after all, only a means to an end and not an end in itself. Direct controls are both necessary and desirable under a variety of circumstances. At this stage in the development of Pakistan's economy, however, a free market is indicated on purely pragmatic grounds—it would better serve Pakistan's interests.

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Comparative Costs, Factor Proportions and industrial Efficiency in Pakistan

Nurul Islam

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Comparative Costs, Factor Proportions and Industrial Efficiency in Pakistan

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The paper presents, in Section I, new and additional evidence on the comparative costs of manufacturing industries in Pakistan. Furhermore, the findings of the present study are compared with those of earlier studies. Comparative costs in this context are defined as the ratios of ex-factory price of specific domestic products to *c.i.f.* prices of closely competing imports. In Section II, it examines whether the tariff rates are an adequate index of the comparative cost ratios *i.e.,* in other words, whether the differences in the tariff rates reflect the differential cost structure of Pakistani industries ? We also examine, in Section III, whether the available data provide any evidence on the relationship between the magnitude of cost disabilities of the Pakistani industries and their stage of infancy, *i.e.,* whether and to what extent cost ratios decline with the growing up of infant industries. This paper also analyses, in Sections IV and V, how far comparative cost ratios can be used as a measure of the relative inefficiency of industries in Pakistan? How far, for example, the high cost ratios of domestic industries merely indicate that the Pakistani rupee is overvalued ? How far the cost ratios are affected by or represent high profits of industries ? An attempt is made to adjust for both the overvaluation of foreign exchange and the prevalence of abnormally high profits. Finally, in Section VI, we relate the comparative cost ratios of the manufacturing industries to their factor intensities or their factor proportions in an attempt to explore whether relative efficiency is correlated with the relative intensity of use of the different factors such as capital, labour, and skill.

I. EVIDENCE ON COMPARATIVE COST RATIOS

Pakistan's impressive achievement in the growth of the industrial sector has attracted a considerable amount of analysis, especially with respect to the pattern or strategy of industrialization and the efficiency of the industrialization programme. This paper is an attempt to analyse the comparative cost structure of the Pakistani industries, based on a direct estimate of the costs of the individual manufactured goods and the *c.i.f.* prices of the closely competing import products. The data are derived from the published and unpublished reports of the Pakistan Tariff Commission on 115 industries scattered over a 15-year period, *i.e.,* 1951-661. The analysis covers about 359 products. They, in no sense, therefore, constitute a random sample from the manufacturing sector as a whole so as to represent various industrial groups. The most important industries such as cotton textiles, jute textiles, woollen textiles and fertilizers are not included at all in this analysis since they have not been subject to investigation by the Tariff Commission. For the same reason, there are also important omissions from within such industry groups as machinery, both electrical and otherwise, and transport equipment. The industries covered here, moreover, range over both the large-scale and small-scale manufacturing sectors. The difference in cost conditions between large and small firms is ignored in the analysis.

The total number of establishments or firms covered in the present analysis, excluding such industries as coir-goods industry, washing-soap industry, leather-footwear industry, and *bidi* industry, where small firms predominate, is around 1,164. This number, however, still includes a few small firms in a number of industries such as paints and varnishes, non-metallic mineral products, engine turbines, *etc.,* which are included in the analysis. Since the number of establishments in the large-scale manufacturing sector, as reported in the revised 1959-60 Census of Manufacturing Industries, is about 3,800, our coverage is quite large[2].

Does an analysis of the cost ratios of only those industries which have been investigated by the Tariff Commission yield biased results, because only inefficient industries will need such intervention? This is unlikely since the great majority of the manufacturing industries in Pakistan have ex-factory prices higher than the competing world prices, and thereby are prospective candidates for protective tariffs. The reasons why some industries come before the Tariff Commission and

[2] All the data relating to cost ratios, unless otherwise specified, are from [8], The specific reports have *not been* cited and, in some cases, the reports have *not been* published so far. The Cost data relating to sugar, cement, and paper are taken from [3, Pp. 121-128],

Since data on the value of output of industries covered in this analysis are not available, it has not been possible to estimate the proportion of the total industrial output which the industries covered by the present study contribute. However, an attempt is made to compare the number of establishments in specific industry groups which are covered in the present analysis with the number of establishments in corresponding major industry groups which are recorded in the Census of Manufacturing Industries, 1959-60 in Appendix B. This comparison only includes those industry groups from the Census which include commodities investigated by the Tariff Commission.

others do not are not systematically related to their respective relative efficiency. Thus, for instance, some industries receive protection from foreign competition through high revenue tariffs or quantitative restrictions on imports, none of which require the intervention or investigation by the Tariff Commission. There is likewise no reason to believe that the protective incidence of these measures is systematically related to the comparative cost structure of the industries, since the height of revenue duties or the level of quantitative restrictions is determined primarily without reference to the cost structure of the affected industries. Fiscal and balance-of-payments considerations are the principal determinants of the levels of these alternative instruments of import restrictions. Therefore, there does not seem to be any strong reason for bias in the sample, one way or the other, with the result that what is true of the given sample of industries in the present study is likely to be broadly true of the whole range of industries in Pakistan.

It is also important to remember that the cost ratios for each industry are the averages of the ratios for the individual products which are included in each industry. There are in some cases important differences in the cost ratios between different products produced by the same industry. While the average cost ratio for the industry as a whole in some cases may be high, individual products may have cost ratios which are higly competitive with imports. Moreover, there are instances where differences in efficiency exist between different firms producing the same product. Again, there are differences in the *c.i.f.* prices of the same product, depending upon the sources of supply. The cost ratios reported in this paper are, however, averages for a number of firms or represent the cost ratio of the representative firm chosen by the Tariff Commission for its cost analysis. The data relate to the years 1951-66 and the different industries are covered in the different years, limiting the value of an intertemporal comparison. Where cost ratios differ because of difference in the *c.i.f.* prices from different sources, an average of the cost ratios based on different *c.i.f.* prices is taken[4].

The average cost ratios have been computed in three different ways for each of the time periods. Firstly, the simple averages of the cost ratios have been computed for the periods, *i.e.,* 1951-55, 1956-60 and 1961-66, respectively. Secondly, for each period, the individual industry ratios have been computed as a simple average of the cost ratios for individual products covered by an industry. The output data relating to individual products are not available;

3[4], There are in many instances indirect taxes in the form of sales and excise duties on the manufactured goods produced at home. The indirect taxes are not relevant for an analysis of comparative costs and efficiency of the manufacturing industries; however, they affect the prices facing the domestic consumers and the relative use or consumption of the different products is affected by their relative prices including taxes. The *c.i.f.* prices of competing imports on which comparative cost ratios are based include the costs of transportation, a change which will affect the *c.if.* prices and cost ratios. This need to be borne in mind while using cost ratios as an indicator of the cost disability or the relative inefficiency of the Pakistani industries.

in fact in the majority of the cases, data relating to the value of output of an individual industry are also not available so that they can be used as weights. Accordingly, the number of products produced by each individual industry is used as weights to arrive at estimate of the average cost ratio for all the industries in each of the time periods. Thirdly, an attempt was made to classify the individual industries into major groups, following the classification used by Pakistan Standard Industrial Classification which is also used by the Pakistan Censuses of Manufactures. The cost ratios for these major groups have been computed by weighting the individual industry ratios by the number of products covered by them. But, then, in the next stage, the cost ratios of the major groups of industries are combined together by using as weights the values of gross output of each of the major groups of industries, as given in the Censuses. This average cost ratio is obtained for each period. The three sets of ratios are given below:

TABLE I

COMPARATIVE COST RATIOS*

	1951-55	1956-60	1961-66
		Average values	
(A)	1.56 (1.49)	1.40	1.83 (1.66)
(B)	1.65 (1.57)	1.62	1.83 (1.70)
(C)	1.56	1.33	2.16
		Median values	
	1.43	1.40-1.42	1.64-1.65

*The weights for 1951-55 are obtained from the Census of Manufacturing Industries, 1955 [7] and those for 1956-60 from Census of Manufacturing Industries, 1959-60 [7]. The weights for 1961-66 are obtained from the unpublished Interindustry Tables [12].

The cost ratios are based on ex-factory prices without indirect taxes. The (A) ratios are unweighted simple averages of individual industry ratios; (B) ratios are based on the number of products produced by each industry as weights; and the (C) ratios are based on the number of products as weights for deriving the cost ratios of each major industry group which are then weighted by the values of output of each major group of industry. Each of the three different systems of weighting has its own limitations. The best weights would have been the value of output of each individual industry to which a cost ratio relates. However, data on the value of output of each individual industry are not available. The first method, in fact, implies an equal weight to every ratio. To the extent that the relative numbers of products produced by different industries diverge widely from the relative outputs of different industries, the (B) ratios may contain a

bias in favour of industries with a greater diversity of products. The (C) ratios are based on the appropriate weights insofar as the weights for the cost ratio of each major group of industries are concerned, even though the cost ratios for each major group suffer from the same limitation as that of the (B) ratios. The (A) and (B) sets of cost ratios are roughly comparable. The changes in the cost ratios of all the three sets between the different time periods are in the same direction. They all go down in the second period and go up in the third. The ratios within brackets exclude the extreme values above 3.00 and they are about 4 to 5 times for the whole period. The ex-factory prices, on the average, are about 50-90 per cent higher than the corresponding *c.i.f.* prices in the different time periods whereas the median values of the excess of the ex-factory price over the *c.i.f.* prices range between 40-65 per cent.

It may be pointed out, however, that the cost ratios of 3 out of 62 industries in the period 1961-66, 2 out of 29 industries in the period 1951-55, and 5 out of 24 industries in the period 1956-60, were less than one; this implies that they were highly competitive and their prices were less than the *c.i.f.* prices of competing products.

An attempt has been made to classify the industries into three groups, *i.e.,* consumer goods, intermediate goods, and raw materials and capital goods, and to examine how the cost ratios differ between these three groups of industries which are given below[4]:

TABLE II

COST RATIOS (WITHOUT INDIRECT TAXES)

	Consumer goods	Intermediate goods	Capital goods
Simple average	**1.58 (1.34)**	**1.78 (1.68)**	**1.70**
Median value	**1.40**	**1.58**	**1.62**
Weighted average*	**1.60 (1.43)**	**1.87 (1.77)**	**1,77**

***The weighted average ratios used hereafter in this paper are based on number of products relating to a particular industry as weights.**

The cost ratios computed by the different methods for consumer goods are consistently lower than those for the other two categories whereas, as between the intermediate and capital goods, both tlie weighted and simple average cost ratios of the former are higher than that of the latter. But the differences between the cost ratios of the two latter categories virtually disappear when the extreme

4The ratios within brackets exclude extreme values and are weighted averages—weights being the number of products in each industry.

values are omitted, as indicated in the above table. A more detailed picture of the comparative cost ratios of the three categories of commodities is seen below:

TABLE Ifl

COST RATIOS FOR THREE MAIN CATEGORIES OF INDUSTRIES

Groups (cost ratios)	Consumer goods		Intermediate goods		Capital goods	
	Frequency distribution	% of total frequencies	Frequency distribution	% of total frequencies	Frequency distribution	% of total frequencies
0.50-0.99	7	16.3	1	2.6	2	6.0
1.00-1,50	21	48.8	13	33.3	12	36.4
1.51-2.00	10	23.3	15	38.5	11	33.3
2.01-2.50	1	2.3	8	20.4	5	15.2
2.51-3.00	1	2.3	—	—	3	9.1
3.01-3.50			—	—	—	—
3.51-4.00	2	4.7	1	2.6	—	—
4.01-4.50	—	—	1	2.6	—	
4.51-5.00	—	—	—		—	—
5.01-5.50			—	—	—	
5.51-6.00	1	2.3	—		—	—
6.01-6.50	—	—	—	—	—	—
	43	100.0	3?	100.0	33	100.0

The greatest number of consumer-goods industries, *i.e.,* 49 per cent of the total, have cost ratios between 1.00 and 1.50 and about 23 per cent have cost ratios between 1.50 and 2.00; in the case of intermediate and investment goods, almost equal precentage of industries, *i.e.,* between 33 per cent and 38 per cent, have cost ratios ranging *a)* between 1.00 and 1.50, and *b)* 1.51-2.00, respectively. About 20 per cent and 15 per cent, respectively, of the intermediate- and capital-goods industries have cost ratios between 2.00 and 2.50 whereas only about 8 per cent of the consumer goods fall in this range. The range of cost ratios derived above seems to compare well with the results of an earlier study[9]. The latter estimates the domestic prices of imports which may be used to derive the cost ratios of domestic industries, as shown in the Appendix A. In spite of the differences in methods and sources of data as well as the commodity composition of the two samples, the overall comparability of the two sets of cost ratios adds to the degree of confidence in the general level of cost disability of the different manufacturing industries in Pakistan, as evidenced from the present study.

s[9]. Unweighted averages in Table IV are simple averages of cost ratios, and weights used in the estimation of weighted averages are the values of imports of individual items or of the category of commodity to which the item belongs.

II. COMPARATIVE COSTS AND TARIFFS

A pertinent question relating to the measurement of comparative costs is whether, and to what extent, tariff rates measure or fail to measure comparative costs. In a regime of quantitative restrictions, the usual assumption is that tariffs underestimate the excess cost of the domestic product over the *c.i.f.* price of the competing imports. Therefore, the tariff rates on different commodities may not reflect the cost disadvantages of the producing industries.

Another hypothesis suggests that the excess of ex-factory price (inclusive of indirect taxes) over landed costs (inclusive of excise and sales taxes) is a uniform percentage of landed costs for all commodities. Thus, Soligo and Stern, in their analysis of effective protection, derive the world prices of the domestic products by deflating the domestic prices by tariffs alone, ignoring scarcity margins**. They assume that as a group the scarcity margin is the same for goods and investment goods and that domestic prices are at least equal to *c.i.f.* price of a competing import converted at the official exchange rate plus import duties. Thus, where scarcity margins are positive, tariffs alone will understate cost disadvantage, and where scarcity margins are negative, the cost disadvantage of domestic industries will be overstated. The following analysis provides additional evidence on the overall magnitude, both positive and negative, of interindustry differences in scarcity margins.

TABLE IV

RATIO OF ACTUAL EX-FACTORY PRICE INTO LANDED COSTS

Year	Equal to one	Below one		Above one	
	No. of items	No. of items	Average ratio	No. of items	Average ratio
1951-55	–	9	0.75	22	1.29
1956-60	2	21	0.72	27	1.42
1961-66	5	47	0.75	120	1.47

In the majority of the cases, ex-factory price exceeds landed cost (67 per cent of the total number of items) whereas in 30 per cent of the cases it falls short of the landed cost. In a very few (about 3 per cent) they are equal. The ex-factory price below the landed costs may imply either that for these products the tariffs

<[11, Pp. 249-266], The landed costs in Tables IV to VII include both the tariffs as well as excise and sales taxes on imports and the ex-factory prices likewise include indirect taxes. The ratios are weighted ratios, weights being the number of products to which each price ratio relates. Each industry ratio is a simple average of the ratios for the different products and the ratios for different industries are weighted by number of products of each industry in order to obtain an overall ratio.

are redundant, or that the domestic product fetches a lower price because of inferior quality. Even when rates are determined by the Tariff Commission at a particular moment of time, tariffs and quotas may be out of line with the divergence between the *c.i.f.* and the ex-factory price and they need revision which takes place with a time lag. Often these rates and quotas are fixed without reference to the Tariff Commission and hence without any reference to the divergence between the ex-factory price and the *c.i.f.* price of the competing product. Moreover, an industry which starts out with its ex-factory price being equal to or higher than the landed cost, both because of high profits as well as of high costs, may after a period, not only reduce costs but also earn lower profits owing to increasing competition.

In many cases, the available data on the ex-factory prices relate to fair ex-factory prices rather than to actual prices. For the purposes of the estimate of scarcity margins, 'fair' prices have been used only when actual prices are not available so that the former provides an additional evidence on the magnitude of scarcity margins. To the extent that fair prices are lower than actual prices, which is the case in the great majority of the cases, excepting where firms were making losses, the corresponding scarcity margins are an underestimate of the actual scarcity margins. Sixty per cent of the items have positive scarcity margins varying between 43 to 73 per cent, as seen below:

TABLE V

RATE OF FAIR EX-FACTORY PRICE TO LANDED COSTS

Year	Equal to one	Below one		Above one	
	No. of items	No. of items	Average ratio	No. of items	Average ratio
1951-55	1	23	0.80	40	1.43
1156-60	_	12	0.72	12	1.73
1961-66	_	6	0.65	13	1.43

Thus, the general range of the positive scarcity margins in the case of both fair-price and actual-price rise is as high as 30-50 per cent above landed costs, except for the period 1959/60 when the margin for "fair price" went up as high as 73 per cent above the landed costs. In many cases, ex-factory prices are below landed costs, about 25-30 per cent below landed costs.

The scarcity margins widely vary as between different commodities, as is evident from the coefficient of variation of the ratios of ex-factory actual prices to landed costs for individual commodities.

TABLE VI

COEFFICIENT OF VARIATION OF RATIO OF EX-FACTORY ACTUAL PRICE TO LANDED COSTS

	A	B
1951-55	0.17	0.96
1956-60	0.81	0.56
1961-66	1.51	3.78

Notes: A indicates the coefficient of variation for the ratios below one.
B indicates the coefficient of variation for the ratios above one.

As between different classes of commodities in terms of actual ex-factory price, the highest scarcity margin is in the category of consumer goods whereas in terms of fair price, capital goods have the highest margins. In both cases, consumer goods have the largest number of items with negative margins, as seen below:

TABLE VII

RATIO OF EX-FACTORY PRICE TO LANDED COST

	Fair 1951-66		Actual 1951-66	
	Below one	Above one	Below one	Above one
Consumer goods	0.72 (23)	1.32 (26)	0.67 (38)	1.53 (35)
Intermediate goods	0.89 (3)	1.39 (12)	0.74 (17)	1.43 (75)
Capital goods	0.78 (15)	1.69 (27)	0.87 (22)	1.39 (59)

ID. COMPARATIVE COSTS AND INFANT INDUSTRY

In a young industrializing economy, infant industries start out with high costs which, with the acquisition of skill and experience in terms of management and technical knowledge, are expected to decline over the years. Accordingly, cost ratios may be related to the age of the individual industries. It may be argued that an older industry, irrespective of its nature, benefits more from the growth of external economies and an industrial milieu. The cost ratios of the different industries on the basis of the number of years of their operation can be

combined in a few limited number of broad groups as follows:

TABLE VIII

of firms	No. of produots	No. of years in operation	Comparative cost ratios	
			Unweighted	Weighted
41	131	1-5	1.54	1.61
25	112	6-10	1.61	1.65
23	49	11-20	1.46	1.61
2	4	21-30	1.34	1.34
2	12	31-and-above	1.61	1.83

There does not appear to be any clear relationship between length of life and comparative cost ratios. However, the data presented above do not provide an adequate test of the hypothesis partly because the composition of industries in different age groups is different and partly because the number of industries which have operated for a longer period, *i.e.,* above 20 years or so, is very small. Conceivably, different industries have different periods of infancy and some develop competitive efficiency earlier than others. But in the above sample, various industries with widely different characteristics are lumped together for each age group. Table IX below indicates the cost ratios by the three broad categories of industries, *i.e.,* consumer goods, intermediate goods, and capital goods as well as by the number of years in operation[7].

TABLE IX

Industry	Number of years in operation				
	1-5	6-10	11-20	21-30	31-and-above
	Cost ratios				
Consumer goods	1.37 (12)	1.64 (14)	1.25 (10)	1.11 (1)	1.33 0)
Intermediate goods	1.64 (19)	1.83 (3)	1.73 (6)		
Capital goods	1.82 (10)	1.61 (8)	1.84 (7)	1.57 (1)	1.88 (1)

A more detailed classification of industries is given in Table X.

'The cost ratios are weighted cost ratios—weights being the number of products. The figures in brackets ofTable IX indicate the number of firms relevant to each period.

TABLE X

COST RATIOS OF MAJOR GROUPS OF INDUSTRIES AND NUMBER OF YEARS IN OPERATION

Industry	Number of years in operation				
	1-5	6-10	11-20	21-30	31-and-abova
Canning and preserving	1.41	1.42	–	–	–
Bakery products	1.19	1.23	0.67	–	–
Alcoholio beverages	–	–	–	–	1.33
Footwear	1.44	–	1.63	–	–
Paints, varnishes and polishes	1.55	1.47		–	–
Matches	–	–	0.96		–
Pharmaceuticals	2.67	1.89	–	–	
Industrial chemicals	2.71	–	–		–
Rubber and rubber products	1.78		1.75		–
Petroleum products	–		1.40	–	
Non-metallic mineral products	1.64	1.13	1. 25	–	
Basic metals	–	–	1.00	–	
Metal products	1.51	1.67	2.07	1.11	
Nonelectrical machinery		1.46		1.57	1.88
Electrical machinery	2.63	1.62	1.69	–	
Transport equipment	1.31	1.23		–	
Plastic products	1.13	1.95	–		–
Paper and paper products	–	–	1.32	–	–
Made-up textiles	1.40	0.68	–	–	
Miscellaneous manufacturing		1.59	1.42		

The sample of industries in the last two age groups is too small to permit any comparison. Even comparison among the last three age groups does not yield any consistent and systematic behaviour of the cost ratios with increasing years in operation. In some cases, such as the total of the consumer-goods or intermediate-goods industries, the ratios first increase and then decrease with increasing years of operation; in the case of the capital-goods industries, they go down first and then go up. The time pattern of the behaviour of the cost ratios of the individual industries is not very different, as is shown in Table XIII. If one compares the first and third age groups, only the cost ratios in the case of such

industries as bakery products, paints, varnishes and polishes, pharmaceuticals, rubber and rubber products, non-metallic mineral products, electrical machinery, transport equipment, made-up textiles, and miscellaneous industries, register a decline. This is not true for the rest of the industries, some of which suffer a rise in cost ratios with an increase in the number of years in operation.

The above analysis, therefore, does not appear to provide any satisfactory or conclusive answer to the problems of the behaviour of the cost ratios over time. Partly these comparisons are constrained because each industry group combines a large variety of products and activities whose cost behaviour over time may widely differ. An earlier analysis of the fifteen specific industries for which the cost ratios were reviewed by the Tariff Commission indicated an improvement in comparative efficiency in the course of ten to fiteen years. They covered about forty individual products. For seven industries and sixteen products, the cost ratios declined by 25 per cent to 60 per cent. The rest of the cost ratios declined by 5 per cent to 24 per cent [4, Table 3, p. 11].

An analysis of the cost ratios over time by itself may not provide an adequate test of the infant industry hypothesis. The cost ratios may turn unfavourable, even when there is an improvement in efficiency and productivity in the domestic industry because the costs of competing imports may fall faster as a result of a more rapid technological progress in the advanced countries. The problem is then one of the speed of technological advance in developed countries and a lag in the developing countries in the process of their "catching up". This suggests that a more detailed analysis of the changes in the productive efficiency of the domestic industries over time is necessary; this necessitates an identification of the changes in costs which are not due to *a)* changes in wage rates, *b)* profits, and *c)* input prices over time, since it is an improvement in efficiency in the use of inputs through a learning process, as distinct from technological advance, that is involved in the infant industry argument. The improvement in efficiency in this sense should be compared with the *c.i.f.* prices which would have prevailed in the absence of technological advance. The statistical testing of a comparative cost analysis in a dynamic context of technological change, thug, confronts formidable difficulties.

IV. COMPARATIVE COSTS AND OVERVALUATION OF EXCHANGE

The comparative cost ratios in the preceding paragraphs have been obtained on the basis of the official exchange rate. To the extent that the Pakistani currency is overvalued, of which there is some evidence, comparative cost ratios greater than one really reflect the overvaluation of currency so that with an equilibrium rate of exchange the cost ratios all will be equal to each other and equal to one. The Pakistani rupee was devalued in 1955 and the fall in the average cost ratio between the periods, *i.e.,* 1951-55 and 1956-60, may be partly traced to this fact, since with devaluation the *c.i.f.* price of imports in rupee went up.

One may, therefore, suggest that the comparative cost ratios should be corrected for the relative overvaluation of the currency. The study on the domestic prices of imports as well as analysis of the amount of subsidy implicit in the export bonus scheme tends to suggest that the assumption of a 50-per-cent overvaluation in the price of foreign exchange in Pakistan may be a reasonable one. it is not easy to estimate what would be the equilibrium rate of exchange in a free market with existing tariffs and domestic fiscal and monetary policies; supply and demand elasticities of exports and imports as well as that of demand and supply of domestic substitutes, *etc.,* enter into picture in a complicated way. The assumption of 50-per-cent overvaluation may not be far out of line for use as an illustration. The adjustment in the comparative costs ratio for alternative estimates of overvaluation of exchange is easily done.

As a result of the correction for the overvaluation of exchange, the comparative cost disadvantage declines and the number of industries, which have cost ratios below one and, therefore, are competitive, are as follows:

TABLE XI

Cost ratios	Number of industries			
	1951-55	1956-60	1961-66	Total
Below one	17 (0.84)	14 (0.73)	26 (0.83)	57
Above one	12 (1.33)	10 (1.27)	36 (1.50)	58

For the period as a whole, about half of the total number of industries appear to be competitive with imports while the other -half have higher cost ratios. The overall weighted cost ratios for the three periods after adjustment for the price of foreign exchange are 1.08 for 1951-55, 1.08 for 1956-60, and 1.21 for 1961-66. The weighted ratios for different groups of industries for the whole period are as follows:

Consumer goods	..	..	1.03
Intermediate goods	..	..	1.24
Capital goods	..	..	1.19

The consumer-goods industries appear competitive whereas the capital-goods industry is 19 per cent more expensive and intermediate-goods industry 24 per cent more expensive than the competing imports.

The correction of the cost ratios for the relative overvaluation of the currency, as shown above, is only partial insofar as it corrects the *c.i.f.* price of the competing imports in domestic currency and does not correct the import component of the domestic ex-factory price in domestic currency. The import component

becomes more expensive in terms of domestic currency consequent on a correction for the overvaluation of foreign exchange. The data on the foreign-exchange component of all the products are not available. In the case of only twenty-nine industries and their corresponding one hundred and seven products, the foreign-exchange component (current requirements of imported raw materials and spare parts) is available and the result of adjustment for the value of foreign exchange is given below:

TABLE XII

COST RATIOS ADJUSTED FOR OVERVALUATION OF EXCHANGE RATE

	Unadjusted	Adjusted	Adjusted only for *c.i.f.* price
Consumer goods	**2.29**	**1.66**	**1.53**
Intermediate goods	**1.82**	**1.45**	**1.20**
Capital goods	**1.79**	**1.33**	**1.33**
Average:	**1.86**	**1.44**	**1.24**

Thus, the cost ratio for ail industries declines from 1.86 to 1.44, *i.e.,* about 23 per cent. It is important to mention that after either adjustment for the value of foreign exchange, the ranking of the twenty-nine, or three broad categories of industries, does not change either in terms of the ex-factory price, or the foreign-exchange component of the ex-factory price, or the comparative cost ratios.

V. PROFITS, MARKET STRUCTURE AND EXCESS CAPACITY

One important aspect of the analysis of comparative cost ratios on the basis of ex-factory price is the extent to which the high ex-factory prices may be due to high profits or high factor prices in the relevant industries. If the factor costs do not represent scarcity prices but contain large monopoly or rent elements due to the institutional factors and the imperfections of markets, the high ex-factory price is not an index of comparative disadvantage or inefficiency but represents a transfer from the rest of the community to the factors employed in the industries concerned. The industrial wage for unskilled worker is generally presumed to be higher than the agricultural wage by more than what is accounted for by the costs of movement. Again, wage rate is higher in organised industries than in unorganised, small-scale industries. Even larger firms in the same industry are found to pay higher wage rates than the smaller firms. One could argue that the kinds of labour employed in a large- and small-scale industries, or in large and small firms in the same industry, are sufficiently different in terms of work, discipline and ability to account for the wage differentials. These are issues on which conclusive answers are neither available nor can they

be dealt with within the purview of the present paper. There is some evidence which, however, permits at least a partial examination of how far excess profits may have contributed to the high ex-factory price.

The cost ratios discussed earlier include mostly actual ex-factory prices which include abnormal profits, if any. In some cases, actual prices are not available and hence "fair" prices are used for estimating the comparative cost ratios. The 'fair' prices, barring adjustments in a few cases for selling, distribution, and overhead expenses, which are considered exhorbitant by the Tariff Commission, are different from the actual prices insofar as the latter incorporate abnormal profits. The concept of normal profits expressed in terms of "markup" over the cost of production, which the Commission considers fair and reasonable, has varied over the years. There are indications, however, in a number of reports that the markup premissible has increased over the years. Insofar as the actual percentage of profit on invested capital, which is allowed by the Commission in its estimation of fair price, is concerned, it is not always mentioned in its earlier reports. During the fifties, the percentage of profit allowed on invested capital appears to be in the neighbourhood of 10 per cent in those cases where such a mention has been made, whereas in the sixties, when the reference to the rate of profit is more frequent, it has increased by gradual stages over the years to 12.5 per cent (1963), 15 per cent (1964), 19 per cent (1965), and 20 per cent (1966).

There are about 39 industries for which data on both fair and actual prices are available; they indicate the prevalence of abnormal profits in the sense that in these industries the actual prices are higher than the fair prices to an extent varying between 8 per cent and 32 per cent [4, Table 7, p. 24], A few have been found to be suffering losses. It is pertinent to point out, however, that abnormal profits earned by the firms under consideration may in fact be larger than what is reported, and reported losses may be misleading insofar as the firms succeed in either misreporting their costs or, in the case of direct investigations by the Commission, succeed in avoiding a careful scrutiny of the detailed cost data. The valuation of the fixed assets on the basis of which the individual industries fix their actual rate of profit or the Commission fixes its fair rate of profit is in any case not an easy exercise. Thus, the comparative cost ratios given below based on fair ex-factory prices may still contain elements of excess profits which are not related to the comparative efficiency of the industries concerned with the result that the fair cost ratios may indeed be lower than what is indicated below:

TABLE XIII

COMPARATIVE COST RATIOS*

	1951-55		1956-60		1961-66		1951-66	
	Actual	Fair	Actual	Fair	Actual	Fair	Actual	Fair
Consumer goods	1.39 (19)	1.53 (36)	1.25 (15)	1.62 (10)	1.83 (45)	1.48 (11)	1.62 (79)	1.30 (67)
Intermediate goods	2.39 (2)	1.19 (3)	1.91 (2)	1.10 (2)	1.88 (82)	1.68 (76)	1.89 (86)	1.65 (81)
Capital goods	2.24 (12)	1.60 (27)	1.67 (30)	1.96 (14)	1.82 (34)	1.66 (12)	1.82 (76)	1.70 (53)
All goods:	1.76	1.61	1.55	1.76	1.85	1.66	1.78	1.62

***The figures in brackets relate to the number of products.**

The comparative cost ratios on the basis of fair ex-factory price are generally lower than those based on actual ex-factory price. The fair cost ratio in some instances, especially during the periods 1951-55 and 1956-60, is higher than the actual ratio. In some of these latter cases, of course, the firms may be making losses or the two sets of ratios may relate to the different commodities. During 1961-66, the sample of industries covered under each set of ratios is much larger and the commodities covered in the two types of ratios are more comparable. Over the whole period, 1951-66, the fair cost ratio is consistently below the actual cost ratio for all the three categories.

If allowance is made for the fact that actual profits, as reported by the Tariff Commission, probably underestimate "true" profits, the fair cost ratio, excluding excess profits, both recorded and unrecorded, would be even lower. The existence of very large profit margins, larger than 10-12 per cent over the cost of production and larger than 12-20 per cent over capital investment, is also indicated by the additional evidence which is available on the profitability of industrial enterprises in Pakistan. A recent study of the balance sheet of public limited companies, which are listed in the stock exchange, shows that between 1959 and 1963 gross profits as a percentage of capital employed varied between 14 and 15 per cent. This was during the period when normal profits, as allowed by the Commission, varied between 10-12 per cent [1]. This is also a very partial evidence and possibly is an underestimate.

Thus, if allowance is made for *a)* excess profits (to the extent of 10 per cent) and b) scarcity price of foreign exchange or the overvaluation of exchange rate (to the extent of 50 per cent), the aggregate comparative cost ratio is considerably reduced. Thus, the cost ratio will be reduced by a factor of 65 per cent, *i.e.,* all the products with the cost ratios which are 1.65 and below will become compe-

titive with the foreign product [1, p.21]-. The number of industries and products which have cost ratios below 1.50 and below 1.65 are given below. This generally indicates the change in the proportion of industries which become competitive when proper adjustments are made for the above two factors.

TABLE XIV

Year	Number of industries			Number of products		
	Below 1.50	Below 1.65	Total	Below 1.50	Below 1.65	Total
1951-55	17	21	29	49	68	99
1956-60	14	15	24	32	36	73
1961-66	26	32	62	57	87	179
	57	68	115	138	191	351

It appears that between 50 to 60 per cent of industries and between 40 to 54 per cent of the products become competitive as against about 10 per cent of the industries and 5 per cent of the products which are competitive in the absence of such adjustments.

An important question is to what extent the ranking of industries is affected by either an adjustment of foreign exchange or an adjustment for excess profits. A rank correlation between fair and actual price is found to be very high, *i.e.,* 0.68, and it is significant at 5-per-cent level. Similarly, the ranking of industries is undisturbed if cost ratios are adjusted for the overvaluation of foreign exchange. The rank correlation coefficient between unadjusted cost ratios and cost ratios adjusted for the overvaluation of exchange is very high, *i.e.,* 0.96, and is highly significant at the 5-per-cent level of significance.

The cost ratios may also be affected by the existence of excess capacity or a structure of market where few firms dominate. There is a considerable excess capacity in the manufacturing industries in Pakistan. About 60 per cent of the industries examined worked below 40 per cent of their installed capacity. The prevalence of excess capacity is not significantly different between the three categories of industries, as is shown below[9].

s'fhis estimate, however, does not make any adjustment for the foreign-exchange component of the domestic product which has the effect of raising the cost ratio. Making this double adjustment for overvaluation, where permitted by the data, would reduce the cost disadvantage by 23 per cent and then all industries with cost ratios of 1.33 and below would be made competitive.

("Excess capacity is defined as the difference between the actual output and the installed capacity, as assessed by the technical investigations of the Tariff Commission. The number of shifts implied in the assessment of installed capacity is not clearly indicated. The observations relating to excess capacity relate to different industries in different points of time.

TABLE XV

UTILIZATION OF CAPACITY IN MANUFACTURING INDUSTRIES

Percentage of capacity utilization	Consumer goods	Intermediate goods	Capital goods
	(percentage of total number of industries in each group)		
0-20	27.60	34.80	11.10
20-40	34.50	43.50	38.90
40-60	10.30	17.40	22.20
60-80	10.30	_	22.20
80-100	17.30	4.30	5.60

Most of the industries have only a few firms. In may instances, the number of firms is larger than justified by the limited extent of the domestic market. Since each produces at substantial excess capacity, a reduction in the number of firms would enable a concentration of output in a fewer firms, each producing at a fuller capacity.

The shortage of imported raw materials has been suggested as an important factor in explaining the existence of excess capacity. An attempt is made to see whether more import-intensive industries suffer from a greater excess capacity. No strong correlation is discernible. This is plausible in view of the licensing procedure under which the licensing is a function of the assessed import requirements and there may be in fact a bias towards a more liberal licensing for the import-intensive industries, especially if they are successful in the export markets. An analysis of excess capacity and reasons thereof, as well as the opportunities of cost reduction consequent on the utilization of capacity in the industries under investigation, has already been pointed out".

To what extent are high cost ratios due to the prevalence of excess capacity? While there is evidence that the cost of production declines with a greater utilization of capacity, it is difficult to quantify the reduction in costs in the absence of additional data. Moreover, even if costs decline consequent on a greater utilization of capacity, the behaviour of prices depends upon what happens in the meanwhile to a number of factors such as changes in demand and factor prices. It also depends upon the pricing policy of the industry, *i.e.,* whether it maximises profits or not, and upon whether the crucial limitation on the expansion of output is the limited market or the shortage of inputs.

io[4, pp. 25-26]. The ex-factory price of fifteen industries may be reduced anywhere between 8 per cent and 25 per cent, depending upon the nature of the industry.

The above argument relates to the price behaviour or changes in the comparative cost ratio of a given product under a changing utilization of capacity. Whether the differences in the comparative cost and price ratios of different industries are related to the differences in the degree of utilization of capacity is another matter and raises additional questions. The differences in the cost ratios between different industries are only partly a matter of differences in the utilization of capacity. An industry may operate at a smaller capacity than another but may still have lower cost ratio because it is more efficient in the use of its inputs even at a lower level of operations than the other at a higher level *vis-a-vis* its competing imports. Its managerial and technical efficiency may be higher: prices of the factors necessary in its operation maybe lower; and taxes on its inputs may be lower to offset the disadvantages of lower scale of operations. Thus, an attempt to explore the correlation between cost ratios and percentages of capacity utilization does not indicate any significant results. Nor do the profit rates (P) seem to to be related to the number of firms (N), as is seen below>>:

$$p = -0.096 - \underset{(0.00083)}{0.00098\ N} + \underset{(0.021)}{0.0228\ T} \cdot$$

$$R2 = 0.56$$

The excess profit, P, is defined as the difference between actual and normal price expressed as a ratio of actual price[2]. T stands for a dummy variable which is taken to be zero for all values of P which are negative (losses), and one for all values of P which are positive. The correlation is not significant and without the dummy variable, T, the relationship is still not significant, as is below:

$$P = 0.035 + \underset{(0.0012)}{0.0007\ N}$$

$$\mathbf{R2} = 0.0033$$

The relationship between excess profit (P) and capacity utilization (W) is as follows:

$$P = -0.088 - \underset{(0.00063)}{0.00079\ W} + \underset{(0.023)}{0.204\ T}$$

$$R2 = 0.57$$

where T is a dummy variable, as explained above, but without T the relationship is statistically significant.

$$P = 0.104 - \underset{(0.00081)}{0.0029\ W}$$

$$\mathbf{R2} = 0.14$$

HA11 the regression equations in the present study are as "weighted" equations in the sense that each variable is given a weight equal to the number of products it relates to.

i2Excess profit is used here in the sense of abnormal markup or the excess over the "normal" or fair markup on ex-factory price, as used by the Tariff Commission.

Excess profit seems to be negatively related with capacity utilization. That is, the greater the utilization of capacity, the lower is the excess profit as a percentage of actual ex-factory price. With a larger output, the firms tend to charge a lower profit margin since a lower profit margin on a larger output may still lead to large absolute profits and, more important, to a higher return on capital. But the magnitude of the fall in excess profit in response to a given change or increase in the utilization of excess capacity is very small, as is seen from the small magnitude of the correlation coefficient between excess profit and capacity utilization.

VI. COMPARATIVE COSTS AND FACTOR PROPORTIONS

There is a considerable diversity in the comparative costs of different industries, as analysed above. A relevant question is whether the comparative costs of different industries can be related to and explained by the diversity in the characteristics of these industries in respect of technology and factor proportions. It is expected that in a labour-abundant country like Pakistan more labour-intensive industries are likely to have lower cost ratios compared with the less labour-intensive industries. Data on labour costs as a proportion of ex-factory price are not available for all the industries under investigation. For a number of industries, data are available on direct labour costs and not on indirect labour costs which are part of the overhead cost, *i.e.,* administrative as well as selling and distribution expenses[13]. The regression equation relating the comparative cost ratios (Y) to the direct labour cost ratios (L) is shown below:

$$Y = 2.02 - 2.47\ L$$
$$(2.11)$$
$$R^2 = 0.019$$

$$\text{Log } Y = 0.252 - 0.154 \log L$$
$$(0.032)$$
$$R^2 = 0.18$$

The double logarithmic regression gives reliable regression coefficients. The correlation is not very high but the regression coefficient is negative and statistically significant at 5-per-cent level, implying a reliable relationship between variations in the labour cost ratio and in the comparative cost ratio. A 10-per-cent increase in labour cost ratio causes a decline in the comparative cost ratio to the extent of 1.5 per cent.

Attempts to correlate the comparative cost ratios to the capital-output ratios are limited by a lack of direct data on the capital-output ratios of the

13 [6], In this exercise the comparative cost ratios and the labour cost ratios of the individual products are not combined to arrive at the average ratios for each industry. This increases the number of observations which are conducive to a satisfactory statistical testing. There are differences, often significant, between the labour cost ratios of individual products in a given industry.

specific industries under investigation. The Censuses of Manufacturing Industries in Pakistan provide data on the fixed assets, employment, and wages and salaries by the major groups of industries. The comparative cost ratios which relate to specific individual industries may be grouped according to the classification of the major industry groups in the Census. The capital-output ratios of the major groups of industries are then related to the cost ratios of the groups of industries[14]. The capital-output ratios are available for 1959/60 and 1955. The former is related to the cost ratios for the period 1961-66 and 1956-60 and the latter to the period 1951-55, respectively. The regression equations relating the cost ratios (Y) to the capital-output ratios (K) are given below:

$$\text{Log } Y = 0.078 + \underset{(0.049)}{0.003 \log IC} \quad (1951\text{-}55)$$
$$R^2 = 0.0038$$

$$\text{Log } Y = 0.195 + \underset{(0.075)}{0.021 \log K} \quad (1956\text{-}60)$$
$$R^2 = 0.0092$$

$$\text{Log } Y = -1.175 + \underset{(0.0207)}{0.704 \log K} \quad (1961\text{-}66)$$
$$R^2 = 0.87$$

The cost ratios and the capital-output ratios are positively correlated for the period (1961-66) and the correlation is highly significant. The higher the capital-output ratio of an industry, the higher is its comparative cost ratio. The magnitude of the relationship is also high, implying a 7-per-cent rise in cost ratio in response to a 10-per-cent rise in capital-output ratio. However, for the other two periods, *i.e.,* 1956-60 and 1951-55, the relationship between cost ratio and capital-output ratio, though positive, is not significant. The simple linear relationships are less reliable than what is shown in the above logarithmic equations.

The above two exercises relating the cost ratios to the labour cost-output ratio and the capital-output ratio as possible explanations of the variability in the cost ratios between industries, tend to indicate that the industries which use

14[7], For each industry group, the cost ratio is the weighted average (weights being the number of products) — cost ratios of the individual industries included in the group. The weights are the number of products relevant to each cost ratio. This method of estimating the capital-output ratios for the industries under examination suffers from the limitation that in many groups of industries, the census contains a much wider variety of individual industries than is included in the present list of industries. Often the cost ratios relate to a small fragment of the major group of industry for which capital-output ratio is used. The limitation of the present set of data is added to the limitations of the data on fixed assets, as they are reported in the Census. They represent book values of fixed capital assets, depreciated by each industry following its own method of depreciation which does not necessarily reflect the physical life of the capital equipment. In addition, the depreciated book value does not indicate the cost of replacement and does not reflect the changes in the price of the equipment since the time of its acquisition.

more labour per unit of output and less capital per unit of output are more advantageously placed in respect of their comparative efficiency. Admittedly, the evidence on the effects of differences in the capital-output ratio is not very conclusive firstly because, in two of the three periods for which the hypothesis is tested, the regression coefficients are not significant and also because of the general limitations of the data on which the exercise is based.

A low capital-output ratio is consistent with a high capital-labour ratio. A more capital intensive product (a higher proportion of capital to labour) may result in a low capital-output ratio if capital is very productive in the sense that it raises the productivity of labour more than the increase in capital intensity. An attempt is made to relate the comparative cost ratios to the skill and capital intensities of the industries, *i.e.*, the relative proportion of skilled to unskilled labour and the proportion of capital to labour. Under the simplest of assumptions, one can hypothesise that the higher the ratio of wages and salaries per employee, the higher is the proportion of non-wage value added per employee, the higher is the proportion of capital to labour. This assumes that the differences in wage rate per employee between industries are entirely due to the differences in skill, and the labour of the same skill receives the same wage in different industries. Similarly, the assumption involved in treating the non-wage value added per employee as an index of a higher capital-labour ratio is that the return on capital is the same irrespective of the variation in the amount of capital used, and that the return on capital is the same as between different industries. Under constant returns to scale and perfectly competitive conditions, this is a correct assumption. The results of the following exercise have to be viewed in the context of the restrictive nature of the above assumptions.

In the following analysis, *a*) the wages and salaries per employee (T) and *b*) non-wage value added per employee (S) are related to the comparative cost ratios (Y) of different industries[15]. In all the periods, the simple linear relationships do not yield reliable results[16]. The double logarithmic relationships yield reliable

[15][2 ; 5]. The data on non-wage value added are subject to error in the sense that they include *a*) depreciation allowances, *b*) rent, and *c*) some miscellaneous expenses. As in the case of the exercise on capital-output ratios, these two ratios for the major groups of industries are obtained from the Censuses of Manufacturing Industries and are related to the combined comparative cost ratio of industries which fall in the same group but which, in some cases, cover only a small fragment of the major industry group or cover only a few selected individual industries. Moreover, the value added (wage and non-wage) ratios for 1955 are related to the cost ratios for the period 1951-55, and those for 1959/60 are related to the cost ratios of 1956-60 and 1961-66.

[16] 1951-55
$$\begin{cases} Y = 1.54 + 0.0008\ S \\ \qquad\qquad (0.0006) \\ \qquad\qquad R^2 = 0.020 \\ Y = 1.09 + 0.0053\ T \\ \qquad\qquad (0.0012) \\ \qquad\qquad R^2 = 0.15 \end{cases}$$

(*footnote continued on p. 231*)

results for all the periods except for wages and salaries per employee in 1961-66, asis seen below:

1951-55
$$\begin{cases} \text{Log } Y = 0.046 + 0.127 \log S \\ \qquad\qquad (0.037) \\ \qquad\qquad R^2 = 0.11 \\ \text{Log } Y = -0.452 + 0.327 \log T \\ \qquad\qquad (0.070) \\ \qquad\qquad R^2 = 0.18 \end{cases}$$

1956-60
$$\begin{cases} \text{Log } Y = 0.726 - 0.268 \log S \\ \qquad\qquad (0.042) \\ \qquad\qquad R^2 = 0.360 \\ \text{Log } Y = 5.216 - 2.575 \log T \\ \qquad\qquad (0.547) \\ \qquad\qquad R^2 = 0.244 \end{cases}$$

1961-66
$$\begin{cases} \text{Log } Y = 0.48 - 0.110 \log S \\ \qquad\qquad (0.030) \\ \qquad\qquad R^2 = 0.072 \\ \text{Log } Y = 0.291 - 0.022 \log T \\ \qquad\qquad (0.200) \\ \qquad\qquad R^2 = 0.0006 \end{cases}$$

The regression coefficients, except for T in 1961-66, are all significant at the 5-per-cent level. But the results for 1956-60 and 1961-66 contradict those for the period 1951-55. The data for 1951-55 indicate that the more skill-intensive and capital-intensive industries have higher cost ratios whereas the data for 1956-60 and 1961-66 indicate the reverse. The strength of the relationship in all the cases, as indicated by the correlation coefficient, is very small, *i.e.*, the coefficient of determination varies between 0.11 and 0.18 in 1951-55 and between 0.36 and 0.24 in 1956-60, and is 0.072 in 1961-66. Therefore, a very small proportion of the variance, or the variations in the interindustry comparative cost ratios, are explained by the variations in factor proportions in the sense defined here.

(*from p. 230*)

1956-60
$$\begin{cases} Y = 1.64 - 0.0003\ S \\ \qquad\qquad (0.0006) \\ \qquad\qquad R^2 = 0.0016 \\ Y = 1.68 - 0.0005\ T \\ \qquad\qquad (0.0008) \\ \qquad\qquad R^2 = 0.0053 \end{cases}$$

1961-66
$$\begin{cases} Y = 1.93 - 0.0008\ S \\ \qquad\qquad (0.0004) \\ \qquad\qquad R^2 = 0.0185 \\ Y = 1.92 - 0.0009\ T \\ \qquad\qquad (0.0013) \\ \qquad\qquad R^2 = 0.0020 \end{cases}$$

A more appropriate relationship to explain interindustry variations in the comparative cost ratios would be a joint or multiple relationship between the cost ratios and the differences in skill and capital intensities between the individual industries. A simple correlation does not reveal the joint influence on the comparative cost ratios and may even yield biased results. A multiple correlation yields a better result in terms of the explanation of the variance or the interindustry variations in the cost ratios, as given below:

1951-55 Log Y = — 0.424 + 0.284 log S + 0.030 log T
(0.098) (0.048)
R^2 = 0.185

1956-60 Log Y = — 0.356 — 0.415 log S + 0.679 log T
(0.045) (0.127)
R^2 = 0.548

1961-66 Log Y = — 0.132 — 0.217 log S + 0.403 log T
(0.046) (0.117)
R^2 = 0.111

The multiple correlations yield more reliable results and provide a better explanation of the variations in cost ratios. All the multiple correlation coefficients are much larger than the simple correlation coefficients obtained earlier, and are statistically significant at 5-per-cent level; all the regression coefficients excepting that of T (wages and salaries per employee) in 1951-55, are statisticaly significant at 5-per-cent level. Generally speaking, the skill-intensive industries, as indicated by the higher wages and salaries per employee, seem to have high cost ratios, except in 1951-55 when the coefficient is not reliable. This is also confirmed by one of the two simple regressions which yield reliable results. Again, excepting in 1951-55, the capital-intensive industries seem to be associated with the low cost ratios . This is also corroborated by the results of the simple regressions.

The earlier results indicate a significant positive correlation between cost ratios and the capital-output ratios for the periods 1956-60 and 1961-66, but not for 1951-55. This is consistent with a significant negative correlation between the cost ratios and the non-wage value added per employee which is yielded by both simple and multiple correlations in two of the three periods. An increase in the non-wage value added per employee implying a higher ratio of capital to labour may lead to a high productivity of capital and, thus, a decline in the capital-output ratio. The evidence on the positive relationship between wages and salaries per employee and cost ratio between the time periods is less conclusive insofar as the results of all the simple and multiple regressions are not consistent, even though multiple regressions, which yield a positive relationship, provide in general a better explanation of the relationships examined. While, as is seen earlier, on the one hand, a higher ratio of labour cost to output is associated with a low comparative cost ratio, higher wages and salaries per

employee, on the other hand, are associated with a higher cost ratio. This would imply that skill-intensive industries in the sense of a higher proportion of skilled to unskilled workers are associated with a lower ratio of labour cost to output. It is only when an increase in wages and salaries per employee is associated with a faster increase in output per employee that the labour cost per unit of output will decline with an increase in skill intensity. Thus, high labour cost-output ratio is associated with a low proportion of skilled to unskilled labour. This indicates that the industries with a low skill intensity but with a high proportion of labour costs to value of output are more competitive with imports from abroad. Though more skill-intensive industries have a lower labour cost per unit of output, their total costs and ex-factory prices *vis-a-vis* the prices of competing imports are higher than those of the less skill-intensive industries. The labour cost ratio, though it does not distinguish between unskilled and skilled labour, as used in this study, includes only direct labour and excludes the managerial labour and the labour component of the overhead and distribution expenses, which may include a higher proportion of skilled labour than is included in the category of direct labour cost. Moreover, while interpreting the interindustry variations in the comparative cost ratios with reference to wage and non-wage value added per employee, it is important to note that the use of these ratios as the indices of capital and skill intensities is subject to a number of limitations which have been discussed earlier. But subject to the limitations of data and methodology, the above analysis provides some evidence, though very tentative at this stage, that the industries with a high component of skill and with high capital-output ratio tend to have high comparative cost ratios. This seems to provide a confirmation of the commonsense view that technical skill is a very scarce factor and high priced in Pakistan at our present stage of development. Until a wide diffusion of technical knowledge and skill takes place consequent on increased investment in this direction, the industries which need high levels of skill will tend to suffer from high-cost disadvantages in relation to competing imports. Similarly, the limited evidence on the positive correlation between the capital-output ratio and the comparative cost ratio may be attributed to the learning costs associated with the use of capital in the early stage of development.

CONCLUSION

The manufacturing industries in Pakistan suffer, on the whole, from a high cost disadvantage *vis-a-vis* the competing imports. The weighted average cost ratios vary between 1.50 and 1.90, *i.e.,* the ex-factory prices are 50 to 90 per-cent higher than the *c.i.f.* prices. Thirty per cent of the industries examined in this study have ex-factory prices 51-100 per cent higher than their corresponding *c.i.f.* prices; about 16 per cent of the industries have prices 100-200 per cent higher than the *c.i.f.* prices [4, Table 2, p. 8]. This range of the comparative cost ratios compares well with those obtained from the earlier studies based on an analysis of the domestic prices of imported goods, allowing for the differences in the

methodology and commodity composition of the two studies. The tariffs do not seem to provide an appropriate measure of either absolute or relative cost disadvantage of the different industries in Pakistan. On the one hand, because of quantitative restrictions, there are positive scarcity margins over the landed costs of the competing imports for a great majority of the commodities examined here; on the other hand, there are many commodities for which the ex-factory price is below landed cost. For example, in 30 per cent of the cases, *actual* ex-factory prices, and in 40 per cent of the cases, *fair* ex-factory prices fell short of the landed costs. Positive scarcity margins usually vary between 30-50 per cent except in one year when it rose to 73 per cent. In those cases in which ex-factory prices fall below the landed costs of competing imports, they are as much as 25 to 30 per cent lower.

As is well known and is further corroborated by the present analysis, there is widespread underutilization of capacity, engendered partly by a lack of coordination between industrial investment licensing and the licensing of imports of raw materials and spare parts [4, footnote 18], Even though excess capacity contributes to high cost in a particular industry, there is no evidence that interindustry differences in cost ratios are explained by the differences in excess capacity which are substantial in almost all the industries any way.

High comparative cost ratios of the Pakistani industries, however, do not necessarily measure the inefficiency of industrialization in Pakistan to an equivalent extent, if allowance is made for *a)* an overvaluation of exchange rate and *b)* the existence of high or excessive profits in many industries generated by a lack of competition, either internal or external, in the domestic market. An adjustment of the *c.i.f.* price of the competing imports as well as of the foreign-exchange component of the ex-factory price, on the assumption of 50-per-cent overvaluation, in the case of a sample of twenty-nine industries and one hundred and seventy products, shows that the aggregative comparative cost ratio declines from 1.84 to 1.44, *i.e.,* by 23 per cent. If one adjusts only the *c.i.f.* price and not the foreign-exchange component of the ex-factory price, 50 per cent of the industries under examination become competitive. Again, if allowance is made for the fact that ex-factory price contains elements of excess profits, the comparative cost ratio will be further reduced by 10 to 11 per cent. When, however, both adjustments are made for overvaluation in the few cases when the data permit them to be done, the industries with the comparative cost ratio of 1.33 and below become competitive in the world market.

Insofar as the growth of the infant industries into adulthood is concerned, the evidence examined in this paper on this subject is quantitatively very small. The performance of only a few industries, about fifteen in all, has been reviewed by the Tariff Commission subsequent to the grant of protection by it. The evidence indicates an improvement in comparative advantage and a decline in cost ratios; an attempt to correlate the cost ratios with the length of the period of

operation of the corresponding industry groups does not provide any conclusive, systematic, and consistent evidence relating to the development of infant industries. While there are few cases of a fall in the cost ratios with an increase in the number of years of operation and an accumulation of experience, it is not true for all nor is there any evidence that the cost ratios are a smooth and a continuously declining function of a increase in the number of years of operation. A satisfactory examination of this problem is, however, inhibited by the limitation of the data.

Insofar as the differences in the comparative costs among the individual industries are concerned, the industries with a higher labour-output ratio have a greater comparative advantage. However, the gain in terms of comparative costs resulting from the choice of industries with a higher labour cost does not appear to be appreciable. At the same time, industries with a high component of skilled to unskilled labour tend to have high cost ratios, though the evidence on this is not conclusive. There is some evidence that industries with a high capital-output ratio have also high comparative cost ratio. Contrariwise, the industries which have higher non-wage value added per employee, *i.e.,* with a higher ratio of capital to labour tend, however, to have lower comparative cost ratios, implying that with a greater application of capital to labour, productivity of capital goes up, and cost disadvantage declines. However, it is necessary to point out that these conclusions are very tentative and need to be further verified on the basis of additional, more reliable, and comprehensive data and for different samples of industries and different years.

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Appendix A

A COMPARISON WITH EARLIER STUDIES

The comparative cost ratios, derived above, may be compared with the results of an earlier study which estimated the domestic prices of imports; domestic prices include tariffs, other indirect taxes, and scarcity margins on *c.i.f* prices of the imports [4, footnote 7] as a result of quantitative restrictions on imports. On the assumption that the imported and the domestic products closely competing with them fetch the same wholesale prices in the domestic products, the ratio between the *c.i.f* price and the domestic wholesale price, *i.e.,* (wholesale pricc/e././. price) is given below for the three main categories of commodities.

TABLE A-l

COST RATIOS BASED ON DOMESTIC PRICES OF IMPORTS : 1964/65

	Karachi		Chittagong		Average of Karachi and Chittagong price	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Consumer goods	**2.85**	**2.22**	**2.78**	**2.21**	**2.82**	**2.21**
Intermediate goods	**1.97**	**1.93**	**1.94**	**1.86**	**1.95**	**1.89**
Capita! goods	**2.42**	**2.73**	**2.36**	**2.05**	**2.40**	**2.39**

A comparison made between the cost ratios derived from the present study and those derived from the study of domestic prices of imports is given below. The import study relates to they ear 1964/65 and, hence, its findings should appropriately be compared with the cost ratios of the period 1951-66; the cost ratios for the whole period 1951-66 are also given below:

TABLE A-2

COST RATIOS

	Present study			Import study	
	With indirect tax unweighted	With indirect tax unweighted	With indirect tax weighted	Unweighted	Weighted
	1951-66	1961-66	1961-66	1964/65	
Consumer goods	1-79	2.06	1.87	2.82	2.21
Intermediate goods	2.03	2.08	2.10	1.95	1.89
Capital goods	1 89	2.10	2.05	2.40	2.39
Average:		2.09	2.02	2.38	2.21

The average cost ratios (weighted and unweighted) for all commodities, as obtained from the import study, are generally higher than the cost ratio derived from the direct comparison of ex-factory prices (including taxes) and *c.i.f.* prices. However, when the commodities are grouped into three categories, the ratios for consumer and capital goods appear to be distinctly higher in the case of import study than in the present study whereas the ratios for intermediate goods are lower in the import study than in the present study. The critical assumption for the use of the domestic prices of imported products to represent comparative cost ratios for the domestic industries is that the ex-factory price is equal to the domestic price of their competitive imports. This assumption may not hold for a number of reasons. In the first place, an industry may no longer be an "infant industry" and may have developed competitive efficiency in which case the domestic price, therefore, falls below the import price plus tariffs and scarcity margins. Tariffs, therefore, become redundant. Secondly, the domestic prices of imports may be higher than the ex-factory prices of domestic competing goods because of consumers' preferences for the imported products. In the extreme case, one can conceive of a highly differentiated market for import goods catering to a special clientele. This is especially true for commodities which are the products of international firms and are noticeable in the field of luxury items of consumer goods as well as in the case of drugs and pharmaceuticals and chemicals, *etc.* Thirdly, the domestic producers may not charge the maximum scarcity price which the comparable and competing imported products may fetch in the market, even though there are only a few domestic producers. Various considerations which induce monopolistic producers not to maximise short-run profits but to take into account various long-run factors affecting their profits may induce the domestic producers not to exploit the domestic scarcity to the maximum. Moreover, the comparison of the results of the present study

with those of import study is also inhibited by the fact that the commodities in the two studies are not all comparable. The earlier study includes a number of imported commodities for which no domestic production exists. Hence, their domestic prices cannot be said to represent what would have been the prices if the commodity is domestically produced, since tariffs and import controls in these cases bear no relation to the need for protecting an existing domestic industry.

In order to obviate this difficulty, an attempt, has been made to select a few specific items which are common to both the studies.

TABLE A-3

COST RATIOS OF SELECTED ITEMS

	1964 impoi-t	Import study with mark-up, 1964/65	1964/65 without markup	Present study (with taxes)	Year
Free-List Items					
Nylon twine and monofilament		1.92	1.72	1.97	1965
Caustic soda	2.72	1.73	1.55	2.34	1964
Sodium bicarbonate	2.15	2.17	1.94	1.90	1965
Soda ash	2.73	2.19	1.95	2.32	1966
Acetic acid	2.48	1.73	1.54	1.89	1966
Cement		2.45	2.19	1.67	1965
G.I. pipe	2.24	1.53	1.36	2.21	1963
Brass sheet		1.65	1.47	1.50i	1962
Aluminium sheet		1.62	1.44	1.93	1965
Licensed Items					
Wheat flour		1.39	1.24	1.32b	1962
Safety razor blade	3.27	3.20	2.85	1.24	1964
Electric lamp	2.20	1.98	1.76	1.64	1964
Leather belting		1.98	1,77	1.31	1962
Electric meter		1.96	1.75	2.93	1963
Transformer		2.66	2.38	1.44	1963
Batteries		2.35	2.09	3.02	1965
Bonus Items					
Sugar	2.90	2.89	2.58	4.55	1966
Bicycle	2.74	3.33	2.97	1.84	1963
Simple Average:		2.12	1.92	2.05	

"Brass ingots and strips.
''Wheat flakes, *etc.*

It appears from the above that the unweighted simple average cost ratios for the selected items, which are comparable as between the two studies, are about the same, *c.i.f.* 2.12 and 2.05, respectively. The domestic wholesale prices which constitute the basis of the cost ratios in the import study include the normal profit margin of the wholesaler whereas the ex-factory prices which are the basis of the cost ratios in the present study do not include this element, excepting where the producing firm is itself the wholesaler. The indirect evidence suggests that this normal markup may be about 12 per cent. The unweighted average cost ratio after deducting the 12 per cent markup for all the items listed above comes to about 1.92, as against 2.05 in the present study.

The average ratios conceal significant differences between the individual cost ratios. If we assume that the *c.i.f.* prices of a commodity are the same in both the studies, the differences in cost ratios indicate the differences between the ex-factory prices of the domestic products and the wholesale prices (with and without markup) of the competing imports. Thus, on this assumption, the ex-factory prices of caustic soda, electric meter, G. I. pipe, batteries, and sugar appear significantly higher than the domestic prices of competing imports. This may imply that the above mentioned industries are underprotected and that the domestic and imported items sell at different prices. In the case of cement, safety razor blade, transformer, and bicycle, the relative position is reversed with domestic prices being lower than the prices of competing products. In these cases, it is probable that importers do not charge the maximum price that the market will bear. In the case of the rest of the items, cost ratios are comparable.

Appendix B

TABLE B-1

THE COVERAGE OF THE PRESENT STUDY*

Industry	No. of establishments 1959/60 Census	No. of establishments covered in this analysis
Food manufacturing ..	460	112
Alcoholic beverages ..	4	1
Silk and artificial silk ..	233	2
Manufacture of textiles, *n.e.c.* ..	57	8
Footwear ..	101	(number not known but very large including both small- and large-scale industries)
Paper and paper products ..	27	6
Rubber and rubber products ..	36	8
Chemicals		
Basic industrial chemicals ..	42	29
Paints and varnishes ..	36	42 (including small-scale)
Medicines and pharmaceuticals ..	63	184 -do-
Perfumes, cosmetics and soaps ..	80	(includes only soap and number is large including small-scale)
Matches ..	20	19
Non-metallic minerals ..	83	—
Glass and glass products ..	29	2
Concrete products and non-metallic mineral products, *n.e.c.*	39	100 (including small-scale)
Manufacture of basic metals ..	96	31

(*Contd.*)

*[13, Pp. 1095-1098].

TABLE B-l—(C<w/rf.)

Industry	No. of establishments 1959/60 Census	No. of establishments covered in this analysis
Metallic products	**467**	
Healing, cooking, lighting apparatus	**27**	**5**
Cutlery		**4**
Utensils	**132**	**57**
Safes, vaults and trunks	**13**	**37**
Metal products, *n.e.c.*	**99**	**7**
Machinery, non-electrical	*211*	
Engines and turbines	**.19**	**103**
		(including small-scale)
Textile machinery and accessories	**39**	**27**
Pumps **and compressors**	**11**	2
Electrical machinery	**104**	**38**
Manufacture of trausport equipment	118	6
Manufacture of plastic products	**56**	218
Manufacture of pens and pencils and related products	**23**	**(including small-scale)**
Miscellaneous manufacturing industries	**57**	**3**
		60

Tariff Protection, Import Substitution and Investment Efficiency

Ronald Soligo and Joseph J. Stern

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Tariff Protection, Import Substitution and Investment Efficiency

Ronald Soligo and Joseph J. Stem

"...The import substitution effort will have to be intensified, particularly in capital goods and intermediate products, like base metals, chemicals, petroleum products and non-metallic minerals'.. .The scarcity price of foreign exchange should be appropriately reflected to the economy so that there is an incentive to use less foreign exchange and more domestic resources. This will call for a revision in the present tariff policy... [11, p. 35],

".. .The second important element in the [balance of payments] strategy is to develop an import pattern which will encourage savings and investment and extend the import subsitution effort to a much wider front" [11, p. 79],

I. INTRODUCTION

A chronic deficit in the balance of payments is a problem which plagues almost all developing countries. In Pakistan, as in other countries, the development plans have contained a two-pronged approach to the problem: to increase exports and to reduce the need to import through a process of import substitution. Exports have been encouraged by giving numerous concessions and

subsidies to the exporting firms[1] but the best known and most successful of the export-promotion schemes is the bonus-voucher system[2].

Industrialization has been pursued behind a wall of tariffs and import licensing which have provided generous incentives for the establishment in Pakistan of import-substituting industries. Within this framework of high protection to domestic industries and stiff barriers to foreign competition, manufacturing industries in Pakistan have indeed grown at a rapid rate [6; 13]. Pakistan's *Third Five Year Plan* [11] has taken cognizance of the need to develop and extend the import-substitution effort and, what is more, to use tariff policies to achieve this end.

The impressive gains which have taken place in industrialization under the protection of tariffs and licences, have always been used to justify the tariff policy. Yet the complexities of the economic system are such that what appears to be beneficial may, when looked at from the view-point of the whole economy, be less of a gain than one is led to believe at first, and may even be a loss to the economy. The purpose of this study is to examine, in light of the available data, the effects of past protection on the efficiency of investment allocation and to make some estimate of the implicit protection given to domestic industries by the present tariff structure in the absence of quantitative controls.

As is pointed out in Section II, the present tariff structure may have been inoperative in the past because of other trade barriers. But with sufficiently increased liberalization of imports, it could become a major variable in determining the pattern of resource allocation in the future. Given the obvious need for import substitution, if the target for reducing dependence on foreign aid is to be realized, and the role that tariff policy must play in this effort, there can be no doubt that a serious effort to understand the full implications of the present tariff policy is warranted.

II. BACKGROUND TO THE PROBLEM

Two factors make import substitution an extremely attractive development strategy. First, a policy of encouraging import-substituting industries will produce results quickly since it permits indigenous entrepreneurs to exploit existing markets rather than forcing them to develop new markets for domestically produced goods. Second, import substitution makes an obvious and direct effort to save foreign exchange by substituting imports of raw materials for final manufactures while simultaneously increasing domestic value added.

[1] For a detailed description of the export-promotion schemes which have been pursued in Pakistan since Partition, *see* [2].

[2] For a description and analysis of the bonus-voucher scheme, see [I J.

For a number of reasons, a policy of import substitution often favours the development of consumer-goods-oriented industries. First, the markets which exist in developing economies are primarily for consumer goods. There being little or no indigenous manufacturing initially, the market for intermediate or capital goods is small or non-existent. Second, consumer-goods industries, by and large, require less capital investment than other industries, and often less skilled manpower — two factors which tend to be scarce in underdeveloped economies. Finally, in order to raise revenue for the public treasury and/or to economise on scarce foreign exchange by discouraging 'non-essential' imports, developing countries generally levy high import duties on consumer goods. Equivalent taxes are not usually levied on domestically produced consumer goods because such taxes would conflict with the policy of providing encouragement for domestic industries over imports. Domestic industry requires, at least initially, a subsidy to overcome lack of experience and capital. Such a subsidy is usually given in the form of high tariffs on competing imports with low taxes on domestic output and low tariffs on imported capital and industrial inputs.

It has been pointed out, first by Power [14] and Khan [4] and more recently by Radhu [15] that Pakistan's tariff structure has indeed given substantially more protection to consumer 'non-essential' industries than to intermediate and capital-goods industries. However, Lewis and Qureshi [5], and also Radhu [15], have argued that the relative profitability of investment in different industries is affected as much by other government policies such as import licensing and the export-bonus scheme as by indirect taxes, and that these other factors have probably outweighed the tariff-created profit differentials. Lewis and Soligo [6] have more recently analysed the available data on the production, imports, and exports of manufactured goods and have concluded that over the period 1954/55 to 1963/64, import substitution has been equally important in both consumer goods and investment-and related-goods industries. In terms of percentage rates of growth, investment and related-goods industries have grown faster than both intermediate-and consumer-goods industries. Intermediate-goods industries have apparently grown more rapidly than consumer-goods industries.

While the work done by Lewis and Soligo [6] shows that import substitution and growth of output have taken place more or less equally in consumer, intermediate and capital-goods industries, the question still remains: has import substitution proceeded too far in consumer-goods industries ? Has Pakistan used her scarce capital efficiently ?

Power [14] and Khan [4] have argued that import substitution in consumer goods is not always a good thing. So long as consumer goods must be imported, the extreme scarcity of foreign exchange acts as an effective constraint to the expansion of consumption. Once consumer-goods industries have been established domestically, the discipline enforced by the supply of foreign exchange is to some extent removed. As the indigenous production of consumer

goods increases, consumption is 'liberalized' and savings do not increase as quickly as tliey otherwise might, Ultimately, the rate of growth in real income will be lower when import substitution in consumer goods is permitted.

A second possible danger of import substitution is pointed out by Johnson [3] who notes that:

> .... the excess cost of import substitution may be high, appreciably higher than is implied by the tariff rates or the excess of domestic over foreign prices. Progressive import substitution could therefore easily absorb or more than absorb the potential increase in real income that would normally accrue from technical improvements and capital accumulation, and permit a country to accumulate capital at a substantial rate without achieving a significant increase in real income or in real income per head.

Import substitution, insofar as it departs from the principal of comparative advantage, may saddle a country with high cost industries which can only survive behind a high protective wall. In fact, these industries may turn out to be so inefficient that the amount of protection that has to be provided to them is greater than their contribution in terms of value added.

In order to examine the issue raised by Johnson we must compute the implicit subsidy given to manufacturing industries in Pakistan by means of the tariff structure. As a country's tariff structure normally extends protection to intermediate products and raw materials as well as to final goods, the tariff acts as both a subsidy and a tax on domestic production. The tariff on competing imports of an industry allows the producer to raise the price of his product and in this respect the tariff is a subsidy to domestic production. On the other hand, the tariff on competing intermediate and raw-material inputs allows the domestic suppliers of such products to raise their prices and in this sense the tariff is a tax on domestic production. The implicit subsidy is the amount of protection a producer gets from the tariff structure after allowing for the fact that tariffs act as both a subsidy and tax on domestic production. The residual obtained by subtracting this subsidy from the current value added in the industry measures the value added (the amount which could be paid to the domestic factors of production) if tariff protection were removed and assuming that foreign exchange was valued at its real opportunity cost.

If the new value added, computed in the above manner, is less than what would be neccssary to pay capital and labour inputs their real scarcity price, we may conclude, excepting those cases in which the 'infant' industry argument is applicable, that investment in that particular industry is inefficient, at least at the margin. Real income could, therefore, be increased by transferring iv sources from this industry to some other industry where factors of production are receiving their scarcity price.

As we point out in Section III, the above exercise is only correct under certain assumptions about the relationship of domestic prices to foreign prices. While these simplifying assumptions do not in fact hold for Pakistan, our results are such that, together with what information is available about the divergence of reality from our assumptions, we can draw some revealing and interesting conclusions regarding the efficiency of past allocation of capital and of the relative rates of protection to domestic value added inherent in the present tariff structure.

III. METHODOLOGICAL FRAMEWORK AND SOURCES OF DATA

As we have pointed out in the previous section, the purpose of this paper is to examine the available data from the viewpoint of drawing some conclusions about the efficiency of past investment and to evaluate the bias inherent in the present tariff structure as measured by the implicit subsidy given to domestic value added. Because of the disequilibrium in the market for foreign exchange and the distortion which results from import licensing, it is not possible to deal definitely with the issues we have raised. In order to show clearly what can be said about investment efficiency and tariff protection with the data at hand, we first analyse the data within the framework of a simplified model which embodies several restrictive assumptions. We then discuss what effect the relaxation of these assumptions will have on our results.

In what follows, we first develop a simplified model and then analytically relax the assumptions. This exercise will clarify the difference between what we would like to measure and what in fact we can measure with our data. In Section IV, where we present our results, we discuss what the relaxation of the assumptions would mean with respect to the data we have used.

What we wish to measure is the implicit subsidy which would be given to domestic industry as a result of tariffs, where in fact the tariff structure is a determinant of relative domestic prices. Under such conditions, the subsidy is measured for each industry by taking the difference between what domestic factors of production receive in that industry with the given tariff structure (*i.e.*, value added with the tariff structure) and what these same factors *could* be paid if the industry was required to operate within a framework of free trade, that is, where output was sold at 'world' prices and, similarly, inputs were purchased at 'world' prices.

Suppose the input-output structure for the i-*th* manufacturing industry is given by:

$$X_i = \sum_{J=1}^{n} X_{ji} + W_i \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where: X_i = gross value of output in domestic prices of i-*th* industry at *factor cost*

X_{ji} = total deliveries from industry j to industry i measured in domestic prices

W_i = value added in domestic prices of i-*th* industry.

In order to measure the difference between actual value added, W_i, and what would be paid to domestic factors in the absence of trade barriers, we make two simplifying assumptions:

i) that the official exchange rate reflects the scarcity price of foreign exchange; and

ii) that the domestic price of any commodity is equal to the world price of a competing import plus domestic taxes on imports. That is,

$$P_{di} = P_{wi}(1 + t_i) \quad \ldots\ldots(2)$$

where P_{di} = the domestic price for commodity i;

P_{wi} = the 'world' price for commodity i, converted at the official exchange rate; and

t_i = the tariff rate on commodity i.

We define

$$V_i = Y_i - \sum_{j=1}^{n} Y_{ji} \quad \ldots\ldots(3)$$

where Y_i = the gross value of output of industry i at 'world' prices;

Y_{ji} = the value of the interindustry deliveries from industry j to industry i, expressed in 'world' prices;

V_i = measures the amount which could be paid to domestic factors of production in industry i if the output were sold, and inputs purchased, at 'world' prices, all converted at the official rate of exchange.

Using assumptions *i*) and *ii*), we have the following relationship between the variables in Equations (1) and (3):

$$X_i = Y_i(1 + t_i) \quad \ldots\ldots(4)$$

$$X_{ji} = Y_{ji}(1 + t_j)$$

Substituting (4) into (3), we have:

$$V_i = \frac{X_i}{(1 + t_i)} - \sum_{j=1} \frac{X_{ji}}{(1 + t_j)} \quad \ldots\ldots(5)$$

It should be noted that V_i does not measure the amount which could be paid to domestic factors of production after all trade barriers were eliminated

and the economy were permitted to find a new equilibrium position in terms of the exchange rate, relative prices, and so on. Rather, V_i measures the payments to domestic factors which would be possible, given the existing technology, as represented by the input-output coefficients, and the existing opportunity price of foreign exchange. This concept of V_i is the appropriate one, since we wish to determine the relative efficiency of domestic industries with the present technology and exchange rate.

The subsidy implicit in the tariff structure would then be given by:

$$W_i - V_i \quad \ldots\ldots(6)$$

To make interindustry comparisons, one should compare the absolute subsidy as measured by Equation (6) with total value added. Hence, we define:

$$U_i = \frac{W_i - V_i}{W_i} \quad \ldots\ldots(7)$$

where U_i measures the proportion of domestic value added in current domestic prices which is subsidized by the tariff structure and, in this sense, is a measurement of the implicit rate of protection, given to domestic value added by the tariff structure.

Equations (5) through (7) would permit us to evaluate the impact of the tariff structure provided the assumptions made above are correct. Unfortunately, assumptions *i*) and *ii*) are not valid for Pakistan. It is well known and has been demonstrated by Pal [12] that at the official rate of exchange there exists a scarcity margin on imports. That is to say, the present official exchange rate overvalues the rupee. Because of excess demand for foreign exchange at the official exchange rate, the available foreign exchange is allocated by means of import licensing[3] with the result that the scarcity margin for imports and competing domestic output will be different for each commodity.

Very little is known about the scarcity margin aside from Pal's study. He found that the margin did vary from commodity to commodity but, on the average, the scarcity margin on consumer goods was the same as on investment goods. Pal was concerned only with prices of imported goods and, hence, his study throws no light on those cases where the import taxes are so high that competing imports are completely absent from the market. It those cases, or where there is an outright embargo on imports, the domestic price could well be below the *c.i.f.* price plus import tariffs. Unfortunately, there is no information to either support or refute this proposition. We are, however, inclined to believe that there is likely to be excess demand in all commodity markets and, that as a *minimum*, domestic price does equal *c.i.f.* price and import

[3] *See*, Naqvi [7] for a description of the import licensing system.

taxes. That is to say that *at best* the scarcity margin is zero. This assumption is maintained throughout what follows.

How would the relaxation of assumptions *i*) and *ii*) affect the results computed from Equations (5) to (7)? First, let us assume that although there is disequilibrium in the foreign-exchange market, the scarcity premium is equal for all commodities. Such a situation would arise if foreign exchange were auctioned and no controls were imposed on the composition of imports.

If this were the case, the V_i, computed by Equations (5) to (7), would represent V_i at the true scarcity price of foreign exchange and *not* at the official rate of exchange. This would still be the appropriate measure of V_i since it measures V_i at the current opportunity cost of foreign exchange. Similarly, U_i, computed from this V_i, would be the 'correct' measure of the implicit protection, given to domestic value added by the tariff structure. If one wished to measure the rate of protection given by both the tariff *and* the overvalued exchange rate then one should deflate V_i by the extent of overvaluation. Suppose that S is the scarcity margin, then this would change Equation (5) to

$$V_i' = \frac{X_i}{(1+t_i)(1+S)} - \sum_{j=1}^{n} \frac{X_{ji}}{(1+t_j)(1+S)} = \frac{V_i}{(1+S)} \quad \ldots\ldots\ldots\ldots\ldots\ldots (5')$$

and Equation (7) to:

$$U_i' = \frac{W_i - V_i'}{W_i} = \frac{W_i - \left[\dfrac{V_i}{(1+S)}\right]}{W_i} \quad \ldots\ldots\ldots\ldots\ldots\ldots (7'')$$

The extent of the subsidy involved, and hence the absolute value of U_i, is a function of the scarcity margin. However, if S is equal for all industries, the ranking of the industries by U_i is not affected by the value of the scarcity margin.

Let us now assume, as is in fact the case, that the scarcity margin is different for each commodity. Calculating V_i from Equation (5) now gives the amount which could be paid to domestic factors of production taking into account the vector of scarcity prices of foreign exchange which prevail. That is, V_i would measure the amount which could be paid to domestic factors under a multiple-exchange-rate system where the exchange rate for each commodity is equal to the present official exchange rate plus the scarcity margin on that commodity.

The amount which could be paid to domestic factors at the current official exchange rate, if both tariffs and licensing protection were withdrawn, would be:

$$V'' = \frac{X_i}{(4+t_j)(1+S_i)} - \sum_{=1}^{n} \frac{X_{ij}}{(1+t_j)(1+S_j)} \quad \ldots\ldots\ldots\ldots\ldots\ldots (5'')$$

where Si and Sj are the scarcity margins on the *i-tlx* and j-th commodity, respectively.

In what follows we have computed Vi and Ut using Equation (5), and on this basis draw some conclusions about the relative ranking of Vi and Uj as if they had been calculated by Equation (5").

We feel that there is some justification for making the jump from Equation (5) to Equation (5") because *a)* the data we use give imported inputs at *c.i.f.* prices. This means that for these intermediate inputs we do not need to know either t j or Sj to compute their value at world prices (at the official rate of exchange); and b) domestic intermediate deliveries are predominantly either commodities which are also exported, such as raw cotton and jute, and for which the scarcity margin is zero, or services which cannot be traded in the international markets and, hence, for which 'world' prices are irrelevant,

The net result of *a)* and *b)* is that the proportion of intermediate inputs for which we need to know the value of the scarcity margin is small and that the bias in the value of Vi and Ui; computed on the basis of Equation (5), is primarily determined by Si, the scarcity margin on the output of the industry. Since Pal [12] shows that as a group the scarcity margin is the same for consumer goods and investment goods, our comparison of these two groups of industries, using Ui, is reasonable. Within groups, the ranking of industries on the basis of the computed Vi and Ui will differ from the 'true' ranking, that is to say the ranking which we would derive from our results if we had all the required data, depending on the extent to which the scarcity margins on the output of these industries differ.

Data on the interindustry relationships in Pakistan are available from the Tims-Stern input-output table[4] prepared for the Planning Commission [10]. Explicit rates of tariff, ti and tj, have been derived from [15]. These estimates were modified in the following way[5]. First, Radhu's estimates are simple arithmetic averages of duties for all commodities within a group. Rather than to accept these broad averages, we have *i)* in the case of outputs taken the duties on only those commodities which are actually produced in Pakistan, and *ii)* in the case of intermediate inputs, we have taken the rates of duty only on the specific inputs used in any given industry. Rates of duty on specific commodities have been taken from [9], while detailed information on the composition of outputs and inputs for each industry is available from [8]. Secondly,

The framework of the Tims-Stern input-output table and the equation used *to* calculate the results are shown in the Appendix.

[5]We wish to express our appreciation to Mr. Ghulam Mohammad Radhu for assisting us in revising some of the average rates of duty and for guiding us through all the manifold intricacies pf the indirect tax structure. Although we have tried to take account of all the duties and taxes, inclusions and exclusions, the responsibility for any remaining errors rests exclusively with the authors.

Radhu's estimates include sales taxes in addition to import tariffs. Since we are working with output at factor cost, we have added the sales taxes only in those cases where domestic production is exempted from them. In those cases, the sales tax acts as additional tariff protection since it is levied only on competing imports. Finally, Radhu's data deal with the tariff structure as of '962/63. We have incorporated the few changes in import duties and sales taxes which have become effective in '963/64.

IV. ESTIMATES OF TARIFF PROTECTION AFFORDED TO VALUE ADDED

In this section, we discuss the significance of our computed Ui coefficients, compare them to other variables and parameters, and suggest some possible qualifications of our results.

We have computed Uf (the ratio of net subsidy from tariffs to value added) for some forty-eight manufacturing industries. These are shown in Table I.

In three industries, grain milling, rice milling, and printing and publishing, the protection given to value added is negative, or, what is the same thing, the *net* effect of the tariff structure is to tax the output of these industries. This is not surprising in view of the fact that in all three cases the explicit rate of tariff protection given to the output of the industry is zero while tariffs are levied on inputs used in these industries.

In all other cases, Ui is greater than zero; that is, the rate of tariff on output is sufficiently high to more than offset the addition to cost which arises from the protection given to the suppliers of inputs. For these industries, the net effect of the tariff structure is to subsidize their value added; to permit them to pay a higher return to labour and capital than they would be able to pay if exposed to unfettered world competition.

There are considerable interindustry differences in the rates of protection given to value added. In general: *i)* consumer goods are much more heavily protected than either intermediate or investment and related goods; *ii)* within the consumer-goods industries, nonessentials, such as beverages and cigarettes, are much more heavily protected than essential industries such as grain and rice milling, salt and tea; *iii)* textiles are the most heavily protected group of industries, although the protection is approximately the same for all components of the group; and /V) the least protected industries are those producing heavy machinery, both electrical and nonelectrical, and transport equipment other than motor vehicles and cycles. Fertilizer is also among the least protected group.

In twenty-three industries, the coefficient Ui is greater than unity. For these industries, the net subsidy received through tariff protection exceeds the

TABLE I

IMPLICIT RATE OF PROTECTION OF VALUE ADDED

Consumer goods	Ui	Intermediate goods	Ui
Food, beverages and tobacco		Jute textiles	1.52
		Dyeing and finishing	1.38
Canning and preserving	3.11	Thread and threadball	1.45
Grain milling	—0.27	Saw milling	1.52
Rice milling	—0.10	Tanning	2.11
Bakery product	1.21	Rubber products	0.81
Sugar	1.15	Fertilizers	0.18
Edible oils and fats	2.02	Paints and varnishes	0.46
Tea	0.45	Pharm., and chem., *n.e.c.*	0.33
Salt	0.78	Petroleum and coal products	1.01
Beverages (non-alcoholic)	1.08	Paper products	0.59
Cigarettes	1.30		
Textiles, wearing apparel and footwear		Investment and related goods	
		Metal furniture	2.53
Cotton textiles	1.52	Non-metallic products	0.46
Woollen textiles	1.46	Cement	0.58
Silk and art silk	1.41	Basic metals	0.58
Knitting	1.30	Metal products	0.98
Footwear	1.04	Nonelectrical machinery	0.11
Wearing apparel	2.17	Sewing machinery	0.78
		Electrical appliances	0.67
Other consumable goods		Electrical machinery	0.25
		Other transp.	0.33
Wood products (furniture)	1.84	Motor vehicles	3.96
Printing and publishing	—0.15	Cycles	1.61
Leather goods	1.12		
Soaps, perfumes and cosmetics	0.64		
Matches	0.92		
Optical goods	0.31		
Plastic goods	0.77		
Sports goods	0.48		
Pencils and pens	0.39		

total value added! These results are surprising particularly because these industries are *i)* primarily consumer-goods industries, and *ii)* include very large industries (in terms of value added) such as cotton and jute textiles, sugar, tobacco, and coal and petroleum products.

What is the meaning of U_i greater than unity ? From our definition of U_i, it is readily apparent that $U_i > 1$ implies that V_i is negative. From Equation y) we have:

$$U_i = \frac{W_i - V_i}{W_i}$$

or

$$U_i = 1 - \frac{V_i}{W_i}$$

V_i measures the amount which could be paid to capital and labour if output was sold and those inputs which can be traded were purchased at 'world' prices when converted at the official rate of exchange. A negative V_i means that the total cost of intermediate inputs valued at their 'world' prices, or at their domestic price, if they cannot be traded[6], exceeds the value of output when expressed in 'world' prices. Vi could then be negative for two reasons: i) intermediate inputs are used more inefficiently in Pakistan than in other countries. There may be more wastage of raw materials and services in Pakistan due to poor maintenance of machinery, inefficient quality control or lack of alternative uses for scrap, waste and some by-products because transport costs may be too high.to permit these to be disposed off profitably, *ii)* The price of domestically produced services, which cannot be imported, may be higher than the price of similar services in other countries. Electricity and motorized transport are two particular examples where cost per unit output is probably higher than in other countries[7]. If this be so, then our conclusions would indicate that Pakistan should not invest in those industries which are intensive users of these inputs.

Whatever factors are the cause, a negative V_i is nevertheless surprising for it is equivalent to saying that the average revenue product of capital and labour is negative.

6We assume that at the given supply, the current domestic price of these inputs is equal to their scarcity price.

7At least this is often alleged to be the case by industrialists. An international comparison of these costs, although not within the scope of this paper, would be extremely interesting and would throw considerable light on our findings. Although we have not attempted to make any international comparisons, we have made an interindustry comparison of these costs. The rank correlation coefficient between Ui and the cost of electricity, gas, water, and all other services was insignificant. Nevertheless, for some specific industries, the cost of electricity, gas, water, and services may be a contributing factor to the negative Vi.

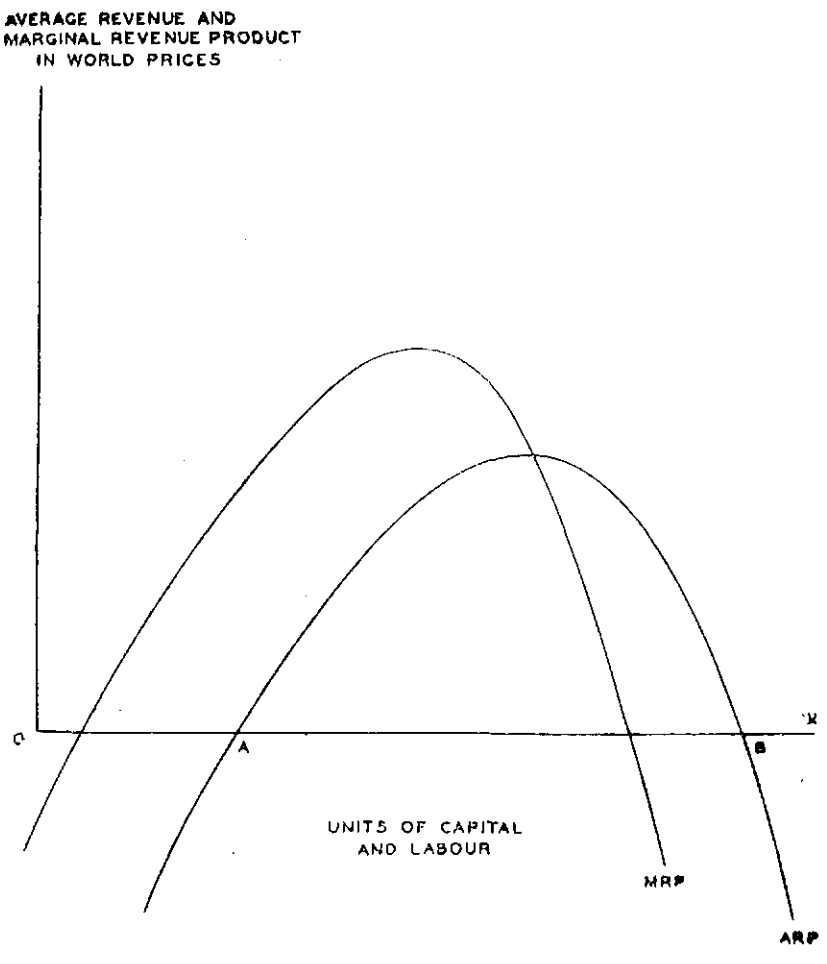
AVERAGE REVENUE AND
MARGINAL REVENUE PRODUCT
IN WORLD PRICES
O
A
B
K
UNITS OF CAPITAL
AND LABOUR
MRP
ARP

Figure 1.

Efficient resource allocation (in the static sense) requires that the marginal revenue product of capital and labour, when measured in terms of 'world' prices, be equal in all industries. In our study, we have computed only the average product of labour and capital and hence, we cannot make interindustry comparisons of the marginal productivities. We can, however, draw some important conclusions for those industries where the average product of labour and capital is negative and from these conclusions make some broad inferences about the remaining industries as well.

Figure 1 shows the conventional diagram of average and marginal revenue product curves for a given industry measured in terms of world market prices. The curves represent long-run curves with capital as well as labour a variable factor. On the horizontal axes, we plot the composite of capital and labour which is the optimum, given the wage and interest rates, for the corresponding scale of output.

There are two distinct cases where the average product of capital and labour is negative: *Case* (i), if output is less than OA, the average revenue product is negative but the marginal product is positive-. Industries which fall into this category are 'decreasing-cost' industries or are at least in the decreasing-cost portion of their cost curves, so that both marginal and average productivity would increase as output increased. *Case* (ii), if output is greater than OB, both average and marginal products are negative. These industries have clearly been over-expanded. A third case may also be distinguished. The standard 'infant-industry' argument is that even if an industry has a sufficiently large market to allow it to operate efficiently in the short run and has potentially a comparative advantage, the industry will need a subsidy to enable it to acquire experience and knowhow, to train its labour force and to establish markets. Essentially, the argument is that the industry needs time to get on to the long-run curves shown in Figure 1. At first the industry is operating at points below the curves, regardless of the scale of output, but with experimentation and experience the industry will eventually be able to raise productivity of capital and labour to that achieved in other countries.

The 'infant-industry' argument can be applied to industries with both increasing and decreasing marginal products. Hence, if the average product of capital and labour is negative, the marginal product can be either positive or negative.

Wherever the marginal revenue products of capital and labour are below their opportunity costs, resources have been misallocated. If the industry falls into Case (i) then the establishment of the industry was premature. Investment

[a] Marginal product must be either positive or zero; otherwise it would pay to reduce output to zero.

should have been postponed until the size of the market was sufficiently large to permit an efficient scale of operation. Real income could presently be increased by abandoning the industry and importing the final products from abroad. If the industry falls into Case (ii), the industry has been over expanded. Real income could be increased by shifting resources at the margin out of this industry into other uses. In both cases, real income would increase even if the displaced capital and labour were not re-employed elsewhere.

Only in the case of the "infant industries" can one argue that the past allocation of investment was *in any sense* efficient.

The data in Table I suggest that the following industries are cases of either over-expansion, premature investment, or of an infant industry:

i) all food, beverages, and tobacco except grain and rice milling, tea and salt;

ii) textiles, footwear and wearing apparel;

iii) leather and leather goods;

iv) wood and wood products;

v) motor vehicles, cycles and metal furniture.

Some of these industries may be genuine cases of 'infant industries' and our conclusions should be modified accordingly. On the other hand, looking at the list of industries in Table I, it is clear that most of the industries with negative average product of labour and capital, that is with $U_j > 1$ are not likely candidates for the 'infant-industry' argument. Most of the largest industries in Pakistan are in this group while many of the investment-goods industries which are relatively very small compared to other industries in Pakistan and to their counterparts in other countries have positive average product for capital and labour.

In terms of general categories of industries, investment has been either premature or over-extended, primarily in consumer-goods industries.

Power [14] and Khan [4] have criticised tariff, tax,, import licensing and other policies which affect the pattern of investment on the grounds that they have permitted a too-rapid expansion of consumer-goods industries which in turn has led to 'consumption liberalization', and reduced savings and growth in real income. Our results indicate that in addition to the effects on real income growth through reduced savings, the investment in consumer-goods industries has reduced growth in real income because, at world market prices, the marginal productivity of domestic capital and labour is below their opportunity cost and may even by negative.

Our data also indicate that the most productive use of capital in the future lies in the investment- and related-goods industries. These industries have been able to survive, and indeed grow rapidly, with only relatively modest tariff protection. It is clearly in these industries in which Pakistan has a comparative advantage, which she should now go on to exploit. Our study, of course, has only compared the tariff protection given to different manufacturing industries. We have not compared the manufacturing sector as a whole with other sectors such as agriculture or mining. Our conclusions refer only to the relative profitability of different industries within the manufacturing sector. It may well be that investment in manufacturing as a whole is less productive than in other sectors.

Some Qualifications

In what follows we will try to anticipate some of the objections of the skeptics. We discus some of the characteristics of the data and methodology which may have biased our results.

The equation used to compute Vi can be expressed as follows:

xt__________ y. _____________ yi ij -v i'
Vi~ (1+ti) (1-t-ti) . . . .

and Ui is given by:

. i . Wi - VL_ . . . . ,„)

As we have pointed out in Section III, the results, as computed from Equation (5), assume that *i)* the official exchange rate is an equilibrium rate or, *ii)* if the official rate is not an equilibrium rate then the scarcity margin is equal on all commodities, and *iii)* that the domestic price of each commodity is *at least* equal to the *c.i.f.* price of a competing import converted at the official exchange rate plus import taxes.

We accept assumption *iii)* as being reasonable; we know, however, that both i) and *ii)* are incorrect. We have already pointed out the bias in our results because we fail to take account of the scarcity margin on the outputs of each industry and on the domestically produced intermediate inputs which can be traded. If we knew what the scarcity margins were, and include them in our calculation, the computed value of Vi would be affected as follows ;

a) the higher the scarcity margin on the output of the industry, the *lower* would be the computed value of Vi; and

b) the higher the scarcity margin on the domestically produced inputs, the *higher* would be the computed value of Vi.

We have previously pointed out that the proportion of total intermediate inputs which are both domestically produced and receive protection through import licensing is very small. Hence, unless the scarcity margin on these inputs is substantially higher than the scarcity margin on output, it is clear that it is the latter which will be the major determinant of any bias in our measured values of Vi and Uj.

If in fact the bias in our V_i is primarily the result of neglecting the scarcity margin on the output, then our V_i will be, in general, too high, that is, if we could take the scarcity margin into account, the elfect would be that our computed Vi would be smaller than the one we now have and the new Ui would be greater than those we have calculated. Some Vi which were previously positive would now become negative and the whole ranking of the industries by V_i and U; would change depending on the relative magnitudes of the scarcity margin. We should mention again, however, that Pal's study [12] does indicate that the average scarcity margin on consumer goods is the same as that on capital goods. Hence, the ranking of these two groups of industries with respect to each other would not change. Consumer-goods industries would still be more heavily protected than investment- and related-goods industries.

Ui will be biased upward if the actual value added, Wj, is underestimated. The underestimation of value added has been a consistent problem in the Censuses of Manufacturing Industries. Tims-Stern [10] have made some estimates of the downward bias in the magnitude of value added and have adjusted the data to allow for this. Their correction may, however, be insufficient, although there is no reason to believe that their figures would understate value added in such a way as to give $U_i > 1$ primarily for consumer-goods industries.

We conclude, therefore, that our estimates of Vj and U; can be taken as a first approximation given the paucity of data on scarcity margins, interindustry relations, and the value added by industries. It will only be in the light of further information on these variables that a final judgement on the questions raised in this study can be made.

v..SUMMARY AND CONCLUSIONS

The conclusions which can be drawn from this study are as follows. First, we have found that the implicit rate of protection to value added inherent in the present tariff structure is higher for consumer-goods industries than for investment- and related-goods industries. In this regard, our finding reconfirms what Radhu [15] found when he examined the explicit tariff structure. Apparently, the effect of tariff protection on the inputs of intermediate goods is not sufficiently different for consumer- and investment-goods industries to affect the relative amount of protection afforded these industries when measured by explicit and implicit rates. Our second conclusion refers to those industries for

which we obtain Ui > 1. This implies that the amount of protection exceeds the contribution to value added that the industry makes. We have argued that this may occur for three reasons: 1) the domestic market for the output of an industry may be so small that the industry cannot avail itself of the internal economies of scale and it, therefore, operates with high per-unit costs. It may also be that the investment in certain industries is 'lumpy' in the sense that even the minimum-size plant has a minimum cost output greater than what the domestic market can absorb. Here again the industry will exhibit a high per unit cost. In either case the implication is that the industry was established before it was economically warranted; 2) the industry may still be an 'infant industry' and, thus, the observed U,>1 is a short-run phenomenon which will persist until the industry can avail itself of external economies; and 3) protection may have made investment in some industries so profitable that there has been exccss investment in some industries.

Our data do not allow us to make a clear choice between these three alternatives. However, the fact that Ui>1 is observed for many of the consumer-goods industries, which one would feel reluctant to classify as either infant industries or industries suffering from too small a market lead us to conclude that allocation of investment has been too much in favour of consumption. Thus, although investment in investment- and intermediate-goods industries has kept pace with investment in consumer-goods industries, there has been relatively too much investment in consumer-goods industries. At the margin these industries are contributing nothing to the domestic economy and indeed are probably a drag on the growth of real income since:

/) not only are they using resources which could be **used** with greater marginal products elsewhere; but

ii) they may also have negative marginal products!

Our results lend strong support to the point of view expressed in [11 j that the time has come to give priority to investment in intermediate-goods and capital- and related-goods industries. Further, the investment in consumer-goods industries should be encouraged only where it is clear that the industry can be reasonably efficient compared to alternative investment projects. In order to achieve tho kind of investment allocation which is most desirable, a thorough overhaul of the tariff and tax policies is called for. Reforms are particularly urgent because the recent trend toward liberalization of imports, if continued, will increase the importance of tariffs in determining relative prices and the pattern of resource use. We have shown that even in the past, when the potentially distorting cffects of the tariff structure were neutralized by import licensing and other direct controls, the pattern of investment has been wastefully biased towards consumer-goods industries. When the neutralizing influences of direct controls are removed and the existing

i a riff structure becomes one of the major determinants of relative prices and relative profitabilities, Pakistan could be subjected to a period of wasteful and inefficient investment in additional consumer-goods industries.

The conclusions which emerge from this study must of course be viewed in the context of the simplified model used and the data available. We have pointed out the major biases in our results which can be ascribed to our simplifying assumptions. It has been noted that our conclusions are not likely to be significantly affected if we were able to take into account the effects of the import-licensing system.

The issues which our results raise are, however, of sufficient importance to warrant further discussion and investigation of whole matter of investment strategy and the comparative efficiency of investment in various domestic industries. Too often, investment choices in developing economies are made on the basis of the simple yardstick of how much such investment will contribute to import substitution. To do so runs the risk of neglecting industries in which the country has a comparative advantage. The results may be growth in manufactured output without growth in real income. Our results indicate that this may in fact have been the result in Pakistan.

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Appendix

The equations in Section III have been developed for expositional purposes. The actual data available differ slightly from what is usually available from an input-output table and, hence, the particular equations we use to compute Ui will also differ. In what follows we derive the equations which have been used to calculate Ui.

The Tims-Stern input-output model for the year 1963/64 [10], which we have used as the basic data source, is of the following form:

$$\text{£ Xji 4- Mi + T«m + Wi = Xi} \qquad (1)$$

where Xji is the domestic deliveries from industry j to industry i, measured in current domestic prices;

Mi is the total imported inputs into industry i, measured at *c.i.f.* prices;

Tmi is the total indirect taxes paid on imported inputs into industry i;

Wi is the value added in industry i, measured in domestic prices;

and XI is the gross value of output of industry i at *factor cost,* measured in domestic prices.

Imports are already given in world market prices but the value of output and domestic intermediate deliveries must be converted from domestic prices to international prices. The assumption which we have used to convert flows in domestic prices to world prices is that the domestic price for any given commodity is equal to the world pricc of a similar commodity plus Pakistan import taxes'. This assumption can be formalized as follows:

$$\text{Xi = Y, (1 + ti)} \qquad (2)$$

where Yj is the gross value of output at factor cost of commodity i measured in international prices, and ti is the explicit rate of protection given to industry i. Similarly:

$$\text{Xji = Yji (1 + tj)} \qquad (3)$$

where t is the tariff rate on commodity j, and Yji is the value of deliveries from industry j to industry i, measured in international prices.

'The assumption is discussed fully in Section tit.

Substituting Equations (2) and (3) into Equation (1), we have:

$$\sum_{j=1}^{n} Y_{jj} + \sum_{j=1}^{n} Y_{jitj} + M_i + T_{mj} + W_i = Y_i + Y_{iti} \qquad (4)$$

We define:

$$V_i = Y_i - \sum_{L}^{r\,u} Y_h + M_i \qquad (5)$$

where Vi is the amount which could be paid to domestic factors of production in industry i if all tariffs were reduced to zero. Vi is the residual when total intermediate deliveries are deducted from gross value of output, both expressed in international prices.

Substituting Equation (5) into Equation (4) and transposing some terms, we obtain:

The expression: $Y_{jti} - \sum_{}^{} T_{nu}$ measures the net subsidy given to domestic value added by the tariff structure. The first part of the expression, (Yiti) is the additional revenue which the domestic manufacturer receives as a result of the higher prices for his output, made possible by the tariffs levied against competing imports. The second part $\sum_{V^i}^{n} Y_{jj\,tj} + T_{m,}$ is the additional cost to domestic manufacturers due to tariffs on imported inputs and to the higher prices of domestic inputs which result from the tariff protection given to domestic producers of competing inputs. The amount paid to domestic factors of production Wi is the sum of the payments which would be possible in the absence of trade barriers plus the net subsidy received as a result of the tariff structure.

To make interindustry comparison of the degree of protection implicit in the tariff structure, we compare the net subsidy given to each industry with Wi. We define:

$$u_i = \frac{W_i - V_i}{W_i} \qquad (7)$$

or

$$U_i = \frac{Y_i t_i - \left(\sum_{j=1}^{n} Y_{ji}\, t_j + T_{mi} \right)}{W_i} \qquad \ldots\ldots\ldots\ldots\ldots\ldots (8)$$

U_i measures the proportion of domestic value added which is subsidized by the tariff structure.

Substituting Equations (2) and (3) into Equation (8), we obtain:

$$U_i = \frac{X_i \frac{t_i}{1-t_i} - \left\{ \sum_{j=1}^{n} X_{ji} \frac{t_j}{1+t_j} + T_{mi} \right\}}{W_i} \qquad \ldots\ldots\ldots\ldots\ldots\ldots (9)$$

Part 3

Export Policy and Export Expansion

Export Potential of Fine Rice From Pakistan

Sayed Mushtaq Hussain

This chapter originally appeared as an article in the Winter-1964 issue of *The Pakistan Development Review* and is the result of the research carried out by the author at the Pakistan Institute of Development Economics.

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Export Potential of Fine Rice From Pakistan

Sayed Mushtaq Hussain

INTRODUCTION

In recent years, rice has emerged as an important foreign-exchange earner for Pakistan. All the rice exports since 1958/59 were supplied by West Pakistan, a surplus rice area under the present price and procurement policies. In spite of an overall rice deficit, due to deficiency of production in East Pakistan, high-priced fine varieties were exported at the same time that PL-480 foodgrains were being imported.

'The current thinking in and outside the government is to raise substantially the production and exports of fine rice (especially *basmati* rice). In order to examine the rationality of increasing the production and exports of fine rice, certain basic information on world supply and demand is essential.

This paper attempts to provide and build up some of the necessary information on the supply of and demand for Pakistan's fine rices. Moreover, the rationality of increasing the production and exports of fine rice and of continuing the present policy and institutional framework for the procurement and export of rice, is examined. The paper is divided into four parts (in addition to the introduction and conclusion): *i)* supply potential of fine rices; *ii)* potential world demand for fine rices; *iii)* policy and institutional framework for the procurement and export of fine rice; and *iv)* rationality of increasing the production and export of fine rice.

II. SUPPLY POTENTIAL OF FINE RICESi

There are many varieties of rice grown in the former Punjab and Sind areas that can be labelled as fine[2]. Rice is *fine* if it has slender kernels, and, after cooking, the grains maintain their slenderness and do not brust or stick together[3]. Among the fine rices, *Basmati, Mushkan, Bara (Hansraj)* and *Permal* in the former Punjab areas, and *Sugdeshi* group (J. J. 77, *Bengalo, Snnhari, Ghulab, etc.)* and *Dokri Basmati* in the former Sind areas, are well known. However, *Basmati* rice (particularly *Basmati* Lahore 370) is very well known in Pakistan, India, and Middle East, for its extra fineness and unique flavour when cooked.

It is estimated that at present, the production of fine rices is about 2,50,000 tons, mainly concentrated in the Districts of Gujranwala, Sheikhupura, Lahore and Sialkot (Appendix Table A-2b).

Since *Basmati* rice has a good-cooking quality and has the largest production among all the fine rices grown in West Pakistan, it is desirable to discuss its supply potential in detail.

(A) Areas of West Pakistan Suitable for Basmati Cultivation

Basmati and other slender type rices require fertile clay or clay loam'soils, abundant water supply, and mild climate at the ripening time of the crop[4]. *Mild climate* at the ripening time is the most crucial requirement. Poor soils and/or inadequate water supply can affect the crop yield to varying degrees, but without suitable climatic conditions, *Basmati* rice cannot acquire its characteristic fineness and good-cooking qualities. Hot and comparatively dry climatic conditions at the time of ripening make the kernels chalky or cause abdominal whiteness. Moreover, hot and dry climate will /) reduce the moisture content of the kernels and cause cracks in them, leading to a high proportion of broken grains when husked, *ii)* cause air cavities which make the grain burst when put in boiling water and distort the shape of the cooked grains, *iii)* cause the development of dextrine and some maltose in the starch of the grain which make the grains stick together when cooked, and *iv)* prevent the synthetic chemical reactions that lead to the formation of *aromatic compounds* which are responsible for the special *Basmati* flavours. Since the water supply can be increased through canal and tubewell irrigation in most cases, the climatic conditions are the most important limiting factors for *Basmati* rice cultivation.

iThe author wishes to thank M/s Rasul Bux A, Abbasi and Mohammad Shafi, Botanist Inchargc, Dokri Rice Farm (Distt. Larkana) and Assistant Botanist, Kala Shah Kaku (Distt. Sheikhupura), respectively, for the enlightening discussions which he had with them at the Farms in October 1964.

2The former Punjab areas include four Divisions: Rawalpindi, Sargodha, Lahore, and Multan. And the former Sind areas include two Divisions: Khairpur and Hyderabad.

3Rice Trade Glossary **defines a slender kernel as having a length-breadth ratio of 3 or more in husked form [15, p. 54],**

For a detailed introduction to *Basmati* rice, *see* [23, Appendix A],

The climatic requirements are temperatures ranging between 68-100 degrees Fahrenheit during the growing season, and mild temperature ranging between 60-80 degrees Fahrenheit during the ripening season, Moreover, for good *Basmati* cultivation, a relative humidity range of 40-60 per cent, during the ripening season, is equally important.

Basmati is a *time-fixed* variety which means that it is ready for harvest after a fixed number of days (110-115) from the time of transplantation. Appendix Table A-la shows average monthly temperature from May to December for 11 centres in West Pakistan. All the 11 centres show mild temperatures either during October-November or during November-December. In areas where the mild weather occurs in October-November, the transplantation time falls during July-August and when mild weather occurs during November-December, the transplantation season is August-September. In the former Sind areas, late sowing is essential in order to take advantage of mild weather, but late sowing involves lower yields, as early sowing followed by comparatively high temperatures will give comparatively high yields.

Table I summarises the areas where the temperature and humidity conditions seem to be suitable. Areas around Lahore (where, at present, *Basmati* is widely grown) have the ideal climatic conditions necessary for the ripening season of *Basmati* rice. However, areas around Hyderabad are only suitable if *Basmati* rice is transplanted late[5]. Parts of Lyallpur, Montgomery, and Sukkar, where the necessary climatic conditions prevail, might be found suitable.

Two important points should be noted: A) when the ideal temperature and humidity conditions do not prevail, *Basmati* could be grown, though the cooking quality of the grains will be adversely affected to varying degrees; and *ii)* areas shown as suitable in Table I will always include some patches of land where the ideal climatic conditions are missing, and the vice versa.

(B) Soil and Water Conditions in Suitable Areas

Basmati rice can be successfully grown in fertile clay or clay loam soils. Since one of the most important requirements is abundant water supply (to have standing water in the fields), an impervious subsoil is needed to make an economical use of water.

In the fine rice-growing areas of former Punjab (Lahore Division, parts of Lyallpur and Montgomery), the soil is fairly fertile and an impervious subsoil is available or is made available by the process of "puddling" fields. In the rice growing areas of former Sind (Hyderabad, Dadu, Sukkur, Thatta), the soil is as good as in the former Punjab areas and, during the cultivation season, the

5 La to transplantation is not ncccssary if some early maturing variety of *Basnwtl (<'.g., Dokri Baimnli)* is cultivated.

TABLE I

AREAS SUITABLE FOR BASMATI RICE CULTIVATION

Area	Temperature and humidity conditions (ripening season)	Suitable transplantation season	Most productive sowing season	Sowing late or early	Effecl on yields
0)	(2)	(3)	(4)	(5)	(6)
Croup A					
1. Lahore Division	**Suitable (October-November)**	July-Au gust			
2, Hyderabad	**Suitable** (November-**December)**	**August-September**	**May-June**	**Late**	**Adverse**
Group B					
L Lyallpur	**Suitable for small areas where humidity is high (October-November)**	**July-August**			
2, Montgomery	**Suitable for small areas where humidity is low (October-November)**	**July-August**	**June-July**	**Little late**	**Slightly adverse**
3. Sukkur	**Suitable for small areas where humidity is low during November-December**	**August-September**	**May-June**	**Late**	**Adverse**

Source: **Based on information contained in Appendix Tables A-la and A-lb.**

Note; **Lahore Division consists of districts; Lahore, Sheikhupuva, Gujranwala and Sialkot. The districts with comparatively moderate climate in Hyderabad Division are Hyderabad, Thatta, and southern portion of Dadu,**

underground watertable rises close to the surface which minimizes the leaching of surface water. Thus, the soils in all the areas sorted out in Table I are reasonably suitable for *Basmati* cultivation, though poor in certain cases.

Slender rices require more water than do coarse rices. It is estimated that under normal circumstances, the water requirements for *Basmati* are 70 to 75 acreinches[f]. The rainfall during monsoon season is roughly 20 inches in areas around Lahore and 8-10 inches in areas around Hyderabad, neither of which is sufficient. Canal irrigation is the main source of water supply.

Canal water is in acute shortage in areas around Lahore, however, and water requirements for rice cultivation are not adequately met. In these areas, canal water is supplied for one-fourth of the area owned, at the rate of one cusec for 64 acres [1, p. 93]. It should be noted that the regularity and adequacy of water, especially at the time of flowering, affect the slender rice yields significantly. Therefore, the use of tubewell irrigation is increasing rapidly to ensure water with more certainty.

(C) Maximum Potential Acreage/Production of Basmati Ricc

It is not possible to estimate, precisely, the potential acreage that could be brought under *Basmati* rice cultivation. However, there are certain indicators that can help to form some idea. There are four ways of increasing the present production of fine rices: *i)* by shifting the present area under medium and coarse rices to fine rices; *ii)* by shifting the area under the alternate *kharif* crops (cotton, sugarcane, maize, *etc.)* to fine rices; *iii)* by increasing total acreage for *kliarif* cultivation; and /V) by raising the yield of fine rices through regular and adequate water supply, use of fertilizers, pest control, *etc.*

i) Shifting the Present Area under Medium and Coarse Rice to Fine Rice

From 1961/62 to 1963/64, in Lahore Division (Region A), nearly 51 per cent and in the districts of Hyderabad, Dadu, Thatta and Sukkur (Region B), nearly 5 per cent of the rice acreage was under fine rices *(see* Appendix Table A-4). In Region A, if water supply and economic incentives are sufficient, it is estimated that 90 per cent of the present rice acreage can be shifted to line rices. However, a complete shift may not be possible due to water inaccessibility. On this basis, 8,00,000 acres could be transferred to fine rices, and on the basis of an assumed yield of 11 maunds per acre, the production could be raised to 3,20,000 tons[g]. In Region B, however, the maximum possible shift is roughly estimated to be 70 per cent, as there are some low-lying areas (some 20 per cent) where cultivation is not

fThe information is based on a personal communication with Mr. Mohammad Shaft, Assistant Botanist, Rice Farm, Kala Shah Kaku (District Sheikhupura).

'The *kharif* season approximately runs through May to November.

"Eleven maunds per acre was the average yield of cleaned rice in the Districts of Gujranwala and Sheikhupura (major fine rice-growing areas) during 1961/62 to 1963/64.

possible. Thus, the potential area is 6,75,000 acres and production at 5.5 maunds per acre could be 1,24,850 tons*. There are some areas in Lyallpur, Montgomery, Gujrat, *etc.,* where fine rices could be grown successfully.* By making an allowance for such areas, the maximum potential production is increased to about 4,80,000 tons. This is almost twice the present estimated production of fine rices.

ii) Shifting the Present Area tinder Alternate Kharif Crops to Fine Rice

Among many crops, cotton, sugarcane, and maize are the important ones competing with rice. Appendix Table A-3 summarises the average area under these crops, for the years 1961/62 to 1963/64. The total area under the competing crops in Regions A and B, is 8,17,000 acres, out of which 63 per cent is in Region A. By assuming the average yield of 11 maunds in the former Punjab areas and 5.5 maunds per acre in the former Sind areas, sufficient water supply, and economic incentives, the potential increase in the production of fine rices is estimated to be 2,70,000 tons. Sources /) and *ii)* combined could raise fine-rice production to 7,50,000 tons, three times the present level.

iii) Increasing Total Acreage for Kharif Cultivation

It is difficult to say how many acres of land can be usefully cultivated with improved water availability and land development. It is certain, however, that the actual *kharif* area under cultivation is much lower than the cultivable area. In the Northern Zone, about 41 per cent of the *kharif* cultivable area was reported to be cultivated in 1960/61 *kharif* season. It is assumed that the proportion can be raised to 60 per cent or higher in future>» However, the future area under sugarcane, rice, cotton and foodgrains *(jowar, bajra* and maize) is calculated to be 77 per cent higher than the present. For the same crops in the Southern Zone, the assumed future area is supposed to be 50 per cent higher.

Nothing precise can be deduced from these facts except that the total area available for *kharif* season can be tremendously increased through improved water supplies and land reclamation and development. Roughly a 50-per-cent increase can take place in the present culturable *kharif* acreage. With this assumption, the potential production of fine rices estimated under *i)* and *ii)* can be increased by 50 per cent. This would raise the maximum production potential to 11,25,000 tons (4.5 times the present production).

»In the former Sind areas, with late sowing of *Basmati* rice, it is estimated that the yields are reduced to one-half to one-tliird due to groundwater, pest and rice stem borer attack conditions. We use 5.5 maunds per acre (one-half of former Punjab areas) for estimating production. On the basis of the present proportion of production in areas of former Punjab, except Lahore Division, an allowance is made for the potential production in the suitable areas of Lyallpur, Montgomery, Gujrat, *etc.,* at 10 percent of the production in Region A,

"'For the reported and assumed future intensity of cropping, refer to Harza Supporting Studies [21, Chapter II, Tables 11.7 and 11.8],

iv) Raising the Average Yield of Fine Rice

The prseent rice yields are obviously low, because of untimely and inadequate water supplies and pests, inadequate use of fertilizers and manures, improper seeds, improper and exhaustive crop rotation, *etc.* It is estimated that rice yields as a result of the above inputs and measures can increase by 50 to 100 per cent [22 ; 34], By making an allowance for the potential increases in rice yields, the potential production of fine rices can increase to 16,88,000—22,50,000 tons.

The above estimates of potential supply (summarised in Table II) are based on several assumptions: a) that the water supply can be increased to any required quantity; *b)* that the necessary economic incentives can be created and made effective; c) that the programmes of land reclamation and development will increase the *kharif* cultivable area to the assumed extent; and *cl)* that the measures and economic incentives will be available to make the assumed increase in rice yields feasible and profitable.

The estimates of maximum production potential serve *no* other purpose than to assure us that any plan to increase the production of fine rices two to three times is feasible, though serious efforts will have to be made to increase acreage and yields, and the increase may be at high economic costs.

(D) The Required Economic Incentives

By economic incentives we mean a shift in the price of fine rice relative to that of the competing crops including coarse rice. The required strength of economic incentives can only be determined by a reference to the relative cost and earnings per unit of land, water, and other resources in the various at Some of the factors that make the costs of producing fine rice higher than the coarse rice, are the following:

/) Production of fine rice is more water intensive than coarse rice>>.

ii) Fine rices usually have longer maturing periods compared to those of the coarse and medium varieties [1, Pp. 125-131], The differences range from 15 to 45 days. This means higher water and labour costs.

iii) Fine rices, in general, require water with more certainty and regularity.

iv) As line rices have longer maturing periods or have to be transplanted late, the sowing of the *rabi* (winter) crop is delayed or becomes impossible. When the sowing of *rabi* crop is delayed in areas of low rainfall

nit is experienced that the total water requirements of late maturing line rice are about 72 acre inches and that of early maturing coarse rice varieties about 60 acreinches (footnote 6).

TABLE II

ESTIMATES OF POTENTIAL SUPPLY OF BASMATI RICE

Source of production	Estimated potential production		
	Existing conditions	Adequate water supply	Increase in rice yields by 100%
(1)	(2)	(3)	(4)
	(.....000 tons.....)		
(1) Estimated present production	250	375	
(2) Increased production through			
i) Shifting the medium and coarse rice acreage to fine rice:			
Region A	323	485	646
Region B	125	187	250
	448	**672**	**896**
Plus allowance for other areas in Region A	32	48	64
Total: *i)*	480	720	960
Shifting the acreage under alternate *kharif crops* to fine rice:			
Region A	*209*	314	418
Region B	61	91	122
Total: *ii)*	270	405	540
Total: *i)* and *ii)*	750	1,125	1,500
increasing the *kharif* acreage by 50%	375	563	750
Total: i), *ii)* and *iii)*	1,125	1,688	2,250

Source: **As explained in the text, Column (3) is computed from Column (2) on the assumption that with adequate water supply the rice yield will increase by 50 per *cent.***

(during October-December) and/or of nonperennial canal networks (such as the former Sind), the normal *rabi* yields fall due to low moisture content in the soil and lack of adequate water supply. Such lower *rabi* yields mean an additional opportunity cost for fine rices.

v) Even in the case of early maturing varieties of fine rices, the transplantation sometimes is done late so that mild climate prevails at the time of ripening. With late transplantation, the fine-rice yields fall in some areas. For instance, in the former Sind areas, the ideal time for rice transplantation is May-June, and late sowing (July-August) will reduce yields to one-half to one-third of the potential if transplantation could have taken place in June, due to less ideal climatic and water conditions and the more active attack of rice stem borer (during July-August) on young plants.

vi) The coarse riccs are more nearly impervious to less than ideal conditions, and the probability of loss in the normal yield on account of untimely and inadequate water supply and disease is much more in the case of fine rices.

Clearly, the change in the relative price of fine rices *(Basmati)* should bo sufficient to make the area shift from medium and coarse rices to fine, profitable. The main costs to be compensated are: water, loss in yields in the *rabi* crops, loss in yield due to late transplantation, and the risks of loss in normal yields. In the former Sind areas, the change required in the relative price of fine rice will be much larger than that in the former Punjab areas, as the loss in yields due to late transplanting, late sowing *of rabi* crops, and rice stem borer attack are much higher. To make the hypothetical maximum acreage under fine rices effective (as estimated under (C), Subsection /)), an increase of from 50 to 100 per-cent in the price of fine rices, relative to medium and coarse rice, is essential[12].

Turning to the case of a shift of the area under the alternate *kharif* crops to the cultivation of fine rices, a substantial increase in the price of fine rice is a necessary, but not a sufficient, condition. The water supply will have to be increased to an enormous extent, since the water requirements for fine rice are more than double that required for cotton, and more than three times that of maize [2, p. 32].

Cotton yields are low on land with a high watertable (0-10 feet) and in future, with land-reclamation projects which will lower the watertables, cotton yields v/ill rise. Therefore, the increase in the price of fine rice relative to cotton will have to be much higher than that necessary at present. The exact magnitude of the changes in the relative price of fine rice depends on factors like cotton and

"Based on Appendix Table A-5b, in which we have shown the estimated opportunity cost of fine-rice cultivation through delayed *rabi* crop.

other crop yields in particular areas and how they will change with land reclamation and development.

Finally, it should be noted that for an effective shift from coarse rice or/and alternate *kharif crops,* substantially increased and regular water supply is crucial. With limited water supplies, it is not advantageous (in terms of foreign exchange) to use water for more rice cultivation!³.

Before discussing the rationality and desirability of increasing the production/export of *Basmati* rice, we wish to analyse the international demand potential for fine rices.

lit. WORLD POTENTIAL DEMAND FOR FINE RICE (BASMATI)

In this section, we will discuss the world demand for fine rices in general and *Basmati* rice in particular. As a background, some facts regarding the world rice economy and international trade are presented first.

(A) Main Features of World Rice Economy and Trade

/) Rice is the most valuable primary product, surpassing not only other crops, such as wheat, maize, cotton, and sugar, but also coal, crude petroleum and pig iron [29], During 1959/60 to 1961/62, the average production of paddy was 236.4 million metric tons, equivalent to an estimated figure of 153.4 million metric tons of milled rice[14]. Over 90 per cent of the world production is concentrated in Asia (including Mainland China),

ii) The great bulk of the world rice is consumed in countries where it is grown, and only 3.6 per cent of the production (very low compared with other cereals) enters into the international trade[15]- Absolute trade quantities range from 5 to 6 million metric tons *(see* Appendix Tabic B-3).

iii) The number of countries that could be regarded as the major participants in rice trade is small. Nearly 70 per cent of the rice exports come from three countries: Burma, Thailand and the USA[16]*'. Nearly 63 per cent of the rice imports are in the Far East, concentrated in Indonesia, Malaysia, India, Ceylon and Hong Kong.

iv) Since few countries participate in rice trade and since rice production can vary significantly as a result of the changing weather conditions, the quantities traded and the prices fluctuate substantially.

usee, Ghulam Mohammad [20, Pp, 512-513].

"Converted at the average milling rate of 65 per cent *(see* Appendix Table B-l).

isFor computing the percentage of rice traded, the average for the years 1951-53 is used, as data were easily available for these years *(see* Appendix Table B-3).

6The relative shares of the market are, roughly, Burma 30 per ceni, Thailand 25 per cent, and the USA 16 per cent *[17],*

v) Rice is a differentiated commodity, as the various kinds traded internationally differ very widely in shape, colour, cooking characteristics, type and degree of milling, and the proportion of broken grains. Consumer preferences vary from country to country. Moreover, there is no international market on which a large number of varieties are traded fairly continuously. Along with other factors, changing conditions of trade contracts, barter deals and other linked business (security of markets or furtherance of foreign policy, *etc.)* make it extremely difficult to compare rice prices or even to measure their movements.

ri) Most of the principal exporting countries sell through a national monopoly, while in the remaining cases, governments play an important role. Among the leading importing countries, nearly half have single purchasing agencies 118, l'p. 4-10],

(B) Availability of Relevant Statistics

Our main interest is to analyse the world potential demand for a particular group of rices called fine rices and a special variety in this group called *Basmati* rice. Statistical data of all sorts are lacking. There are no published statistics showing the world production, trade, and prices of fine rices. Moreover, there is tto available information about the income and/or price elasticities of demand for fine rice.

Therefore, we will not be able to carry out any comprehensive and precise analysis of the shape of the demand curve for hire rice and the potential shifts in it. Nevertheless, we propose to discuss the shape and shift problems in general terms with available data and information. The discussion will help us to understand some economic characteristics of the international rice market and their implications for the fine group. It will be of particular use in assessing the sense of various projections made in connection with the exports of *Basmati* rice from Pakistan.

(C) Potential Demand for Fine Rices including Basmati Rice

As indicated above, there are two main questions to be answered: a) what does the demand curve for fine rices and *Basmati* rice look like? (Or putting the question in another form: how much would the price fall if Pakistan should try to sell more *Basmati* rice in the world market?) And *b)* how would the demand curvc shift through time?

/) The Shape of the Demand Curve (Price-Quantity Relationships)

In the absence of data on quantities of fine rices produced and traded, and on their prices, we are forced to adopt some indirect method to estimate the quantities of various groups of rice traded and the range of prices.

The first problem to be solved is the basis for classifying the rice traded internationally into groups. There are many physical characteristics like the length of kernels, length-breadth ratio, colour, type of processing, degree of processing, flavour, cooking time, water absorption, *etc.,* that could serve as the basis for classification. However, it will be impossible to use any single characteristic as a basis, because the rice traded has many different combinations of characteristics that affect the value of rice in the market. Moreover, since we do not possess detailed data about the physical, cooking, and other characteristics of the rices traded internationally, it becomes necessary to discard such characteristics as the basis for classification.

Instead, we propose to use four price ranges (less than SI 10, §110 - $130, $130-8150, and $150-8210) as the basis for classifying the quantities traded internationally into groups. The procedure is chosen on the assumption that rice is a highly differentiated commodity and the quality differentiation is reflected in prices. Such an assumption is substantiated by international price data indicating that a high-price rice is the one which has, comparatively, a low proportion of brokens, more slenderness, and non-stickness[17]. Since Pakistan *Basmati* rice is slender and non-sticky, it is assumed that only other high-price varieties of rice are substitutes is. We assign names to our four price groups of rice. They are :

(A) Coarse rice (below Si 10)

(B) Low medium rice ($110-1130)

(C) High medium rice ($130-5150)

(D) Fine rice ($ 150 - $210)

On the basis of unit values, countries have been classified into the above-mentioned four groups; and taking a three-year average (1960-1962) for imports, an estimate has been made of the quantities imported in these groups. Table III summarises the average quantities imported in each group, during the period 1960-1962.

The method of classifying countries into the four price groups, on the basis of unit values, is a very crude one. It neglects the possibility that each country may not be buying exclusively one or the other type of rice, but some mix of

nprice differentials within the group may depend on colour, type and degree of milling, water absorption, *etc.,* and the markets in which sold. However, slenderness and non-stickness are assumed to be the basic qualities responsible for high price.

International prices (1959 to 1961) for some of the varieties of rice appear in [11, Table 4, p. 32],

isThe price of Pakistan *Basmati nc&* ranged from $ 168 to $ 210 (average $192) during the period 1959-61. As *Basmati* rice has some special characteristics like a typical flavour and fineness of cooked grains, it commands some premium over other slender and non-sticky rices in the traditional markets (mainly Middle East and Persian Gulf countries).

TABLE III

AN ESTIMATE OF WORLD RICE IMPORTS (AVERAGE 1960-62)

Name assigned	Price range	Average quantity imported	Proportion of total imports
	($ per ton)	*(000 m. tons)*	*(percentage)*
A. Coarserice	below $110	2,186	37.3
B. Low medium rice	$110 - S130	2,456	41.9
C. High medium rice	S130 - $150	709	12.1
D. Fine rice	$150- $210	509	8,7

Source: **Computed from [17],**

them. In order to check the above estimate and to consider the possibility of rice imports of the mixed type, we use a slightly different method.

Taking the main geographical regions of the world, and classifying average imported quantities into our four price groups, on the basis of unit values of imports, we get:

Rice group	imported	Rice group	S p o S
	(000 m. tons)		*(000 m. tons)*
A. Coarse	3690	C. High	601
B. Low medium	1633	D. Fine	228

In Group A, it is highly unlikely that line rice is mixed. However, in Groups B, C, and D, the possibility is present. Assuming that only coarse and fine rices are imported at the average price of §108 and §180 per ton, respectively, the coarse and line rices must be mixed in the ratio of 5:1 in case of Group B, 1:1 in case of Group C, and 1:2 in case of Group D to obtain the average price of §120, $140 and $180'9. On the basis of the mixture ratios, we have split the quantity of fine rice among each group *(i.e.,* fine rice content: 272 (Group B), 155 (Group C), and 152 (Group D) thousand metric tons). Wo arrive at a total of 579 (compared to 509, estimated in Table III) thousand metric tons.

19TO **split Group D, we have taken the price of super fine rice as $210 per ton**

For our purposes, we will use the average of both the estimates, that is 540 thousand metric tons. We also know from Table III that the quantity imported, in the next group (high medium) of rice, is 700 thousand metric tons.

On the basis of the estimated imported quantities of rice in Groups D and C, we can say that if the price of fine rice is reduced from the average level for fine group $180, to the average level of the next lower group $140 per ton, an additional quantity of 700 thousand tons could be sold if consumers prefer to buy fine rice at the high prices of medium rice. This implies the value of price elasticity of demand for fine rice to be 3.14 between $140-$180 a ton.

Pakistan *Basmati* rice earns a premium of §20 - $30 per ton over the average fine rice, in its present markets (mainly Middle East), due to its extra fineness and special flavour. Therefore, one should expect the demand elasticity for *Basmati* rice to be comparatively more elastic than that of rices within the fine group[20].

Pakistan's exports of fine rices *(Basmati* and *Permal)* averaged 87 thousand tons during 1960-62, or 16 per cent of the world trade in fine rice group *(see,* Appendix Table C-2a). Plans to increase the exports of fine rices from Pakistan, in the short run, will raise Pakistan's share in the fine rice market. Other things being equal, Pakistan's increased share of the market will cause a loss of markets for other countries (the USA, Thailand, Madagascar, Australia, *etc.)* which export some high-price rice, and increased competition can necessitate a price cut. However, as noted earlier, the price cuts will increase the foreign-exchange earnings more than proportionately, as the world demand for *Basmati* rice within a certain price range is quite elastic.

To say, in precise terms, how much exports will increase with a specific price cut is very difficult. However, Table V-b shows the estimated off-take of Pakistan *Basmati* and fine rices, at various prices, on the assumption of constant world market share for Pakistan. Nearly 11 per cent price cut is accompanied by an increase of 45 thousand tons of *Basmati* and 56 thousand tons of all fine rices *(Basmati* and *Permal).* A price reduction of 22 per cent increases the exports of *Basmati* and of fine rices by 91 and 112 thousand tons, respectively.

Assuming that Pakistan's fine rice is superior to other fine rices and the Pakistan's share in the market can be increased, the increases in the quantities

MWhen *Basmati* rice Buds way to markets other than Middle East, it might not letch any premium. In fact, it might have to be sold at a discount, since in most European and other countries, the special flavour is not liked or appreciated, Clean, well polished and packed slender rices with short cooking time might be more popular. Therefore, it is quite possible that *Basmati* rice would have to be sold at a discount.

exported, as a result of price cuts, could be much more than those indicated abovezi.

In short, three conclusions emerge from the above analysis. /) The demand for fine rice group is quite elastic and the crude price elasticity is 3.14. The quantity sold in this group could be more than doubled if the average price for this group is reduced by 22 per cent, *ii)* We should expect, in general, the demand for Pakistan *Basmati* rice to be comparatively more elastic than that of the entire fine rice group, *iii)* The market for fine rices is a differentiated one, hence, non-price factors are important. They might make *Basmati* rice a premium rice in certain markets and a discount rice in other markets.

ii) Shifts in the Demand Curve through Time

Due to the lack of data, it is not possible to estimate, for fine rice, income/consumption elasticity and the effect of population growth on consumption. However, we deal with the problem in three steps: i) concentrating on the world market for fine rice, and estimating the probable growth rate of potential demand; *ii)* estimating the "off-take" for Pakistan *Basmati* and other fine rices on some special assumption *(i.e.,* constant, world market share); and *iii)* examining some of the projected/planned quantities of fine rice for exports,

a) Probable Growth Rate of Potential Demand: To begin with, we make two assumptions: the consumers' tastes and the price of fine rice, relative to the substitutes, will remain constant. With these general assumptions, we are left with income and population growth as the main factors that will influence the potential demand.

Table I V-a depicts the estimated quantities of fine-rice imports in the various continents/regions, and on this basis, weights are given to the six continents/regions of the world. Table IV-b shows the FAO-assumed growth rates of population and GNP per capita [3, Table M-1, p. A-2), By using the income elasticities of demand for cereals (given by the FAO), we have calculated the average weighted growth rate of potential demand on the basis of low and high assumed growth rates of GNP per capita. For potential demand, we used the formula (1 + P) where Y= growth rate of GNP/caput, £ - = income elasticity of demand for, in this case, cereals, and P=population growth rate. The average of low and high growth rates of potential demand is 1.21 per cent per annum».

21 If, for Pakistan, selling more means selling outside Middle East and in markets where *Basmali* rice does not command premium, non-price measures like replacing *Basmati* with other suitable slender rices, proper cleaning and packing, good milling or parboiling and advertisement could aid in assuring competitiveness with other fine rices.

-Since the income elasticity of demand for cereals is negative in the case of Western Europe, Mediterranean Europe, North America and Oceania, we have neglected the effect of income growth, Population growth is assumed to be the only factor influencing the demand for fine rice.

TABLE IV-a

ESTIMATED QUANTITIES OF WORLD FINE RICE IMPORTS
(Average: 1960-62)

Continent/Region	Estimated quantity of fine-rice imports	Proportion of total imports
	(000 metric tons)	*(percentage)*
Western Europe	98	17
Africa	78	14
USSR	48	8
Eastern Europe	48	8
Near East	135	24
Oceania	20	24
North America	31	5
Latin America	121	21
	579	100

Source: [171.

Since rice is thought to be a superior cereal, in most cases, there is a need for using a higher income elasticity of demand than that for other cereals. To meet this end, we picked the highest income elasticity for cereals in any continent/region of the world, and that is 0.5 for Asia and the Far East". Using the income elasticity of 0.5 and following the above procedure, we have calculated an average growth rate of potential demand for fine rice, that is 2.5 per cent per annum.

World import trade quantities of 540 and 1,240 thousand metric tons (at average prices of §180 and §140, respectively) are projected for 1970 at the rates of 1.21 per cent (Estimate 1) and 2.5 per cent (Estimate 2) per annum. The results are summarised in Table V-a.

b)'Off-Take' of Pakistan Basmati and All Fine Rices: On the assumption that Pakistan's share in the international market (during 1960-62: 13 percent

•The main cereal in Asia and the Far East is rice.

TABLE IV-b

ESTIMATED GROWTH RATE OF POTENTIAL DEMAND FOR FINE RICE BY 1970

Continents/Regions	Estimated quantity imported (rough weights)	Assumed rate of (population growth)	Assumed rare of GNp/capui growth		Assumed income elasticity of demand for cereals	Estimated growth rate of potential demand		Assumed income elasticity of demand for fine rice	Estimated growth rate of potential demand	
			Low	High		Low	High		Low	High
a)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(U)
1. Near-East, Africa (S. Africa)	38	2.5	1.5	2.8	0.2	1.05	1.96	0.5	2.63	4.90
2. Latin America (Argentine)	21	2.7	2,0	2.8	0.14	L04	1.45	0.5	3.70	5.18
3. Western Europe	17	0.4	2.3	3.3	—0.4	0.40	0.40	_	0.40	0.40
4. Mediterranean	16	1.0	3.9	5.2	—0.3	LOG	1.00	_	1.00	LOO
5. N. America and Europe	5	1.8	1.3	2.5	—0.5	1.80	1.80	_	1.80	1.80
6. Oceania	3	2.0	1.0	2.0	—0.5	2.00	2.00	_	2.00	2.00
Average weighted growth rate of potential demand						.99	1.43		2.15	2.95
Average of high and low rates						1.21			2.5	

Sources: Column (2) is based on Table I V-a; Columns (3) to (5) are based on [3, Table M-1, p. A-2].

for *Basmati* and 16 per cent Tor *Basmati* and *Permal),* will remain constant, we project the 'off-take' for *Basmati* in Table V-b and for all fine rices in Table V-c. If Pakistan's share in the international fine-rice market could be raised, the 'off-take' would be more than those indicated in Tables V-b and V-c*[1]. However, the projected 'off-take* helps us to examine the commonsense of some of the projections and plans to export *Basmati* rice during the Third Five Year Plan.

TABLE V-a

PROJECTED QUANTITIES OF FINE RICE, TRADED INTERNATIONALLY

Price per ton	1961	1970 (Potential)	
		Estimate 1	Estimate 2
1, S 180	5.40	6.20	6.70
2. $ 170	7.15	8.10	8.90
3. S 160	8,yu	10.00	11.10
4. $ 150	10.65	11.90	13.30
5. $ 140	12.40	13-80	J5.50

Source : Computed on the basis of growth rates of potential demands calculated in Table III.

TABLE V-b

PROJECTED 'OFF-TAKE* OF PAKISTAN FINE RICE (BASMATI) AT CONSTANT MARKET SHARE

Price per ton	1961	1970 (Potential)	
		Estimate 1	Estimate 2
1 • $ 180	0.70	0.81	0.87
2. $ 170	0.93	1.05	1.16
3. $ 160	1.15	1.30	1.44
4. $ 150	1.38	1.54	1.73
5. $ 140	1.61	1.79	2.02

Source; Computed from Table V-a by taking 13 per cent of the quantities shown against the price: $180 - $140.

2*There are indications for an increase as well as a decrease in Pakistan's share of the world fine-rice market. The factors that can reduce Pakistan's share of the market are: possibility of India and UAR's entry into the fine-rice market; USA's plans to increase exports of high-price rice; need for Pakistan to sell outside the shallow market of Middle East; and the possible emergence of economic and/or political trade partnerships adverse to Pakistan's trade interests.

TABLE V-c

PROJECTED 'OFF-TAKE' OF PAKISTAN FINE RICE (BASMATI) AND (PERMAL) AT CONSTANT MARKET SHARE

price per ton	1961	1970 (Potential)	
		Estimate 1	Estimate 2
i, $ 180	0.86	0.99	1.07
2. $ 170	1.1	1.29	1.42
3. S 160	1.42	1.60	1.77
4. $ 150	1.70	1.90	2.12
5. $ 140	1.98	2.21	2.48

Source: Computed from Table V-a by taking 16 per cent of the quantities shown against the prices: $180 - $140.

c) Examination of Some of the Projected or Planned Quantities of Fine Rice for Exports (1970): We would like to examine three figures: *a)* 1,75,000; *b*) 2,50,000; *c)* 6,00,000 tons, which have been put forward as the targets for fine-rice exports till 1970^5. Comparing these figures with the projected 'off-take', shown in Table V-c, it is obvious that export of quantities of 1,75,000, and perhaps of 2,50,000 tons, seems reasonable, though at reduced prices. Table VI

TABLE VI

ESTIMATED VALUE OF FINE RICE 'OFF-TAKE —1970 BASED ON PAKISTAN'S WORLD MARKET SHARE: 1960-62

Quantity	Estimate 1		Estimate 2	
	Price	Earnings	Price	Earnings
(torn)	*(Rs\ per ton)*	*(million Rs.)*	*(Rs. per (on)*	*(million Rs.)*
(a) 1,75,000	714	125	761	133
(b) 2,50,000			667	167
(c) 6,00,000				

Source: Computed on the basis of Table V-c.

Note: For quantity (a), the price per maund is Rs. 26.25 (Estimate 1) and Rs. 27.98 (Estimate 2). For quantity (b), the price per maund is Rs. 24.52 (Estimate 2).

[1]'Some of these projected /planned quantities for exports are published, others unpublished. For example, the Planning Commission has envisaged 1,75,000 tons of *Basmati-r'\c<s* exports (out of a total of 3,00,000 tons) at Rs. 1,000 a ton during the Third Five Year Plan *(see* [26, p. 70]).

indicates the estimated price and the total earnings from the export of the above quantities.

A quantity of 1,75,000 tons of fine rice exported is shown to earn 125-133 million rupees. Assuming that the Pakistan fine rices will earn a premium of about 10 per cent over other fine rices, the earnings from the export of quantity (a) increase to 138-146 million rupees[25].

Quantity (b) would earn 167 million rupees, compared to others' estimates of 186 million rupees.

Whole of the quantity (c) could not be sold at or above $140 per ton. At the price of $140, an excess supply of 3,52,000 to 3,79,000 tons is created. In order to sell the excess quantities, either the price will have to be cut below $140 per ton or/and Pakistan's share in the international market will have to rise from its present level of 16 to the order of 23 to 28 per cent[27].

It must be understood that our projected 'off-take' does not rule out the possibility of exporting more than those quantities that we have indicated. However, it implies that this can only happen, provided: *i)* Pakistan's share in the world fine-rice market is raised to a level higher than its present level; and/or *ii)* with increased quantity exported, the new markets enable the Pakistan rice to earn a higher premium over other rices; and *iii)* tastes and the price of fine rice relative to substitutes change in a way that the world demand for fine rice exceeds our estimates, and that Pakistan gets a share.

Provision *ii)* is highly unlikely, because new consumers' tastes are not believed to be as favourable as they are now in Middle East and Persian Gulf countries. But efforts in the direction of provisions *i)* and *iii)* will definitely help to sell more with or without price reductions.

IV. POLICY AND INSTITUTIONAL FRAMEWORK FOR THE PROCUREMENT AND EXPORT OF FINE RICE

We divide the discussion into two subsections: *A)* procurement of fine rices; and *B)* export of fine rices.

(A) Procurement of Fine Rices

The rice procurement scheme was first enforced in the former Sind on ist October, 1949 and in the former Punjab on 1st October, 1952. The policy was pursued intermittently and was designed to secure food from the surplus producing areas in order to supply areas where food shortage was acute.

[25] **Planning Commission envisages the export earnings from 1,75,000 tons of fine rice to be 175 million rupees, which exceeds our estimate by 27 to 29 million rupees.**

27 *See* footnote 24.

More recently (Ist October, 1958), the Monopoly Procurement Scheme was introduced in some of the areas of former Punjab and Sind with a double objective : to secure rice for shipment to East Pakistan and to secure fine- and medium-quality rice for exports. For the year 1964/65, the areas controlled for the procurement of quality rice are: Districts of Gujrat, Gujranwala, Sialkot and Sheikhupura, Jaranwala Tehsil (of Lyallpur District) and the prescribed Revenue Estates of Lahore District[28]. Procurement operations are carried out by the Provincial Government of West Pakistan on behalf of the Central Government of Pakistan.

About May each year, the Government of West Pakistan announces the targets of procurement for the various varieties of rice and fixes procurement prices for each variety. Announcement is also made about the quantity which, after the completion of procurement, will be given pro rate as free release to the millers for sale anywhere in West Pakistan in the free market.

In order to procure rice, the government puts a ban on the movement of rice from the controlled areas to a place outside, and fixes the price at which the desired quantities could be sold to the authorised rice dealers. Essentially, the procurement operations prevent dispersal of production by localization and encourage the flow to the procurement centres.

After the harvest, the farmer brings paddy to the market where the rice miller/middleman, keeping in mind the procurement target, the free quota, and the procurement price, purchases the paddy at a certain price.

Then the rice miller enters into a contract with the provincial government to supply a certain quantity of rice through the authorised agents. Ninety per cent of the price is paid at the rail heads. The rest of the payment is made after the results of samples are received from the Provincial Food Laboratory, Lahore. If the quality of the rice purchased is up to the specifications, the supplier gets the full payment (Rs. 28 per maund, for *Basmati).*

From the economic point of view, the procurement operations in no way force the farmers to cultivate certain area or to surrender a certain quantity of rice. The farmers make their own choice about acreage, quantity to retain and to sell freely; however, the farmers cannot choose their market and, therefore, the price at which the produce could be sold. Thus, when the free-market prices outside the controlled areas are higher than the government-fixed procurement prices, the farmers are deprived of the gains which could accrue to them. Lower prices tend to put brakes on increased production. Consumers pay a price

MThe Revenue Estates of Lahore district include: Shahdara, Kot Mohibbu, Kot Begum Nain Sukh, Saggian Kalanwar and Shahdara Parao of Lahore Tehsil.

For coarse rice, the controlled areas are: Larkana, Jacobabad, Sukkur, and Dadu districts (see [31]).

higher than that which should prevail if there was no monopoly procurement and exports of rice.

Hence, the groups that lose are rice producers and consumers. Moreover, since the fine- and medium-quality-rice exports get an export bonus (bonus vouchers in the amount of 20 per cent of the value of rice exported) against which imports of various goods are made, further distribution implications follow.

Appendix Table C-1 depicts the average prices of fine and coarse rice (for the harvest season, November-February) both in the procurement and non-procurement areas, for the period 1953/54 to 1963/64. Procurement prices for *Basmati* rice have gone up from Rs. 24 (1960/61) to Rs. 25 (1961/62), Rs. 26 (1962/63), and Rs. 28 (1963/64 and 1964/65), but the procurement price for coarse rice has remained unchanged. The increase in the free-market prices of fine rice outside the procurement areas is notable since 1959/60, and as the proportion of quantity procured in the production of fine rice increased, the difference between the free-market price and the procurement price increased. During the period 1960/61 to 1962/63, it is estimated that the everage free-market price was higher than the procurement price by 70 per cent in the case of fine rice, and 25 per cent in case of coarse rice.

Appendix Table C-2b shows the estimated production, marketable surplus, and the absorption of fine rice into the non-procurement areas of West Pakistan, Marketable surplus is taken to be three-fourths of the production, as one-fourth is estimated to be the requirement for seeds and farmers' consumption. The absorption of fine rice in the non-procurement areas is calculated by deducting the quantities of *Basmati* and *Permal* rice that were procured from the marketable surplus.

The extent of export surplus of fine rice is mainly influenced by three factors: the actual production of fine rice, the effectiveness of the localization of sale through the procurement operations, and the price at which the rice is purchased by the procurement authority.

(B) Exports of Fine Rice

Until the recent past, the procedure was that an exporter who had taken the contract (to export rice at a certain agreed price) purchased the rice from the Ministry of Food, which arranged loading when the ship was available to the exporter. When the ship left the port, payments were made to the Food Ministry.

More recently, the government have entered into a three-year agreement with Messrs. Pakistan Rice Merchants Syndicate Limited, Karachi, for the

export of *Basmati* rice and settled both export prices and the quantities to be exported as follows:

i) £74/5/- + Rs. 150 per ton *f.o.b.* Karachi for 86,000 tons for the first year.

ii) £75/5/- 4- Rs. 150 per ton *f.o.b.* Karachi for 1,05,000 tons for the second year.

Hi) £77/5/- + Rs. 150 per ton *f.o.b.* Karachi for 1,17,000 tons for the third year.

The exporters get a 20-per-cent bonus on the value of rice exported which they can sell in the free market for bonus vouchers at a premium (currently 140 to 150 per cent).

At the present contract export price for *Basmati* (£ 74/5/--}- Rs, 150 per ton), the exporter earns (and pays) Rs. 41.90 per maund, and with a 20-per-cent export bonus (if sold at 150-per-cent premium), he earns Rs. 10.42 per maund more. From the export of one maund of *Basmati,* the government and the exporters should be earning Rs. 52.32 per maund. At the procurement price of Rs. 28, this implies a gross profit of Rs. 24.32 per maund, ignoring the procurement, carriage, storage, and export expenses, and underselling^. The net profit to the government and exporter depends on the extent of expenses and of underselling. Nevertheless, it seems to be quite a profitable business.

Could the present quantity of *Basmati* rice exported be secured in the free market? Since the present contract export price (Rs. 41.90) is close to the free-market price in non-procurement areas (Rs. 42,38) and well above the price in procurement areas (Rs. 28), there is no reason to prefer procurement operations to the free market. The usual agrument that the free *Basmati* rice market will not be able to create the existing level of exportable surplus is inconsistent with the existing prices for the three segments of the market.

When the free-market price exceeds the procurement price, the farmers will be able to secure higher prices for their produce, resulting into: /) increased production; *ii)* reduced absorption in procurement areas; and *in)* increased absorption in non-procurement areas (if price is less than Rs. 42.38 per maund)30. Factors /) and *ii)* will increase the potential exportable surplus, and factor *in)* will reduce it. It is likely that the free *Basmati* rice market will

29The gross profit for the government is the difference between the procurement price (Rs. 28.00) and the contract export price (Rs. 41.90), that is Rs. 13.90 per maund.

30The rice acreage and yields will respond to price increases, *see* [20]. Since *Basmati* rice is not the staple food of the areas under reference, and the farmers cultivate *Basmati* as a commercial crop, there is every reason to believe that the marketed surplus will increase with the increase in the price for (he farmers.

ensure increased or at least the existing exportable surplus at a price not exceeding Rs. 42.38 per niaund. Currently, the export prices are fixed by the contract though the actual sale price can vary somewhat, as the export bonus enables the exporter to sell below the contract price within a certain range. In case the contract price is fixed at a level higher than that necessary to export some specific quantity, there could be shortfalls in quantity exported. A built-in *rigidity* of export prices causes a national loss of foreign-exchange earnings when the demand for *Basmati* rice is elastic.

In order to achieve flexibility in the export prices, private trade with export bonus would be more suitable than the present system. However, it is commonly argued that with private export trade the quality of *Basmati* rice will deteriorate as a result of the mixing of some low-priced varieties of rice. Such an argument holds only when the profit margin for the exporter is very wide, as it could be the case when the rice is procured from the farmers at low prices and is sold at high prices in the international market by the private traders[3']. The problem arises because of high profit per unit and closed entry which encourages some persons to do the business for a short time to make money and not to care about their own goodwill. If all the varieties of rice permitted for export carry the same export bonus and the domestic as well as the international trade is run by private trade (with free entry), then, in the long run, only the genuine traders will participate and there will remain no special incentive for mixing the low-priced varieties with high-priced ones.

Whenever there are restrictions to export trade regarding prices/quantity or persons, the chances of bad practices increase because of high short-run profitability.

To summarise, some of the benefits of free *Basmati* market and open private export trade are: domestic prices move in line with the international prices, higher farm prices and higher production, flexible export prices and lower profit margin on export which in the long run limits the entry to genuine traders who would be interested in improving the quality of the product and the cultivation of the international market.

Moreover, with free entry and flexible prices, the profit-maximisation motive on the part of the private traders would help to make the best use of the domestic resources to earn foreign exchange.

Since, the level of export bonus influences the profitability of exporting *Basmati* rice, the quantity exported can be manipulated through the export bonus. As a next step, we would like to discuss the economically desirable level of exports and the level of export bonus.

3'Another similar situation could be when the government procures rice at low prices and though sells some limited quantities at high prices to a few private traders for export, yet allows a percentage of export bonus which makes the business highly profitable.

V. RATIONALITY OF INCREASING THE PRODUCTION AND EXPORTS OF FINE RICE

Iii the light of our discussion in the previous two sections, it seems obvious that the question about the economic desirability of increasing the production and exports of fine rice to various levels can be answered by a reference to the relative costs and benefits involved.

Starting from the world market side, we estimated in Table VI that the price for exporting a quantity of 1,75,000 tons is Rs. 26.25 to Rs. 27.98 per maund. Supposing the carriage, storage, handling, *etc.,* charges for moving the rice to on board ship are Rs. 5.00 per maund and allowing Rs. 1.00 as the profit to the exporter, the price that could be paid to the farmer would be Rs. 20.25 to Rs. 21.98. These prices are lower than those the farmers get at present. Without a subisdy, such quantities of fine rice cannot be exported.

At present, rice exports are subsidised through an export bonus of 20 per cent. With 20-per-cent export bonus, the exporter should be able to receive Rs. 34.12 to Rs. 36.37 per maund, and allowing for export expenses and profits, the farmer could be paid up to Rs. 28.12 to Rs. 30.37. If the price necessary to create an exportable surplus of 1,75,000 tons falls within the range of Rs. 28.12 to Rs. 30.37, the rice export needs no more subsidy than its present level.

However, in order to create an exportable surplus of 1,75,000 tons, the present estimated production of fine rice (2,50,000 tons) must increase by roughly 50 per cent on the assumption that three-fourth of the increase in production is cxported32. The crucial question is whether the present production level of fine rice could be increased by 50 per cent with a price increase of Re. 0.12 to Rs. 2.37 per maund or through other factors.

It is currently estimated that during the third-five-year-plan period, the water supply in the Northern Zone will be increasing by 50 per cent as a result of the development of surface and groundwater. Assuming that the water supply increases by 50 per cent, the fine rice acreage or yields in Region A can be supposed to increase proportionatelyA. A 50-per-cent increase in fine rice acreage or yields, due to the increased water supply, will be sufficient to create an exportable surplus of 1,75,000 tons without any change in the present price paid to the farmers. Therefore, it can be said that the Planning Commission's target of 1,75,000 tons of fine rice exports seems feasible in the light of the assumed supply and demand conditions by 1970.

320ne-fourth of the production is assumed sufficient to meet seed requirements and farmers' consumption.

33It **is believed that adequate and controlled water supply (alone) can raise the average rice yields by roughly 50 per cent in Region A.**

However, for any fine-rice export target substantially higher than the Planning Commission's target *(i.e.,* 2,50,000 and 60,000 tons) to be feasible from the supply side, the present price paid to the farmers must increase. If our projected 'off-take' of Pakistan fine rice is of the right orders of magnitude, it would not be possible for the exporters to pay the farmers even the present procurement price. For example, to dispose off 2,50,000 tons of fine rice, the international price is estimated to be Rs. 24.52 (Table VI). Allowing Rs. 6.00 for carriage, handling, and other expenses, and profit, the exporter will be able to pay the farmers a maximum price of Rs. 24.08 per maund at 20-per-cent: bonus (assuming the premium on bonus vouchers to be 150 per cent).

On way of enabling the exporters to pay the farmers more than the present price could be to raise the export bonus from its present level of 20 per cent. A bonus of 30 per cent will enable the exporter to pay the farmers, Rs. 26.85 and a bonus of 50 per cent, Rs. 32.41. The ability of the exporter to pay more and more to the farmer increases as the export bonus is increased.

Whether it is desirable to increase the production and export of fine rice to a level higher than 1,75,000 tons depends upon the maximum export-bonus percentage that could be offered, and this depends upon the shadow price of the foreign exchange. At present, the rupee is estimated (crudely) to be overvalued by from 50 to 55 per cent, and it may be argued that this justifies an export bonus of 33.3 to 36.6 per cent". But the important thing to know is how much the rupee will be overvalued by 1970? So long as the economic cost of creating exportable surplus is equal to or falls short of the economic benefits from the additional foreign-exchange earnings, the increased production and export are justified.

We have discussed the planned quantity of 1,75,000 tons. Our discussion can be extended to levels higher than that, however. Quantities much larger than the above level are bound to be enormously costly in terms of domestic and foreign-exchange resources. Therefore, the aim of exporting higher quantities seems unjustified at our present level of knowledge.

VI. CONCLUSION

The information presented in this paper shows that the production of line rices could be raised substantially through creating adequate water supply and sufficient economic incentives. However, it was noted that the costs of increasing the production of fine rices to levels more than two to three times the present level will be very high in terms of water, foreign exchange, and other crop alternatives. i

3< *See* [28, p. It],

On the international demand side, we estimated the price elasticity of demand for fine rices to be elastic within the price range of $180 to $140 per ton. We found the Planning Commission's target of exporting 1,75,000 tons of fine rice to be feasible though the foreign-exchange earnings would fall short, unless concerted efforts are made to cultivate the international market to improve the quality of the product and to adopt more suitable organisational and procedural arrangements for exports.

Our analysis raises serious economic questions about increasing the production and exports of fine rices to levels much higher than the Planning Commission's target.

It is clear from our discussion that the present policy and institutional framework for the procurement and exports of rice leads to low prices for the growers, and to rigidity of export prices. Rigidity of the export prices is likely to cause national loss of foreign exchange, since the demand for fine rice is elastic. The present policy and institutional framework should change in favour of a free domestic rice market and an open private export trade. Such a change would incorporate better prices to the growers, a likely increase in the exportable surplus, flexibility in the export prices, introduction of other varieties of rice in the international market, improvement of the quality of the product and the incentives to cultivate the world market in favour of Pakistan.

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Appendix A

TABLE A-1a

MEAN TEMPERATURE (MAY TO DECEMBER) AND ITS SUITABILITY FOR BASMATI GROWTH (EARLY AND LATE)

Centre	May	June	Early growth suitability for May-June	July	August	Early growth suitability for July-August	September	October	November	Flowering and ripening suitability for October-November	December	Flowering and ripening suitability for November-December	Suitable trans-planting time	Late sowing and yield
1. Lahore	88.9	93.6	Satisfactory	89.5	87.7	Satisfactory	86.0	77.9	65.9	Satisfactory	57.6	No	July-Aug.	—
2. Lyallpur	88.0	93.7	Satisfactory	90.4	89.1	Satisfactory	86.7	78.6	66.7	Satisfactory	58.0	No	July-Aug.	—
3. Jhelum	87.2	92.4	Satisfactory	88.2	85.7	Satisfactory	85.1	75.6	64.7	Satisfactory	56.3	No	July-Aug.	—
4. Montgomery	91.5	94.0	Very good	91.7	89.8	Satisfactory	86.7	79.6	77.5	Satisfactory	57.2	No	July-Aug.	Loss in yield
5. Hyderabad	92.9	93.6	Very good	90.4	88.5	Satisfactory	87.4	84.8	75.7	No	67.1	Satisfactory	Aug.-Sep.	Loss in yield
6. Sukkur	92.7	96.4	Very good	93.4	91.5	Good	89.3	83.0	72.2	No	63.5	Satisfactory	Aug.-Sep.	Loss in yield
7. Karachi	87.3	88.5	Satisfactory	85.9	84.0	Satisfactory	83.9	81.5	74.4	No	66.0	Satisfactory	Aug.-Sep.	—
8. Jacobabad	95.4	99.4	Satisfactory	96.8	93.4	Very good	90.0	81.4	69.7	No	60.2	Satisfactory	Aug.-Sep.	—
9. Multan	91.1	95.7	Very good	94.0	90.9	Good	82.2	79.0	66.9	Satisfactory	57.6	No	July-Aug.	Loss in yield
10. Khushab	90.0	94.4	Very good	92.3	90.4	Good	87.4	78.5	76.3	Satisfactory	56.6	No	July-Aug.	Loss in yield
11. D. I. Khan	89.1	94.6	Satisfactory	93.0	90.8	Very good	87.5	77.5	65.3	Satisfactory	56.4	No	July-Aug.	—

Note: Mean temperature is in degrees Fahrenheit, and is an average for the period 1951-60.

Source: Mean temperature data are from the Meteorological Department, Government of Pakistan, Karachi.

TABLE A-1b

AVERAGE RELATIVE HUMIDITY

Centre	Average (September-November)	Range (September-November)	Remarks Suitability for the ripening season of *Basmati* rice
	(per		
Hyderabad	60	53-69	Suitable but more humid
Sukkur	63	58-71	Not suitable, too humid
Jacobabad	61	57-70	Not suitable, too humid
Multan	36	33-40	Not suitable, dry
Khushab	32	30-36	Not suitable, dry
Dera Ismail Khan	65	61-69	Not suitable, too humid
Lahore	42	37-47	Suitable
Lyallpur	37	35-43	Not suitable, little dry
Montgomery	64	60-69	Not suitable, (oo humid

Source: [2, Table 6J.

TABLE A-2a

PERCENTAGE COMPOSITION OF RICE PRODUCTION/AREA

Area group	District	Fine quality (*Basmati, Hansraj, Mushkan, Permal*)	Medium quality (*Begmi*)	Coarse (red rice, *etc.*)
		(.....*percentages*.....)		
1.	Gujranwala	60-65	30-35	5-10
	Sheikhupura	55-60	30-35	10-15
2.	Sialkot	35-35	40-50	25-30
	Lahore	,,	,,	,,
	Gujrat	,,	,,	,,
	Montgomery	,,	,,	,,
	Lyallpur	,,	,,	,,
	Jhang	,,	,,	,,
3.	Multan	20-25	40-50	35-40
4.	Bahawalpur	10-15	20-25	60-65
	Bahawalnagar	,,	,,	,,
	Rahim Yar Khan	,,	,,	,,
		(*Sugdasi*)		(*Joshi* and *Kangni*)
5.	Dadu	5-10	—	90-95
	Larkana	,,	—	,,
	Jacobabad	,,	—	,,
	Sukkur	,,	—	,,
6.	Khairpur	2-3	—	97-98
	Hyderabad	,,	—	,,
	Nawabshah	,,	—	,,
7.	Sanghar	—	—	100
	Tharparkur	—	—	

Source: Based on a survey conducted in 1963 by the Marketing Department of the Ministry of Food and Agriculture, Government of Pakistan, Karachi.

TABLE A-2b

ESTIMATED PRODUCTION OF FINE RICE IN WEST PAKISTAN

District	Production of rice (all kinds)						Production of fine rice					
	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
	(*in 000 tons*)											
1. Gujranwala	95.1	110.4	113.1	144.5	133.5	149.3	57.0	66.2	67.7	86.7	80.1	89.5
Sheikhupura	56.5	90.9	82.2	90.3	101.0	90.7	31.0	49.9	45.2	49.6	55.5	49.9
2. Sialkot, Lahore, Gujrat, Montgomery, Lyallpur and Jhang	114.0	151.2	175.1	207.0	215.3	220.2	34.2	45.3	52.5	62.1	64.5	66.0
3. Multan	7.1	6.2	6.2	8.3	9.4	8.4	1.4	1.2	1.2	1.6	1.8	1.8
4. Bahawalpur, Bhawalnagar and Rahim Yar Khan	16.1	12.9	15.6	15.7	15.8	18.8	1.6	1.3	1.6	1.6	1.6	1.8
5. Dadu, Larkana Jacobabad and Sukkur	397.1	419.0	312.4	370.9	438.1	408.9	19.8	20.9	16.0	18.5	21.9	20.4
6. Khairpur, Hyderabad and Nawabshah	70.3	81.0	95.6	82.3	94.2	66.2	1.4	1.6	1.9	1.6	1.8	1.3
7. Sanghar and Tharparkur	16.8	17.0	16.6	9.9	13.4	16.6	—	—	—	—	—	—
Total:	**773.0**	**888.6**	**825.8**	**928.9**	**1020.7**	**979.1**	**146.4**	**186.4**	**186.2**	**221.7**	**227.2**	**230.7**
Rice procured	—	—	—	—	—	—	—	74.8	—	97.7	93.2	104.2

TABLE A-3

ACREAGE UNDER THE MAIN KHARIF CROPS
(Average: 1961/62—1963/64)

District (1)	Rice (all kinds) (2)	Rice (fine) (3)	Cotton (4)	Sugarcane (5)	Maize (6)
	(.....*00 acres*.....)				
Region A					
1. Sialkot	2085	730	246	540	452
2. Gujranwala	3579	2147	294	354	114
3. Sheikhupura	2364	1300	555	505	336
4. Lahore	856	300	920	574	210
Total:	8883	4476	2097	1972	1113
Region B					
1. Hyderabad	2749	83	2564	205	23
2. Dadu	1405	70	28	65	
3. Thatta	2527	126		10	20
4. Sukkur	2139	107	73	18	8
Total:	8820	386	2666	299	45

Sources: *i)* Bulletins issued by the Department of Marketing Intelligence and Agricultural Statistics, Ministry of Food and Agriculture, Rawalpindi.

ii) Column (3): computed on the basis of Appendix of Table A-2a.

TABLE A-4

ACTUAL AND THE MAXIMUM POTENTIAL ACREAGE UNDER FINE RICES*

Region	Rice acreage (Average: 1961/62—1963/64)		Proportion of fine rice	Estimated potential proportion of fine rice	Potential acreage Cel. (2) x Col. (5)	Approximate yield per acre	Potential production	Total potential production with an allowance for other areas
	AHkhds	Fine varieties						
(1)	(2)	(3)	(4)	(5)	(fi)	(7)	(8)	(9)
	(fifi acres		*(ner cent.*		*(00 acres)*	*(mawids)*	*(nn tnry:*	
Region A	8884	4531	51	90	*7995*	11	3233	3556
Region B	8821	441	5	70	6175	5.5	1248	1248
Total:	17705	4972	28	80	14170	_	4481	4804

*The maximum potential acreage is estimated on the assumption that a shift from medium and coarse rice will be feasible to the extent as to make the proportions of fine rices in the total acreage equal to those shown in Column (5).

Source: Acreage data are from the bulletins issued by the Department of Marketing Intelligence and Agricultural Statistics, Ministry of Food and Agriculture, Rawalpindi.

TABLE A-5a

ROUGH YIELDS OF FINE AND COARSE RICE

Area	Fine rice	Coarse rice
	(....*maunds per acre*....)	
1. Kala Shah Kaku (District Sheikhupura)	40	60
2. Former Sind Area	30	40

TABLE A-5b

ROUGH GAINS FROM CULTIVATING EARLY MATURING COARSE RICES IN FORMER SIND AREAS

Revenue	Late maturing fine rice	Early maturing coarse rice
(a) Yield (paddy)	30 maunds	40 maunds
Average price	Rs. 15 per maund	Rs. 10 per maund
Revenue	Rs. 450	Rs. 400
Difference	Rs. 50	—
(b) *Second crop (gram)*		
Yield	5 maunds	15 maunds
Revenue	Rs. 115	Rs. 345
Gross revenue	Rs. 565	Rs. 745
Difference	—	+Rs. 180

Source: Personal interviews with the Rice Botanists/Incharge rice farms at Kala Shah Kaku (District Sheikhupura) and Dokri (District Larkana).

Appendix B

TABLE B-l

WORLD RICE ACREAGE AND PRODUCTION
(Average: 1960-62)

Region/Continent	Acreage		Production	
	000 acres	Percentage	000 metric tons	Percentage
World total	292,732	100.00	236,367	100,00
Far East	193,257	66.01	134,150	56.75
China (Mainland)	77,594	26.51	84,300	35.66
Latin America	10,914	3.72	7,953	3.36
Africa	6,358	2.17	2,960	1.25
Near East	2,256	0.77	2,567	1.09
North and Central America	1,137	0.39	2,457	1.04
Europe	865	0.30	1,580	0.67
USSR	247	0.08	230	0.10
Oceania	74	0.02	153	0.07

Source: [10],

TABLE B-2

EXPORTS, IMPORTS AND THE UNIT VALUE OF IMPORTS
(Average: 1960-62)

Region/Continent	Exports		Imports		Unit value of imports U.S. $ per metric ton
	00 metric tons	Percentage	00 metric tons	Percentage	
World total	55,597	100.00	58,617	100.00	120.2
W. Europe	3,058	5.50	5,857	9.99	128.9
E. Europe	220	0.40	2,904	4.95	141.3
USSR	118	0.02	2,861	4.88	134.1
North America	9,130	16.42	470	0.80	181.8
Latin America	2,227	4.00	1,810	3.09	164.0
Near East	2,489	4.48	2,704	4.61	138.7
Far East	37,398	67.24	36,902	62.92	111.5
Africa	480	0.86	4,710	8.03	123.5
Oceania	556	1.00	400	0.68	15.9

Source: [17].

TABLE B-3a

QUANTITY TRADED INTERNATIONALLY, AS A PROPORTION OF THE QUANTITY PRODUCED
(Percentage)

Cereal (1)	Average 1934-38 (2)	Average 1951-53 (3)	Average 1960-62 (4)
Rice	8.5	5.0	3.6
Wheat	13.0	17.0	18.3

Note: USSR is excluded from world totals.

Source: Columns (2) and (3): from [16, Pp. 11-12]
Column (4): from [10].

TABLE B-3b

GROSS WORLD EXPORTS OF RICE AND WHEAT

Cereal (1)	Average 1934-38 (2)	Average 1948-50 (3)	Average 1960-62 (4)
	(.....*000 metric tons*.....)		
Rice	9,650	4,050	5,560
Wheat	11,558	21,635	32,423

Source: Columns (2) and (3): same as Table B-2a and [17].

TABLE B-3c

POST-WAR AND PRE-WAR PRODUCTION OF RICE AND WHEAT

Cereal (1)	Average 1934-38 (2)	Average 1948/49 to 1952/53 (3)	Average 1959/60 to 1961/62 (4)
	(.....*000 metric tons*.....)		
Rice	971,100	106,859	153,500
Wheat	88,910	127,267	177,040
Index			
Rice	100	110	158
Wheat	100	143	199

Note: Production figures exclude USSR in case of both cereals.

Source: Col. (2): from [30].

Appendix C

TABLE C-1

PRICES OF FINE AND COARSE RICE (AVERAGE FOR HARVEST SEASON: NOVEMBER-FEBRUARY) (1953/54 to 1963/64)

Year	FINE RICE		COARSE RICE	
	(Procurement areas) average of Sheikhupura and Gujranwala districts	(Non-procurement areas) average for West Pakistan excluding Col. (2)	(Procurement areas) average for Sheikhupura and Gujranwala districts	(Non-procurement areas) average for West Pakistan excluding Col. (4)
(1)	(2)	(3)	(4)	(5)
1953/54	22.31	26.60	16.25	16.28
1954/55	24.20	24.94	16.70	11.61
1955/56	24.35	26.30	13.41	13.14
1956/57	_	27.07	_	16.16
1957/58	26.56	29.81	19.92	18.77
1958/59	25.75	26.63	14.31	16.86
1959/60	25.50	32.24	17.34	20.01
1960/61	24.16	44.79	16.00	21.43
1961/62	24.94	42.82	16.00	20.22
1962/63	25.95	43.39	16.00	18.44
1963/64	28.00	42.38	16.00	21.18

Source: **[271.**

TABLE C-2a

PROCUREMENT PRICES AND THE QUANTITIES OF RICE PROCURED AND EXPORTED
(1958/59—1962/63)

Year	*Basmati*			*Permal*			*Begmi*			*Kangni*			*Joshi*			*Total*	
	Price in Rs. per maund	Pro-cure-ment	Ex-ports	Price in Rs. per maund	Pro-cure-ment	Ex-ports	Price in Rs. per maund	Pro-cure-ment	Ex-ports	Price in Rs. per maund	Pro-cure ment	Ex-ports	Price in Rs. per maund	Pro-cure-ment	Ex-ports	Pro-cure-ment	Ex-ports
1958/59	25.00	51,794	42,264	20.00	21,176	14,214	17.00	32,340	27,395	16.00	47,156	—	15.00	156,122	6,999	358,578	100,872
1959/60	—	—	66,675	—	—	20,206	—	—	23,466	15.00	38,453	88	14.50	82,136	—	120,589	110,435
1960/61	25.00	76,926	74,963	19.00	20,782	18,917	16.00	22,521	20,517	16.00	35,711	—	15.50	140,515	10,682	296,455	127,042
1961/62	25.00	76,103	72,204	18.00	17,838	15,084	16.00	20,248	27,788	16.00	47,758	9,948	15.00	162,497	44,419	324,444	173,443
1962/63	26.00	87,129	64,511	18.00	17,958	16,201	16.00	30,203	29,178	16.00	68,900	—	15.50	182,480	6,009	386,670	115,899
1963/64	28.00	94,689	*n.a.*	18.00	14,186	*n.a.*	16.00	27,174	*n.a.*	16.00	65,219	—	15.50	152,798	*n.a.*	354,057	*n.a.*

Note: n.a. means not available.

Source: Based on the communication with the Ministry of Agriculture and Works (Food and Agriculture Division), Food Wing, Government of Pakistan, Rawalpindi.

TABLE C-2b

POTENTIAL MARKETABLE SURPLUS AND THE ABSORPTION OF RICE (BASMATI AND PERMAL) IN NONPROCUREMENT AREAS OF WEST PAKISTAN

Year	Estimated production	Estimated marketable surplus 3/4 of Col. (2)	Procurement	Absorption Col. (3) *minus* Col. (4)	Quantity procured as a proportion of qty. produced	Difference between nonprocurement & procurement prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(.....*000 tons*.....)				(*Percentage*)	*Rs.* (*per maund*)
1957/58	146.4	109.8	—	109.8	—	—
1958/59	186.4	139.8	73.0	66.8	39.2	0.88
1959/60	186.2	139.7	86.9*	—	—	6.74
1960/61	221.7	166.3	97.7	68.6	44.1*	20.63
1961/62	227.2	170.4	105.1	65.3	46.3	17.89
1962/63	230.7	173.0	108.9	64.1	47.2	17.44

*During 1959/60, there was no official procurement of *Basmati* and *Permal* rice. But a quantity of 86.9 thousand tons was exported.

Source: Based on Tables A-2b and C-2a.

Note: The changes are computed by dividing the difference by the previous figures.

Some Aspects of **Interwing** Trade and Terms of Trade in Pakistan

Nurul Islam

This chapter first appeared as an article in the Spring-1963 issue of *The Pakistan Development Review.* The study was undertaken by the author when he was Professor of Economics, Dacca University, East Pakistan.

The author alone is responsible for errors and opinions expressed herein.

Professor Islam is at present the Director, Pakistan Institute of Development Economics.

Some Aspects of Interwing Trade and Terms of Trade in Pakistan

Nurul Islam

A study of interregional trade in Pakistan affords an interesting case study of the working of an economic union as well as of the development of trade relations between a relatively more and a relatively less developed region. The central purpose of this paper is to construct a number of basic statistical series bearing on interregional trade in Pakistan and to attempt statistical tests, insofar as it is feasible on the basis of available data, of a number of hypotheses relating to the pattern of interwing trade as well as to movements in the terms of trade of East and West Pakistan *vis-a-vis* the outside world and between each other.

VOLUME AND PATTERN OF INTERWING TRADE

The movements of goods between East and West Pakistan prior to 1947/48, *i.e.,* prior to the establishment of Pakistan when both were parts of a bigger economic union, are not recorded. However, from what is known about the state of their economic development during that period as well as the nature of products produced within each, it seems a legitimate inference that the flow of trade between them was very meagre. Since 1948, there has been a considerable increase in the absolute volume of interwing trade. Moreover, there has been an increase in the relative importance of interwing trade *vis-a-vis* foreign trade. The ratio of interwing trade to the total of interwing and foreign trade increased from 6.2 per cent in 1948/49 to 17.8 per cent in 1959/60. The average ratio during the years 1955-60 was 11.2 per cent [9, December 1960, Pp. 1137 and 1674], The increase in interwing trade combined the effects of both "trade

creation" and "trade diversion". There was very little or no trade creation in the sense of new trade created as a result of a redirection of the pre-existing pattern of economic activities or a reallocation of productive resources away from existing employment in each wing, as dictated by their respective comparative advantages. Both wings were very poor in terms of industrial development and were each producing mainly agricultural commodities based on their peculiar climatic conditions and characteristics of soil. The development of interwing trade relations did not involve either wing in restricting or abandoning any of its pre-existing lines of production and substituting imports from the other wing. However, with the growth of population and income in both wings, there was additional demand created for each other's goods and consequently the development of a new interregional trade depending upon *a)* the relative income elasticities of demand of each for the goods of the other and *b)* the degree of restrictions on imports from abroad as a source of supply.

The volume and pattern of interwing trade represent, therefore, the combined effects of *a)* a progressive substitution of imports from abroad by means of quantitative restrictions and tariffs, *b)* the pattern of economic development and industrialization of both wings, and *c)* their lelative rates of growth of income and population. While total imports from abroad have increased, especially in the field of raw materials and investment goods, domestic production in the field of consumer goods has partially, or in some cases completely, substituted for imports from abroad. The combined markets of the two wings were large enough for the establishment of new industries on the basis of import replacement. In such industries as paper, newsprint, cement, chemicals, metal products and engineering, economies of scale are important and a large size of the market is a necessary condition for an efficient production. The evolution of the pattern of interwing trade, especially in manufactured goods, has been governed by the choice of location of new economic activities as between the two wings. Ideally, within an economic union or a free-trade area, regional specialization should follow the lines of comparative advantage. As between areas at different stages of economic development, it is the dynamic rather than the static concept of comparative advantage that is important. The application of the static concept of comparative advantage places East Pakistan, in a number of fields, at a disadvantage in terms of current costs because the basic social and economic overhead facilities such as roads, transportation and communications, supply of power and skill, *etc.,* are yet undeveloped so that the present cost ratios of various industries in East Pakistan do not reflect their long-run relative efficiency *vis-a-vis* similar industries in West Pakistan. This initial disadvantage tends to have cumulative effects. New industries in the private sector have tended to concentrate in West Pakistan with all its advantages and also with its nearness to the seat of government which administer the commercial and industrial licensing of imports as well as the control of capital issues.

The pattern of economic development of the two wings in the last few years reveals a number of characteristics relevant to the composition of interwing trade. East Pakistan is relatively less industrialized than West Pakistan. As late as 1957, East Pakistan's share in large-scale manufacturing industry, as revealed in the Census of Manufacturing Industries, was very low. She had 18 per cent of the total number of establishments covered in the census in 1957, and shared about 30 per cent of their average daily employment and 26 per cent of their gross value of products, respectively [4], The differences in the pattern of industrialization in the two wings govern the nature of manufactured goods traded between them and are shown in Table I [4].

TABLE I

DISTRIBUTIONS OF INDUSTRIES BETWEEN TWO WINGS

Industry	% of total establish-ments in East Pakistan	% of total gross output originating in East Pakistan
Basic-metal industries	4	2
Electrical machinery	6	2
Other machinery	8	5
Footwear, *etc.*	7	4
Non-metallic minerals	15	13
Rubber products	12	15
Metal products	15	21
Transport equipment	16	not available
Tobacco	18	not available
Textile	11	24
Chemicals and chemical products	20	26
Printing and publishing	34	19
Beverages	29	20
Food	40	23
Leather and leather products	43	37
Wood and cork	41	51
Paper and paper products	50	84

Except in food, beverages, wood, printing, paper, and leather industries, an overwhelming proportion of the output of many major branches of industry originates in West Pakistan with the result that with increases in the scale of production many such products tend to replace imports from abroad and are exported to the East Wing. The location of a number of industries is raw material-oriented, such as cotton textiles and certain metal products in West Pakistan and paper products and jute goods in East Pakistan. However, because of long distances, high costs of transport and handling of finished products in interwing trade, the local market is large enough to allow the production of certain products on the basis of raw material imported from the

TABLE II

RELATIVE IMPORTANCE OF IMPORTED RAW MATERIALS

Industry group	Total raw materials	Improted raw materials	% ratio of imported raw materials to total
	(in million rupees)		
Food and beverages	632.8	25.5	4.0
Tobacco/cigarettes	83.0	7.2	8.7
Textiles	729.0	89.5	12.3
Footwear and apparel	42.0	negligible	–
Leather and leather products	35.5	6.5	18.3
Rubber products	8.5	7.2	8.5
Pulp, paper and paper products	30.4	8.6	28.3
Printing and publishing	28.5	8.0	28.1
Chemicals and petro-chemicals	88.8	54.8	61.7
Non-metallic minerals	31.2	4.8	15.4
Basic metals	64.5	45.0	69.8
Metal goods	57.0	43.0	75.4
Machinery	28.5	16.0	56.1
Electric machinery, *etc.*	29.5	19.0	64.4
Transport equipment	36.0	31.0	86.1
Miscellaneous industries	1,142.5	9.0	0.8

Source: [8],

other wing at a cost which does not compare unfavourably with the import price from the other wing, as in the case of cotton textiles in East Pakistan. There are many industries which are heavily dependent on raw materials imported from abroad so that nearness to the source of raw material does not weigh as an important factor in their location. Nevertheless, built-in advantages emanating from a greater state of development in West Pakistan tend to attract them there. The relative importance of imported raw materials in some important industries is shown in Table II.

As is evident from above, many industries such as chemicals, petro-chemicals, basic metals, metal goods, machinery, electrical machinery, transport equipment, *etc.,* are heavily dependent upon imported raw materials; and from the point of view of efficient and economical production, their location in either wing is dictated by the availability of overhead facilities and by import and licensing

TABLE III

TOTAL VALUE OF IMPORTS: ANNUAL AVERAGES

	West	*East*
Imports from Overseas*	*(... .in million*	*rupees....)*
1948/49 \ 1951/52 J	1,182	471
1952/53 \ 1954/55 /	875	327
1955/56 \ 1959/60 /	1,325	553
Interwing Trade*"	*Imports of West*	*Imports of East*
1948/49 \ 1951/52 *f*	49	225
1952/53 \ 1954/55 /	277 277	303 563
1955/56 \ 1959/60 /		

***[9,December 1960], The period upto 1951/52, when Open General Licence (O.G.L.) was suspended, may be considered a period of liberal *imports from* abroad *and is* taken as *the* base period for comparison with subsequent developments. The five years, 1955-60, are the years of the First Five Year Plan and, hence, may be considered another benchmark for comparison. *(See* Appendix Tables A-t and A-2 for more detailed data).**

policy of the government. Insofar as interwing trade in agricultural commodities is concerned, it is based upon distinctive climatic and physical or natural characteristics or endowments of both the regions leading to a specialization of West Pakistan in cotton, wool, and wheat and of East Pakistan in jute, tea, and rice.

The relative growth of the total value of imports of East and West Pakistan from overseas and from each other is shown below. However, from year to year, imports from abroad have been subject to varying and fluctuating quantitative restrictions depending upon the level of export earnings, foreign-exchange reserves and availability of foreign aid and loans.

The imports from abroad of EasfPakistan are substantially less than those of West Pakistan and the absolute difference between them has increased over time. The rate of increase of West Pakistan's imports from East Pakistan has been higher than that of the imports of East from West', but the absolute value of East Pakistan's exports to West was very small in the initial stages. However, average imports of East from West during the first-live-year-plan period were 85 per cent greater than in the period between the suspension of OGL and the beginning of the plan while the increase was only 70 per cent in the case of West Pakistan's imports from East. Moreover, the absolute deficit of East's interwing trade has considerably increased over time.

It is difficult from available data to separate the effects on interwing trade of trade diversion from those of the growth of income and population. An attempt is made, however, to obtain a measure of the extent of trade diversion on the basis of *a)* changes in the percentage of total imports of each wing coming from the other and *b)* changes in the percentage of total exports of each wing going to the other. More specifically, one can also consider the changes in the share of imports of particular commodities originating in the other wing, as well as new commodities, formerly imported from abroad, which are now imported from the other wing. Generally speaking, the importance of West Pakistan as a source of imports for East is not only significant but also has grown over time. The percentage of total imports of East which is derived from West has grown from 34.2 per cent (average of the years 1948/49 to 1952/53) to 47.6 per cent (average of the years 1955/56 to 1959/60) whereas the comparable percentage in the case of West has gone up from 5.8 per cent to 17.7 per cent in the same period. The percentage of total exports of West Pakistan going to East has increased from 21.8 per cent during 1948/49 to 1952/53 to 47.9 per cent during 1955/56 to 1959/60, whereas the precentage of total exports of East going to West has increased from 8.2 per cent to 22 per cent in the same period, (see Appendix Tables A-1 and A-2). It is clear that East Pakistan as a market has

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iIn the interest of brevity and avoiding repetition, the author has used the words East and West for East Pakistan and West Pakistan, respectively.

been consistently and considerably more important for West Pakistan than West as a market for East. Thus, the diversion of the source of Easfs imports from overseas to West Pa ki sUfT has been ofparticular importance.

An attempt is made to examine how the substitution of imports into East Pakistan from overseas by imports from West Pakistan has worked in the case of specific commodities. A study of East Pakistan's imports from West Pakistan and abroad of specific item or items which are very similar or are close substitutes reveals that in the case of a number of commodities there has been an absolute decline in imports from abroad accompanied by a large compensating increase in imports from West Pakistan during the period between 1948/49 and 1959 (Appendix Table A-3). The examples of such commodities are boots and shoes, leather, metals and ores (of certain types), rape and mustard seed oil, provisions and oilman's stores, spices, salt, seeds (rape, mustard and other nonessential), soap, sugar (including molasses), cotton twist and yarn, cotton piecegoods, and manufactured tobacco. In the case of a number of other commodities such as drugs and chemicals, gums and resins, nonessential and non-vegetable oils, other textiles, cement, *etc.,* imports from both sources have gone up, while those from West have gone up faster. Of course, in the case of capital goods and semi-finished raw materials, the increase in imports from abroad considerably exceeded that from West.

An examination of the trends of a few East Pakistani export commodities which are important in interwing trade such as tea, tobacco, seeds, spices, drugs and medicines, *etc.,* also shows that the proportion of total exports going to West has increased (Appendix Table A-4). In addition to the changes in the destination of exports and imports, a number of new commodities have been introduced in interwing trade. In most cases, these commodities were either wholly exported to or imported from abroad. To illustrate, the proportion of new commodities *(i.e.,* not exported in 1948/49) in East Pakistan's exports to West Pakistan constituted 15 per cent of total exports to West in 1955/56 and 19.4 per cent in 1959/60. Similarly, the proportion of new commodities in the imports of East from West was 9.2 per cent of total in 1955/56 and increased to 13.5 per cent in 1959/60 (Appendix Tables A-5 and A-6).

The considerable extent of diversion of imports from overseas to regional sources resulted from restrictions on imports from abroad. This can be illustrated with reference to the case of imports of East Pakistan from West Pakistan. Let U represent the ratio of East's imports from West to East's imports from abroad, and let Z represent the overseas imports of the whole of Pakistan. Since both the variables reveal trends over time and are serially auto-correlated, a first-difference transformation is used in the regression analysis. Accordingly, the following equation has been estimated2;

The June-July figures (instead of calendar year) for the years 1948/49 and 1959/60 have been used.

$$AU = 63.16 \quad 0.61 \; AZ \quad (0.19)$$

$$R = -0.73$$

The relationship postulated in the above equation is statistically very significant. The composition of East's imports from West also lends support to this hypothesis. Industrial imports constituted 50.3 per cent of the value of total imports of East from West as early as 1950/51 and the relative importance of industrial goods has recorded an increase reaching 62 per cent in 1953/54 and around 60 per cent in 1959/60. The substitution for foreign imports has taken place mainly in the field of manufactured consumer goods.

INTERWING TERMS OF TRADE

The analysis of gains from interregional trade has two important aspects. First, there is the effect of the diversion of trade from overseas to the other wing in terms of the cost and price of interregional imports, *i.e.,* the extent to which impoits from the other wing are higher priced than similar imports from overseas. Secondly, given the development of trade between the two wings, there is the movement over time of export and import prices in interwing trade. As for the first problem, it is widely recognized that in many areas of import replacement domestic production has involved higher cost of production and price. It is not only the effect of tariff rates in diverting imports from low-cost foreign sources of supply to higher-cost domestic source located in the other wing, but also the comparison of the prices of imports from the other wing with the prices of similar imports from abroad, inclusive of high tariff rates which are relevant. In many cases, it is the existence of stringent quantitative restrictions which makes imports from other wing worthwhile since domestic prices of overseas imports under the "quota" restrictions are higher than "landed costs plus tariffs". No attempt has been made here to make any comparison of cost and price of interregional imports with foreign imports at a static level. On the other hand, the problem under study in this paper concerns itself with the extent and nature of the movements in import and export prices of either wing in international as well as in interwing trade, given the initial price structure of interregional as well as foreign imports and exports. It is to be noted that while the movements of export and import prices in interwing trade have taken place in an environment of common monetary and fiscal policies and in the absence of exchange and trade restrictions, some of the characteristics of international trade are also present such as great distance, inadequate and slow transport and communications, and high costs of movement as well as immobility of factors, especially of labour, between the wings. Moreover, the different stages of economic development of the two wings provide scope for a case study of the movements of terms of trade between a more and a less developed region, as well as of the terms of trade of each with the outside world. In addition, the

movements of relative prices of groups of commodities such as agricultural and industrial commodities are examined. East Pakistan, West Pakistan, and trading partners of both in the outside world may be arranged in an ascending order of levels of income or stages of development. The movements of interwing commodity terms of trade have important implications for real income in both wings. The income terms of trade reveal how the purchasing power of exports of each wing iii terms of imports from the other has changed. Under these conditions, the usual presumptions or hypotheses about terms of trade may be stated as follows:

1) The terms of trade of both East and West Pakistan with the outside world should tend to deteriorate and the terms of trade of East should tend to deteriorate more than those of West; *2)* the terms of trade of East with West should tend to deteriorate over time. It has also often been suggested that the terms of trade of agricultural commodities *vis-a-vis* industrial commodities tend to move against the former. In the following pages, available data are examined or analysed in order to test the above hypotheses.

In the first place, a large number of indices relating to the export and import prices of each wing in interregional trade as well as in foreign trade are constructed. In addition, an attempt is made to explain such movements. As is evident from below, two sets of terms of trade, one with base in 1950/51 and another with base in 1953/54, were estimated. A number of new commodities such as gunny bag, hessian or gunny cloth, and paper and pasteboard, *etc.,* were introduced in the export trade of East Pakistan only since 1953/54. Similarly, in the same year began the import of cement from West Pakistan. For comparison with subsequent years, an index with 1953/54 as a base seems more representative. The commodities included in this index constituted 80 per cent of total imports and 90 per cent of total exports in 1953/54. Similarly, the index based on 1950/51 represented 78 per cent of total imports and 99 per cent of total of the year 1950/51.

The movements in the terms of trade of East with West Pakistan are shown in Table IV.

The change in weights from base-year to end-year in both the sets of indices is intended to examine the effects of changes in the relative importance of different commodities on the terms of trade. As is evident from the moving averages, the first set of terms of trade (with 1950/51 as base *i.e.,* Columns (A) and (B)) moved in favour of East Pakistan until 1956/57 and then went down. A linear trend fitted to the series A shows the following results: $A = 99.9 + \underset{(3.66)}{7.19}t$, indicating a favourable trend. However, the second set of terms of trade (with 1953/54 as base) moved against East Pakistan (Columns (E) and (F)). The linear trend of

E is given by E = 126—2.82t (4.21). The statistical reliability of this trend is doubtful, especially in view of the shortness of the series. The change in weights does not alter the above conclusions but corroborates the trends revealed in the indices based upon base-year weights.

The separate movements in export and import prices of East Pakistan which lie behind the movements in terms of trade are given in Table V3.

TABLE IV

INTERWING TERMS OF TRADE

Year	(A)	.(B)	(C)	(D)	(E)	(F)	(G)	(H)
1950/51	100		100					
1951/52	100	100	88	94				
1952/53	99	105	93	99				
1953/54	115	128	116	116	100		100	
1954/55	171	157	138	135	129	121	115	III
1955/56	186	185	151	165	134	135	117	129
1956/57	199	175	206	159	142	126	154	122
1957/58	139	152	120	142	102	109	96	112
1958/59	119	141	101	122	83	100	85	97
1959/60	166		146		115		110	

Notes:

(A) —terms of trade with quantity weights of the year 1950/51, which is the base-year.
(B) —three-year moving averages of (A).
(C)=terms of trade with same commodities as (A) but with weights based on the quantities of the year 1959/60.
(D)-three-year moving averages of (C).
(E) —terms of trade with base-year 1953/54 and with quantities of 1953/54 as weights; the quantities of (E) include a number of new commodities introduced in interwing trade only since 1953/54.
(F)=three-year moving averages of (E).
(G)=terms of trade including same commodities as (E) but weights are the quantities of the year 1959/60.
(H)=three-year moving averages of (G),

3The weights are ail base-year quantities.
(A) and (C)=the export-price indices with two different base years and their respective commodities
(E) and (G)=the import-price indices with two different base years and their respective commodities
(B) =moving averages of (A)
(D) =moving averages of (C)
(F) =moving averages of (E)
(H) = moving averages of (G).

The figures in the brackets below the coefficients in various equations are standard errors of estimate.

TABLE V

Year	*Export price*				*Import price*			
	(A)	(B)	(Q	<D)	(E)	(F)	(G)	(H)
1950/5 J	100				100			
1951/52	91	93			91	93		
1952/53	88	98			89	94		
1953/54	116	119	100		101	94	100	
1954/55	152	142	119	112	89	92	92	93
1955/56	158	(71	118	129	85	92	88	95
1956/57	203	177	149	131	102	103	105	106
1957/58	169	172	126	130	122	115	124	122
1958/59	145	130	115	127	121	116	137	127
1959/60	176		139		106		121	

As is evident from the moving averages of import-price index (with 1950/51 as base) it remained more or less stationary except in the last few years while the export-price index was recording a continuous rise until 1956/57. The fall in export price in the last few years was more severe than the rise in import price and was mainly responsible for Hie deterioration In terms of trade ia the latter years. However, over the period as a whole, there are positive linear upward trends in both (A) and (E) series given respectively by the equations A = 82.30 -f 10.45t and (E) — 86.4 + 2.58t, A higher trend in export-price index than in
(2.70) (1.67)
import-price index explains the upward trend in the terms of trade for the whole period. The deterioration ia the second set of terms of trade is mainly due to a steeper rise of import price. Though both export and import-price indices show upward trend as revealed by the equations (C) — 107 + 4.18t and
(2.80)
(G) 82,6 -f 6.75t, a greater rise in import price caused a decline in terms of
(2.23)
trade. If the first set of indices is converted to a new index with 100 in 1953/54, the same conclusion emerges as from the second set. In other words, in the last two or three years of the period, whichever set is used to indicate the price movements, there has been an adverse movement in the terms of trade. The second set being a shorter series, the impact of decline in the last few years affects the trend in the whole series whereas in the first longer set the rise in

terras of trade in the earlier years is sufficiently high to more than offset the decline in the later years.

Insofar as the volume of trade is concerned, there was an increase in the quantum index of both expoxts and imports of East Pakistan, even though the terms of trade in t he latter years moved against East Pakistan, Ail the indices reveal clear upward trends. This is shown in Table VI.

The income terms of trade of East Pakistan, which is the index of purchasing power of exports or of capacity to import, shows an improvement owing both to an increase in quantity of exports as well as an improvement in the terms of trade except in the last three years. In the last three years, the fall in commodity terms of trade (with 1950/51 as base) has been more thaa offset by

TABLE VI

VOLUME INDEX OF EXPORTS AND IMPORTS OF EAST PAKISTAN

Year	(A)	(B)	(C)	(*>)	(E)	<F>	(G)	(H)
1950/51	100				100			
1951/52	92	114			91	97		
1952/53	151	132			89	97		
1953/54	154	129	100		101	93	100	
1954/55	182	184	126	124	89	92	90	100
1955/56	217	188	145	135	85	92	109	120
1956/57	165	228	135	153	102	103	160	162
1957/58	30!	270	179	172	122	115	217	184
1958/59	346	310	202	180	121	116	174	176
1959/60	284		161		106		136	

Notes'.
(A)=quantity index of exports with base 1950/51
(B)=three-year moving averages of (A)
(C)=quantity index of exports with base 1953/54
(D)=three-year moving averages of (C)
(E)=quantity index of imports with base 1950/51
(F)<= three-year moving averages of (E)
(G)=quantity index of imports with base 1953/54
(H)=three-year moving averages of (G)

the increase in the quantity of exports with the result that income terms of trade *{i.e.,* quantity of exports x terms of trade) have improved. However, the second index of the income terms of trade (with 1953/54 as base) shows a weaker upward trend because the rise in the quantity of exports is partly offset by the fall in the commodity terms of trade, This is given in Table VII,

TABLE VII

INCOME TERMS OF TRADE OF EAST PAKISTAN

Year	(A)	(B)	(Q	fl>)
1950/51	100			
1951/52	92	114		
1952/53	149	139		
1953/54	117	212	100	
1954/55	311	297	163	152
1955/56	403	347	194	183
1956/57	328	383	192	190
1957/58	418	386	183	181
1958/59	412	433	168	179
1959/60	471		185	

Notes:

(A)=in come terms of trade with 1950/51 as base
(B)=moving averages of (A)
(C)—income terms of trade with 1953/54 as base
(D)--moving averages of (C)
The linear trend in (A) and (C) is as follows:

$$(A)\text{--}38.6+45.0t \quad (5.3)$$

$$(C)=1\ 33.00+9.07t \quad (5.4)$$

The movements of export and import prices and of the terms of trade are expected to be governed by the reciprocal supply and demand of both the wings for the traded commodities. The facts analysed above reveal that it is not always that an underdeveloped region suffers from a deterioration in its terms of trade with a more developed region nor does its export price show any consistent downward trend. The variations in export and import prices depend upon

supply and demand of the specific commodities in both the wings. An attempt was made to explain the movements of export and import prices in terms of supply and demand in both the regions. However, paucity of data has been a serious limitation. An index of production of the items exported to the other wing is expected to indicate the amount of export supply taking into account the extent of absorption within each wing. However, an index of production of only a few of the items entering into interwing trade can be constructed from available data. The indices of production of exportable items as well as some indirect indices of income or growth of demand in both the wings are shown in Table VIK«:

TABLE VIII

	(S B)	(YE)	(Siv)	(Yiv)
1951/52	100	100	100	100
1952/53	108	105	120	103
1953/54	*116*	*120*	145	112
1954/55	118	111	177	123
1955/56	130	98	205	126
1956/57	112	127	221	133
1957/58	108	122	238	143
1958/59	102	110	250	147
1959/60	106	131	258	154

Sj; is the index of production in East Pakistan and consists only of such items as tea, rape and mustard seed, tobacco, ***masur,*** matches, indigenous cloth, hessian cloth and gunny bags. Sjp, indicating the index ***of*** production in West Pakistan, consists of medium, fine, and coarse cloth, cement, cigarettes, kerosene oil, cotton, wheat, rice, gram, tobacco, and rape and mustard seed. These commodities are fairly representative of the commodities entering into trade but do not include all of the latter. Only to the extent that changes in the production of these commodities are highly correlated with the changes in the excluded commodities can these indices represent the variations in the domestic supply in each wing of exportable commodities. Moreover, these indices do not reveal

4 Production indices are based on the data given in [3 ; 7] as well as some unpublished price data from C.S.O. The indices of growth demand or income are obtained from *[2].* The production indices are combined indices of agricultural and industrial commodities in West and East Pakistan, weights being the ratio of the value of agricultural to industrial goods in the exports of East Wing to the other. Ideally, the quantity of each individual item should have been weighted by its relative importance in interwing trade.

anything about the changes in costs of production of the exportable items which influence the terms of trade. The indices of income or growth of demand used in Table VIII (YE and YR/) are different from national income data since the latter include income from the government, service, and trade sectors. However, regional income data for East and West Pakistan separately are not published. The quantity indices used here represent the absorption of a large number of commodities, *i.e.,* both consumption and investment goods. Therefore, they represent a large part of regional expenditure which takes place in East and West Pakistan separately and reveal the combined effects of growth of population and income on expenditure and demand. They may, therefore, be taken to act as indicators, not so much of absolute magnitude of regional demand as of changes over time in the relative magnitudes of regional demand. However, reciprocal demand for each other's goods is not only a function of a growth of income but also of a diversion of demand from extraregional to intraregional sources. It is difficult to quantify the extent of diversion of demand by means of a single variable. Attempts have been made to obtain an indirect measure of the diversion by means of such variables as the ratio of the quantity index of imports from West Pakistan to the quantity index of imports from overseas or the ratio of the quantity index of imports from overseas to the index of regional demand or expenditure. The higher is the former ratio or lower is the latter ratio, it is plausible that the greater will be the extent of diversion of trade. This factor, *i.e.,* diversion of import demand from foreign to regional sources, is more important in the case of East Pakistan.

A number of equations involving various combinations of these variables, such as income or expenditure in each region, supply of exportable items and some indirect measure of the diversion of trade, *etc.,* were fitted to the available data in an attempt to quantify the magnitude of these diverse influences in the determination of the export, and import prices and hence of terms of trade of East Pakistan in intervving trade. A preliminary examination of data reveals that the index of regional demand or expenditure as well as the supply of exportable items has shown a greater increase in West than in East Pakistan. Given a relatively slow increase in supply of East Pakistani exports and a large increase in demand in West Pakistan, export price of East Pakistan is expected to show a relatively more favourable trend than the import price of East from West. However, the prices of imports of East from West in the latter years have been subjected to the influences of other factors such as the diversion of West Pakistani exports to foreign markets under the inducement of export bonus scheme creating a scarcity of commodities exported to East and, thus, raising the import price of East. Even though there has been a relatively slow growth of income and expenditure in East Pakistan, it has been more than adequately reinforced by an increasing diversion of demand from abroad to West Pakistan which has added to the upward pressure on import prices of East Pakistan. Again, the export-price index of East Pakistan, heavily influenced as it is by the

export price of tea, and in later years by the prices of paper and jute products, has been affected by a varying export quota on tea which affects the internal price of tea and, hence, export price to West Pakistan as well as by export bonus scheme which affects the price of jute manufactures. Moreover, the movements of the prices in interwing trade cannot be isolated from the movements of prices of imports from abroad. This is true of both agricultural and industrial prices since imported commodities, including imports under foreign-aid programmes, consist of all kinds of goods. Larger imports of a particular kind from abroad augment domestic supply and, thus, exercise a downward pressure on domestic prices. Again, the prices of some of these commodities have been subjected to varying degrees of government control and, hence, have not been very responsive to changes in supply and demand. Many of these influences cannot be quantified and, hence, have not been taken into account in the equations which have been estimated.

No attempt has been made to estimate the coefficients of an elaborate and large model consisting of a number of simultaneous equations. Instead, experiments are carried out to estimate directly the influences of a number of easily quantifiable price-determining factors in order to explain or assess historically the relative magnitude of price-determining factors in interwing trade. A number of equations explaining the price of imports into East Pakistan have been fitted to the available data and the results are shown below. No satisfactory results are obtained by an equation which seeks to explain price of imports on the basis of total expenditure in East Pakistan and supply in West Pakistan. The better equations estimated by least-squares method seem to be the following:

$$\begin{array}{l} \Delta IV - \quad 1.29 + .03 \quad \Delta Rb \quad + \quad -32 \quad \Delta \; {}^{A} \\ \qquad\qquad\quad (.03) \qquad\quad (.09) \quad Sw \end{array}$$
$$R = .89$$

where all the variables, *i.e.,* $P_{„}$ (price of imports of East from West), (supply of such commodities in West Pakistan), $Q_{„}$ (quantity of imports of East from West Pakistan), Mg (quantity of imports of East from overseas), R,(ratio of the value of imports from West Pakistan to imports from overseas) are expressed in the form of index number. and $R_{„}$ are used to quantify the extent of trade diversion, *i.e.,* diversion of import demand from overseas to West Pakistan.

M_e

The following alternative equations do not improve the results.

$$\begin{array}{l} \Delta P_m = \quad 29.42 \quad + \quad .05 \; \Delta \qquad\quad — \quad .62 \; \Delta Sw \\ \qquad\qquad\quad (.03) \qquad\quad (.67) \end{array} \qquad \begin{matrix} (2) \\ (2) \end{matrix}$$
$$R = .61$$

and $AP_{,,} = 5.31 + .07\ a_{R} - .25\ AS,$ . . . . . (3)
(.04) (.65)
R = .55

The correlation coefficients of the last two equations are not significant even at 20-per-cent probability level while the first equation is significant at 5-per-cent level.

In the case of East Pakistan, the extent of trade diversion is likely to be a more important indicator of demand for imports from West Pakistan, especially since the introduction of the variable indicating income or expenditure does not yied any plausible results. The first-difference transformation of the variables tends to produce better results than the untransformed variables in terms of the expected sign and significance of the coefficients. As it appears from Equations (2) and (3), an increase in supply in West Pakistan is inversely related to the price of imports of East Pakistan while an increased diversion of import demand to West, increasing the demand for the products of the latter, puts an upward pressure on the prices. The magnitude of the influence of the latter factor on price does not appear to be appreciable whereas that of variation in supply on price is of a greater magnitude. However, neither of the coefficients are statistically very significant. The first equation seems to give a best fit to the data in view of a very high multiple correlation coefficient. The variable $Q_{,,}/S$(v represents the ratio of the quantity of imports to the total production of imported goods. This variable may be assumed to represent relative importance of exports of West Pakistan *(i.e.,* imports of East Pakistan) in the total domestic production and availability of such items in West Pakistan. Changes in this variable will depend upon the relative changes in domestic production and in exports to East Pakistan. The greater is the ratio the greater is the pressure on domestic supply exerted in West Pakistan and the greater will be upward pressure on price. This will happen if domestic supply increases at a lower rate than export or if domestic supply falls while export remains the same or falls or increases at even a slower rate. The coefficient of this variable is very reliable in view of its very low standard error compared with the magnitude of the coefficient.

It has been found more difficult to explain the behaviour of export price of East Pakistan by means of the type of equations which have been used to explain import price. The price-determining equation, *i.e.,* $P_{,,}$ = Aj + *ʻYw + foSs* does not give good results. The coefficients estimated by least-squares method are[9]:

5P« = change in price of exports.
change in aggregate income or expenditure in West Pakistan,
***SB* = index of supply of traded commodities in East Pakistan.**
Qx = **change in quantity of exports.**

$$A_{PK} = -7.95 + 2.9\ AYFF - .0006\ ASg$$
$$(4.5) \qquad (1.45)$$
$$R = .28$$

The substitution of $M^{\wedge}_{Q}$ f in place of Yw does not improve the results where Q* is the quantity index of exports of East, *i.e.,* imports of West, and Mjy is the quantity index of imports of West Pakistan from overseas.

$$A\ Px = 15.4 - .099\ A\ M\,»' + .05\ S.$$
$$(.037) \qquad (.96)$$
$$R = .77$$

The coefficients are neither reliable nor plausible. The correlation coefficient of the first equation is not significant even at 20 per cent whereas that of the second equation is significant only at 20 per cent. In the absence of the direct estimation of the influences affecting price, an attempt was made to estimate the demand for East Pakistan's exports in West Pakistan by means of a simple demand equation as follow:

$$AQi — a_{,,} + aj\ A?x - a_{2}\ AY_{,,}$$
$$= 26.12 — 1.98\ AP^{*} + 6.77AYr/$$
$$(.45) \qquad (4.65)$$
$$R = .89$$

The correlation coefficient is significant at 5-per-cent level.

The response of demand to change in income and price is important both in terms of reliability and its magnitude. The increase in demand for East Pakistan's exports to West has been the result of not only a greater increase in total expenditure or income in West Pakistan but also of a considerable responsiveness of demand for East Pakistani goods to increase in income in West. This has been confronted by an inelasticity of production or of supply of exportable items in East Pakistan, as evidenced by the index of production, *i.e.,* S_{iii}. The ratio of the quantity of exports of East Pakistan to the quantity of production of exportable items has shown an upward trend during these years, as shown in Table IX.

This implies that the rate of increase of exports has been higher than the rate of increase of production and that the pressure of an increasing demand has not been matched by a proportionate increase in supply over the period. The equations explaining the movements of export and import prices have also been fitted in their logarithmic transformations but results are neither plausible nor statistically satisfactory.

TABLE XVI

	Q? / **Sb**
1951/52	1.00
1952/53	1.52
1953/54	1.44
1954/55	**1.68**
1955/56	**1.82**
1956/57	1.60
1957/58	3.00
1958/59	3.60
1959/60	2.92

where Q* = quantity index of exports from East Pakistan, and
Sb = index of production of exportable items.

The behaviour of the terms of trade between agricultural and industrial commodities which enter into interwing trade is shown in Table X. For this purpose, the agricultural exports and imports were combined as were the total industrial exports and imports.

The terms of trade, as revealed in the above indices, have moved in favour of agriculture over time. The trend is more pronounced in (C) than in (A). The linear trend of (A) is given by (A) — 80.5 -f 4.86t and that of (C) is given by
(1.27)
(C) = 97 + 5.96t. The change in weights from base-year to end-year (as in (E)
(1.81)
and (G)) reinforces the conclusion derived from (A) and (C). The behaviour of the prices of the specific agricultural and industrial commodities included in these indices does not lend support to the traditional presumption that terms of trade usually move against agricultural commodities. It is to be noted, however, that the indices do not include a few of the most important agricultural commodities in Pakistan such as rice, sugarcane, and raw jute. Accordingly, the indices presented here do not reflect the movements of the relative prices of agricultural and industrial commodities in general.

The separate movements of agricultural and industrial prices which lie behind the movement of terms of trade are shown in Table XI.

TABLE X

TERMS OF TRADE BETWEEN AGRICULTURAL AND INDUSTRIAL COMMODITIES

Year	(A)	(B)	(C)	0>)	(E)	(F)	(G)	(H)
1950/51	100				100			
1951/52	81	88			85	97		
1952/53	82	85			106	92		
1953/54	91	92	100		84	91	100	
1954/55	104	106	106	108	98	93	114	111
1955/56	122	118	119	113	97	100	119	120
1956/57	127	125	115	125	104	109	128	132
1957/58	126	122	140	132	125	118	149	142
1958/59	112	122	140	135	124	116	149	140
1959/60	127		126		98		124	

(A)=Terms of trade with weights of the year 1950/51.
(B)=Three-year moving averages of (A).
(C)=Terms of trade with new commodities and with weights of the year 1953/54.
(D)=Moving averages of (C).
(B)=The same prices as in (A) but with weights of the year 1959/60.
(F)=Moving averages of (E).
(G)=The same prices as in (C) but with weights of the year 1953/54.
(H)=Moving averages of (G),

TABLE XI

INDICES OF AGRICULTURAL AND INDUSTRIAL PRICES

Year	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1950/51	100				100			
1951/52	88	90			109	103		
1952/53	83	91			101	107		
1953/54	101	96	100		111	104	100	
1954/55	104	104	104	104	100	100	98	96
1955/56	107	115	107	113	88	98	90	100
1956/57	133	127	128	127	105	102	111	102
1957/58	142	135	147	143	113	112	105	108
1958/59	131	135	153	114	118	111	109	109
1959/60	131		142		103		113	

tural commodities and quantities of 1950/51 and 1953/54 and (B) and (D) are, respectively, their three-year moving averages. (E) and (G) are indices of industrial commodities based on commodities and quantities of 1950/51 and 1953/54 and (F) and H are their moving averages.

The indices based on the commodities of 1950/51 reveal that while agricultural prices have a consistently rising trend (B), the industrial prices do not have any perceptible trend in any direction (E). The industial prices fluctuated up and down through all the period. The second set of indices starting from 1953/54 which includes a number of new commodities, however, reveals that both agricultural and industrial prices have risen over time but the increase in the agricultural prices has been greater than that in the industrial prices. Even though the terms of trade have moved against industrial goods in interwing trade, the adverse movements in price ratio have been accompanied by an increase in quantities of such goods traded between the wings as well as in the total supply of these specific industrial goods in the economy as a whole, ***i.e.,*** in both the wings taken together. The quantity indices of agricultural and industrial goods moving in interwing trade are given in Table XII.

TABLE XII

VOLUME INDICES OF TOTAL TRADE IN AGRICULTURAL AND INDUSTRIAL COMMODITIES

Year	(A)	(B)	(Q	(D)	(E)	(F)	(G)	(H)
1950/51	100				100			
1951/52	118	116			66	82		
1952/53	131	131			80	121		
1953/54	143	129	100		217	186	100	
1954/55	113	131	76	83	260	266	123	122
1955/56	138	139	74	55	321	332	144	153
1956/57	167	189	106	110	417	453	192	196
1957/58	261	266	152	140	622	490	252	215
1958/59	271	260	163	152	432	**449**	202	300
1959/60	248		142		292		146	

Note: **(A) and (C) are indices of total trade in agricultural commodites. (B) and (D) are their respective three-year moving averages. (E) and (G) are indices of total trade in manufactured goods, and (F) and (H) are their respective moving averages. All indices have base-year weights.**

The increase in the volume of trade in industrial commodities has been at a much faster rate than the increase in that of agricultural commodities. However, in the case of agricultural commodities, the ratio of increase in the volume of trade has been much greater than the increase in total supply or production. In the case of manufactured goods, the rate of increase in production has kept in step with the increase in the volume of trade in them.

The indices of production of agricultural and industrial goods are given in Table XIII.

TABLE XIII

INDICES OF PRODUCTION OF AGRICULTURAL AND INDUSTRIAL COMMODITIES

Year	(SI)	Moving average		Moving average	(Y)	(M)
1951/52	100		100		100	100
1952/53	152	161	94	92	104	75
1953/54	231	219	81	92	116	55
1954/55	275	291	100	94	117	56
1955/56	367	351	101	100	112	46
1956/57	411	411	100	101	130	69
1957/58	455	459	103	101	133	57
1958/59	511	513	101	103	128	43
1959/60	568		104		142	67

Note.i:

(Si) — index of production of industrial goods: includes oigarettes, medium, fine, coarse and indigenous cloth, cement, kerosene oil, hessian cloth, gunny bag, matches.

***($A)* — index of production of agricultural goods: includes tea, tobacco, rape and mustard seed, *masur,* gram, rice (West Pakistan), wheat and cotton. The source for this data is the same as for the production indices of East and West Pakistan, quoted earlier.**

(Y) = index of total national expenditure, as measured by the absorption of commodities in Pakistan, is indicated in [2],

(M) = value of Pakistan imports from abroad deflated by import-price index based on C.S.O. data.

As is generally known, agricultural production has suffered from a stagnation in the past, as is corroborated by its index of production. The manufacturing sector has recorded a considerable progress. An increasing demand for agricultural commodities originating from growth of income and population has impinged upon a relatively inelastic supply of agricultural commodities resulting in a relative rise in their prices.

A number of equations are fitted in an attempt to explain and quantify the factors determining the prices of agricultural and industrial commodities in interwing trade. The equation for agricultural prices is as follows:

$$P_{,i} = a, + a_i S^{A}\_ \quad , + a, Y$$

where P_A is the price index of agricultural commodities, ***Sa***.....1 is the index of production of agricultural commodities' with one-year lag, and Y is the index of total expenditure indirectly purporting to measure the influence of demand. The coefficients estimated by least-squares method are the following:

$$P_{„}=132.40—1.02 \quad i + 1.80Y$$
$$(.\ 76) \qquad (.31)$$
$$R = .93$$

The equation is statistically quite satisfactory in view of the relatively small standard errors of the coefficients. The correlation coefficient is significant at 1-per-cent level. Since the variables are expressed in [terms of indices, the coefficients of and Y can be treated as some sort of elasticities of response of prices to changes in production and demand. In the case of manufactured goods, no such lag in the influence of supply on price can be postulated and price and supply in the same period are expected to be interrelated. The equation, $p, = ai + a2Sj + a3Y$, does not yield good results. The estimated coefficients are $Pi = a(—.044S, + .62Y$. The results after a first-difference transformation
(.20) (.74)
show no improvement.

$$AP!-a\ ,-,11\ \ AS,+\ .40\ AY$$
$$(.26) \qquad (.51)$$
$$R=.42$$

In addition to the effects of income changes, demand for manufactured goods in interwing trade has also been influenced by a diversion of demand from abroad. It is difficult to take both these factors into account in terms of one variable. The ratio of interwing trade to import from overseas imports as a variable does not improve the result either. The ratio of quantity index of overseas imports to the index of expenditure, ***i.e.*** A is also tried as an explanatory variable with the following results:

$$ap, = 0.6--.19aS, + .1ia \quad M$$
$$(.26) \qquad (.31) \quad y$$
$$R=,32$$

A further step in the search for a satisfactory explanation of the movements of the prices of manufactured goods is to test a nonlinear relationship between the variables of the form $Pi = AS, "iY«»$. The equation is estimated in its logarithmic transformation so that

$$\log P,\sim Iog\ A + a(\ log\ Si + a_{2}\ logY$$
$$=ao+a,log\ \ Si+ajlogY$$

where log A = a „

and the results are

log P, = .425 —.27 log Si +1.50 log Y
(.10) (.51)
R=.77

The relationship, as indicated by the coefficients and their standard errors, is statistically quite satisfactory. The correlation coefficient is significant at 10-per-cent level. The total national expenditure representing an index of demand for manufactured goods, as indicated by Y, has an important influence on price. This is plausible in view of the fact that a large and increasing amount of excess demand emanating from urbanization changes in the distribution of income and in the structure of demand faced relatively a much slower or no increase on the supply side. The large coefficient of Y can be said to include also the influence of trade diversion since the index of trade diversion, *i.e.,* —" appears to be highly correlated with Y.

EXTERNAL TERMS OF TRADE

The next step has been to calculate the terms of trade of East and West Pakistan with the outside world separately. The terms of trade have been calculated from two different sources. One set has been computed from the indices of unit values of individual export commodities and from indices of the unit values of three different groups of import (food, drinks, and tobacco, raw materials, manufactures) as available from published sources [9, January and December 1960]. The exports of East Pakistan included in the index are jute, tea, and hides and skins and those of West include wool, cotton, and hides and skins. The indices of unit values have been weighted by the respective values of exports and imports of these commodities in 1948/49. Another terms-of-trade series have been computed directly from the published data on values and quantities of exports and imports for the calendar years 19 5 5-60[6].

The first set of terms of trade along with the indices of export and import prices is shown in Table XIV.

It appears from the table that the terms of trade of both East and West Pakistan have deteriorated. Compared with the base year, the terms of trade of West Pakistan, though declining over time, have been at a higher level than those of East Pakistan in each of the years. The extent, *i.e.,* absolute magnitude of deterioration in the terms of trade of East Pakistan over the years has been greater than that of West Pakistan. Though indices of import prices of both

<>5, for years 1955-60], The 1960 figures relate to six months, January-June 1960.

TABLE XVI

INDIRECT ESTIMATE OF TERMS OF TRADE OF EAST AND WEST WITH OUTSIDE WORLD

Year	East Pakistan			West Pakistan		
	Terms of trade	Index of export price	Index of import price	Terms of trade	Index of export price	Index of import price
1949/50	100.0	100	100	100	100	100
1950/51	98.3	104	106	150	158	106
1951/52	98.6	117	119	124	148	119
1952/53	63.6	62	98	106	104	98
1953/54	60.0	64	106	88	94	106
1954/55	68.5	69	101	.92	92	100
1955/56	56.0	86	149	72	106	148
1956/57	56.0	98	176	65	115	178
1957/58	54.0	100	187	57	107	190
1958/59	50.0	94	189	48	93	193
1959/60	47.0	90	191	52	101	195

East and West Pakistan have gone up and indices of export price of both have declined, index of export price of West Pakistan has consistently stayed at a higher level than that of East Pakistan, *i.e.,* decline has been less in West than in East. This difference in the movement of export prices occurs inspite of the fact that exports of both are nonindustrial goods. The quantity of exports, however, has recorded an increase in East Pakistan whereas in the case of West Pakistan there is no discernible clear trend in exports, as is seen below in Table XV:

TABLE XV

Year	East Pakistan		West Pakistan	
	Quantum index of exports	Income terms of trade	Quantum index of exports	Income terms of trade
1949/50	100	100	100	100
1950/51	185	182	38	58
1951/52	148	146	110	137
1952/53	165	105	148	156
1953/54	160	96	121	106
1954/55	204	140	94	87
1955/56	192	112	124	81
1956/57	147	83	107	70
1957/58	157	85	72	41
1958/59	149	74	84	41
1959/60	191	90	118	61

Note: **The value of exports is obtained from [9, November 1960, p. 1471], avid has been deflated by respective price indices to arrive at quantity indices. The quantity index cannot be directly calculated in the absence of quantity data. The value of exports of East and West Pakistan has been deflated by export-price index of East and West Pakistan (as given in the previous table) in order to obtain the value in constant prices, *i.e.,* volume of exports, and this has been used as the basis of quantity index of exports.**

The increase in the quantity of exports of East Pakistan has partially offset the declining commodity terms of trade with the result that income terms of trade have fallen less in the case of East Pakistan than in the case of West Pakistan. The linear trends in income terms of trade of East and West Pakistan are given by the following equations: $Y_i = 148 - 6.30t$ (East) and $Y_w = 126 - 6.80t$ (West).
(2.54) (2.97)
Even though the quantity index of exports of West Pakistan does not have any discernible trend, in many cases the nature of fluctuations in commodity terms of trade and in the volume of exports is such that often years of severe decline in the volume of exports arc accompanied by a sharp rise in commodity terms of trade and *vice versa* so that downward trend in income terms of trade is not as great as it will otherwise be.

The second set of terms of trade which has been directly estimated has been available only for the calendar years 1955-60 ***(see*** Table XV).

TABLE XVI

DIRECT AND INDIRECT ESTIMATES OF TERMS OF TRADE WITH OUTSIDE WORLD

Year	East Pakistan		West Pakistan	
	(A)	(B)	(A)	(B)
1955	100	100	100	100
1956	85	76	83	70
1957	84	73	77	74
1958	73	82	60	92
1959	69	68	59	95
1960		85		97

Notes: **(A)=Indirect estimate explained above. Weights are volume of exports and imports of 1955 [5, for 1955].**

(B)=Direct estimate with weights of 1955. Direct estimate includes a large number of commodities and uses a different set of weights.

While the indirect estimate of terms of trade shows a consistent downward trend in the case of both, the direct estimate reveals that in the case of East Pakistan there is no strong trend one way or the other, and that in case of West Pakistan the terms of trade fell in 1956 and since then they have been slowly but continuously rising. The indices in any case are too short to allow the derivation of a statistically meaningful trend. Moreover, the fact that the index of 1960 is based on price data for only six months of 1960 vitiates its comparability with earlier years.

The above analysis of the behaviour of terms of trade demons!rates that it is difficult to generalize, irrespective of time periods or of nature of commodities, about the movements of the aggregate terms of trade between any two regions or between one region and the rest, of the world on the basis of their stages of development or levels of income. It is equally difficult to generalize about the movements of terms of trade between groups of commodities such as agricultural and industrial commodities. It all depends upon the nature as well as the extent and elasticity of demand and of supply of specific commodities which move in trade or are included in the particular indices of terms of trade in question. With a change in number and nature of commodities included in the indices and with a change in base-year, there are corresponding changes in the

trends of terms of trade. East Pakistan — a relatively underdeveloped and less diversified economy — experienced an upward trend in her interregional terms of trade over the period, 1950/51 to 1959/60 as a whole, but suffered a decline in the last three years or so. If a number of new commodities which were introduced in interwing trade in 1953/54 are included in a new set of index beginning 1953/54, the new index of the terms of trade reveals a downward trend. In overseas trade, East Pakistan's terms of trade suffered a steady and continuous decline. Compared with the base year, East Pakistan's terms of trade fell more and stayed at a lower level than those of West Pakistan throughout the whole period. Export prices of both wings in overseas trade rose and then fell but compared with the base year the magnitude of fall was greater in East than in West. The changes in the volume of exports sometimes partially offset the changes in terms of trade as it has happened in the case of both East and West Pakistan in foreign trade and sometimes such changes reinforce those in terms of trade as illustrated in th© case of East Pakistan in interregional trade.

It is to be noted, however, that the period covered in this study has been rather short. The longest series did not exceed 12 years. It is not easy to look for a meaningful trend in many of the shorter series so that a generalization about long-term movements in terms of trade is severely handicapped. In both the cases of international and interregional terms of trade there have been year-to-year fluctuations—sometimes considerable fluctuations at that. The explanation of variations in export and import prices in interregional trade has been sought by means of a number of factors which govern short-run demand and supply of the commodities in question. It has not been always possible to obtain satisfactory explanation in the absence of data on a number of factors and in view of the inherent limitation of the statistical methods employed.

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Appendix A

TABLE A-l

EAST PAKISTAN'S IMPORTS AND EXPORTS

Year	Total imports	Imports from West Pakistan	% ratio of (3) to (2)	Total exports	Exports to West Pakistan	% ratio of (6) to (5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(. .000 rupees..)		*(percent)*	*(. .000 rupees..)*		*(perce*
1948/49	421,536	139,230	33.0	448,183	19,100	4.3
1949/50	619,916	235,070	37.9	678,458	49,580	7.3
1950/51	724,701	271,760	37.5	1,272,861	61,790	4.9
1951/52	1,017,375	253,920	25.0	1,152,801	65,870	5.7
1952/53	584,820	218,460	37.4	791,115	148,650	18.8
1953/54	680,556	386,790	56.8	794,662	149,600	18.8
1954/55	625,177	304,960	48.8	928,131	196,560	21.2
1955/56	694,476	333,890	48.1	1,277,946	236,660	18.5
1956/57	1,350,388	531,850	39.4	1,152,134	242,760	21.1
1957/58	1,437,316	701,690	48.8	1,267,149	269,090	21.2
1958/59	1,238,918	685,120	55.3	1,165,204	284.250	24.4
1959/60	1,218,700	563,430	46.2	1,432,476	352,900	24.6
First five-years' average:		34.16			8.20	
Last five-years' average:		47.56			21.96	

Source: [9, December 1960].

TABLE A-2

WEST PAKISTAN'S IMPORTS AND EXPORTS

Year	Total imports	Imports from East Pakistan	% ratio of (3) to (2)	Total exports	Exports to East Pakistan	% ratio (6) to (5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(. .000 ritpees..)		*(percent)*	*(000 riipees)*		*(per cent)*
1948/49	1,195,877	19,100	1.6	667,739	139,230	20.9
1949/50	961,799	49,580	5.2	800,252	235,070	29.4
1950/51	1,228,843	61,790	5.0	1,614,242	271,760	16.8
1951/52	1,539,761	65,870	4.3	1,175,847	253,920	21.6
1952/53	1,165,912	148,650	12.7	1,085,853	218,450	20.1
1953/54	973,882	149,600	1.4	1,027,763	386,790	37.6
1954/55	969,610	196,560	20.1	,' 96,348	304,960	38.3
1955/56	1,201,113	236,660	19.7	1,076,304	333,890	31.0
1956/57	1,758,798	242,760	13.8	1,230,068	531,850	43.3
1957/58	1,583,433	269,090	17.0	1,135,284	701,690	61.8
1958/59	1,303,858	284,230	21.7	1,129,497	685,120	60.7
1959/60	2,158,607	352,900	16.3	1,326,565	563,430	42.5
First five-yesirs' average			5.76			21.76
Last five-ye.its' average			17.70			47.84

Source: same as Table A-1.

TABLE A-3

IMPORTS INTO EAST PAKISTAN **FROM** WEST PAKISTAN AND FROM **OVERSEAS**

Commodities	1948/49		1955		1959	
	West Pakistan	Over-seas	West Pakistan	Over-seas	West Pakistan	Over-seas
			. ill thousand rupees.			
Apparel	**50**	**189**		**14**		**278**
Books and printed matter	**96**	**45**	**312**	**134**	616	**1,321**
Boots and shoes	**40**	**10,306**	**5,037**		**7,874**	
Chemicals and drugs	**4,735**	11 **107**	**5,451**	**16,872**	**17,479**	**27,403**
Dyeing and tanning substances	**582**	**156**				
Fruits and vegetables	**1,986**		608	**74**	**2,486**	**140**
Grain, pulses and flour	**40,613**	**176**	**13,976**	**4**	**137,680**	**59,856**
Gums and resins	**49**		**421**	126	**2,065**	**901**
Hardware	**1,406**	602	**6,215**	**2,998**	**3,164**	**11,090**
	2	**556**	168	282	**617**	
Machinery and mill work		**267**	**1,322**	**60,185**	**4,128**	**97,357**
Matches	**3,108**	086			**70**	
Metals and ores	**1,550**	**467**	**737**	**30**	**5,089**	**78**
Rape and mustard seed oil	**5,282**	**604**	**7,612**		**24,663**	
Other vegetables, nonessential oils	2)322	12 222	**10,319**	**1,345**	**26,471**	**31,111**
Provisions and oilman's stores	**2,937**	**3 252**	**3,483**	**2,429**	**6,083**	**2,795**
Salt	**8,185**	**14 913**	**5,467**		**7,492**	
Seeds	**19,409**	**84**	**33,973**	12	**59,785**	**2,276**
Soap	**52**	**545**	**3,304**	**242**	**8,311**	**5**
Spices	**1,950**	5 **837**	**1,129**	**552**	2,208	**3,134**
Sugar including molasses	**2,084**	2 **511**	**956**		**11,600**	
Cotton, raw	**6,585**	1 **373**	**15,621**	675	**45,102**	**7,631**
Cotton, twist and yarn	**8,941**	106 110	**118,946**	3,974	**70,881**	**2,631**
Cotton piecegoods	**3,204**	10 **960**	**27,090**	to,141	**86,669**	**1,128**
Other textiles	**437**	1 **748**	**35**	4,144	**1,655**	**2,143**
Tobacco manufactured	**67**	5 **423**	**15,133**	13	**24,447**	161
Tobacco unmanufactured		**55**	**12,385**		**22,408**	
Cement			**31**	**3,503**	**7,918**	**8,152**
Instruments		**194**	**2,383**		**3,360**	
Liquors		**597**	**263**	220	**256**	**451**
Oils, nonvegetables		020	**398**	**33,800**	**3,005**	**60,967**
Paper and pasteboard		**767**	**77**	**2,284**	**2,817**	**2,708**
Stationery		**398**		**530**	**7,461**	**905**
Rubber manufactures		**291**	**760**	**1,395**	**1,254**	**3,006**
Dyes and colours	**582**	**509**	**1,856**	**5,017**	**1,870**	**7,986**

Sources: **[1 Vol, I; 5, for 1955and 1959; 9, May 1959, September 1959,** and March 1960],

TABLE A-4

DISTRIBUTION OF SOME EXPORTS OF EAST PAKISTAN IMPORTANT IN INTERWING TRADE *AS* BETWEEN WEST PAKISTAN AND ABROAD

Commodities exported from East Pakistan to West Pakistan and abroad	1948/49		1955		1959		1948/49	1955	1959
	To West Pakistan value (a*>	To abroad value (b,)	To West Pakistan value {a,>	To abroad value (b2)	To West Pakistan value	To abroad value (b,)	CO	©	©
Drugs and medicines	16,000	3,000	61,000	3,68,417	17,43,000	64,707	5.333	.166	26.936
Fruits and vegetables	27,000	3,000	21,85,000	8,92,753	15.33,000	19,437	9.000	2.447	78.870
Hardware and cutlery	2,000	28,000	1,32,000	7.644	3,467,00	3,89,356	.071	17.268	8.904
Hides and skies	1,000	1,81,27,000	4,43,000	1,51,28,261	8,00,000	3,47,03,891	.00005	.029	.023
Leather	75,000		77,43,000		2,76,40,000	14,22,958			
Matches	69,000		53,26,000		2,40,49,000				
Paper and pasteboard			,88,98,000		3.15,22,000	57,714			
Provisions and oilman's stores	4,000	*51,000*	60,000		13,93.000	2,27,197	.129		6.131
Seeds	12,18,000	5,35,000	14,41,000	26,54,642	1.06,69,000	6,71,721	2.277	.543	15.883
Spices	30,37,000	60,56,000	96,63,000	44,302	1,96,23,000	30,10,361	.501	218.117	6.513
Jute manufactures	2,37,000.	9,000	5,24,01,000	6,33,69,897	5,67,08,000	*20,40,58,107*	26.333	7.82	.27S
Tea	1,05,73,000	4,42,42,000	7,09,88,000	3,16,88.350	8,81,46,000	2,64,70,678	.239	2.240	3.330
Tobacco	2,03,000	4,47.000	31,38,000	6.988	32,75,000		.454	449.056	

Note: The values of experts of the above items to West Pakistan for 1948/49 are obtained from [6], Exports abroad for the same year are obtained from [1, Table 95]. The figures for 1955 and 1959 are obtained from [5].

TABLE A-5

INTRODUCTION OF NEW COMMODITIES IN INTERWING TRADE

(Export of East Pakistan to West Pakistan)

Commodities exported from East Pakistan to West Pakistan in 1948/49 (Pakistan merchandise)	Value in '000' rupees	New commodities exported from East Pakistan to West Pakistan in 1955/56 (Pakistan merchandise)	Value in '000' rupees	New commodities exported from East Pakistan to West Pakistan in 1959/60 (Pakistan merchandise)	Value in '000' rupees
(1)	(2)	(3)	(4)	(5)	(6)
Grand total:	18,185	Grand total:	219,312	Grand total:	315,597
Drugs and medicines	16				
Dyeing & tanning substances	41				
salted or preserved	27	Fresh fruits	592		1,118
Hardware & cutlery	2	Fresh vegetables	629		94
Hides & skins, raw	1	Pulses	773		337
Leather (hides, dressed and tanned)	75	Mats & mattings	64		325
Matches	69	Paper & paste-board	15,085		42,932
Coooanut oil	16	Gunny cloth	11,224		7,733
Groudnut oil	1,027	Rope & twine	3,910		6,916
Provisions & oilman's stores	4	Coil manufactured (including rope)	161		18
Seeds, essential	20	Cordage & rope of vegetable fibre (excluding jute & cotton)	129		114
Seeds, nonessential	1,198				
Betelnets	2	Other grain	28		5,820
Chillies	3,018	Other jute manufactures	48		2,155
Ginger	3				
Turmeric	9			Cardamoms	7
Other spices	5			Other cotton	546
Tea	10,573				
Cotton piecegoods	1,393				
Gunny bags	237	Total:	32,643 = 14.9%	Total	68.115 19.4%
Other textiles	23				
Tobacco manufactured (including cigarettes)	2				
Tobacco unmanufactured	201				
Wood and timber	35				
All other articles	188				

Source: The source of data is the same as those for Appendix Tables A-3 and A- 4.

TABLE A-6

INTRODUCTION OF NEW COMMODITIES IN INTERWING TRADE
(Imports of East Pakistan from West Pakistan)

Commodities imported into East Pak. from West Pakistan in 1948/49 (Pakistan merchandise)	Value in '000' rupees	New commodities imported into East Pakistan from West Pak. in 1955/56 (Pakistan merchandise)	Value in '000' rupees	New commodities imported into East Pakistan from West Pak. in 1959/60 (Pakistan merchandise)	Value in '000' rupees
(1)	(2)	(3)	(4)	(5)	(6)
Grand total:	1,36,490	Grand total:	3,05,047	Grand total:	5,21,171
Apparel	50				
Books & printed matter	96				
Boots & shoes	40				
Chemicals & chcmical preparations	1,657	Giam	1,041		5,210
Drugs & medicines	3,078	Other sorts of grains	298		4,713
Dyeing & tanning sub-stances	582	Machinery and mill works	1,401		6,070
Fruits & vegetables, dried salted or preserved	1,046	Other textiles	293		946
Other sorts	358	Tobacco un-manufactured	19,260		25,358
Pulses	742	Instrumen ts	2,178		3,537
Rice	38,986	Liquors	150		255
Wheat & wheat flour	885	Mineral oil	117		233
Gums & resins	49	Other kinds of oil	65		902
Hardware	1,406	Paints & colours	1,620		2,391
Leather	2	Paper & paste-board	68		2,691
Matches	3,108	Other cotton manufactures	820		4,257
Metals & ores	1,550	Tallow & stcaring	780		61
Rape and mustard seed oil	5,282	Cement			10,588
Other vegetable non-essential oils	2,322				
Ghee	98				
Other provisions	2,839			Stationery	2,177
Salt	8,185			Rubber manufactures	1,213
Rape & mustard seeds	18,695				
Other sorts	714				
Soap	52				
Chillies	26	Total:	28.091	Total:	70,602
			-9.2%		13.5%

Source: The source of data is the same as those for Appendix Tables A-3 and A-4.

TABLE A-7

WEST PAKISTAN TERMS OF TRADE WITH OUTSIDE WORLD

Period	Average indices of unit values of exports (April 1948-March 1949=100)			Index of unit values of exports	Average indices of unit values of imports (April 1948-March 1949=100)			Index of unit values of imports	Terms of trade
	Cotton	Wool	Hides & skins		Food, drinks & tobacco	Raw material	Manu-facture		
1949/50	101.8	102.4	31.9	100.0	90.0	85.3	76.2	100.0	100.0
1950/51	158.7	205.5	124.4	158.4	98.4	86.3	80.7	105.7	149.9
1951/52	154.7	128.4	99.3	147.6	108. 2	100.4	90.5	118.S	124.2
1952/53	101.2	151.2	91.5	103.6	91.5	81.0	74.3	97.7	108.0
1953/54	88.5	159.7	94.1	93.8	106.8	77.0	81.6	106.2	88.3
1954/55	87.8	149.3	86.3	91.8	121.0	72.2	73.3	99.9	91.9
1955/56	101.3	186.5	97.4	106.5	179.5	93.0	111.5	148.2	71.9
1956/57	108.3	222.4	101.2	115.0	173.7	98.2	143.7	177.9	64.6
1957/58	201.6	579.5	107.5	107.4	176.4	99.8	156.0	189.9	56.6
1958/59	84. S	160.0	111.5	92.6	176.6	96.2	159.9	192.9	48.0
1959/60	86.7	182.9	165.7	101.5	166.5	101.6	163.1	195.2	52.0

Note: T£fn-, ndices afu m i t v a l u e s of individual exports and of three categories of imports are taken from [9, January 1960 and December *lyb U].*

«» wcigQib as avauaoie in *statistical Aostract for East Pakistan,* (Cioverooment of East Board and the Bureau of Commercial and Industrial Intelligence), Vol. II, 1955, Table 95, Pp. 340-344.

Export weights: April 1948 to March 1949	*('000' rupees)*
Cotton	4,45,418
Wool	33,622
Hides & skins	57,271

Import weights: April 1948 to March 1949	0000*'rupees)*
Food, drinks and tobacco	1,12,041
Raw materials	1,26,978
Manufactures	6,45,860

TABLE A-8

EAST PAKISTAN'S TERMS OF TRADE WITH OUTSIDE WORLD

Period	Average indices of "unit values of exports (April 1948-March 1949=100)			Index of unit values of exports	Average indices of unit values of Imprts (April 1948-March 1949=100)			Index of unit values of imports	Terms of trade
	Jute	Tea	Hides & skins		Food, drinks & tobacco	Raw material	Manu-facture		
1949/50	82.9	104.3	81.9	100.0	90.0	85.3	76.2	100.0	100.0
1950/51	85.9	100.9	124.4	103.9	98.4	86.3	89.7	105.7	98.3
1951/52	98.3	82.0	99.3	117.1	108.2	100.4	90.5	118.8	98.6
1952/53	50.4	84.3	91.5	62.2	91.5	81.0	74.3	97.8	63.6
1953/54	51.4	91.7	94.1	63.6	106.8	77.0	81.6	106.2	59.9
1954/55	54.8	144.0	86.3	69.3	121.0	72.2	73.3	101.2	68.5
1955/56	69.1	158.1	97.4	86.4	179.5	93.0	111.5	149.2	57.9
1956/57	90.1	135.0	101.2	98.2	173.7	98.2	143.7	175.7	55.9
1957/58	81.4	151.1	107.5	100.4	176.4	99.8	156.0	186.6	53.8
1958/59	75.7	171.2	111.5	93.8	176.6	96.2	159.9	189.1	49.6
1959/60	71.6	146.6	165.7	89.9	166.5	101.6	613.1	190.8	47.1

Note: same as in Appendix Table A-7.

Export weights:	*(000 rupees)*
Jute	13,87,100
Tea	44,242
Hides & skin	18.127

import weights:	*(000 rupees)*
Food, drinks & tobacco	41,853
Raw materials	44,461
Manufacture	1,66,217

Some Comments on the Export Bonus, Export Promotion and Investment Criteria

Ronald Soligo and Joseph J. Stern

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Some Comments on the Export Bonus, Export Promotion and Investment Criteria

Ronald Soligo and Joseph J. Stern

INTRODUCTION

One of the principal elements in the third-five-year-plan strategy is to shift the pattern of investment in favour of export-oriented industries [6]. According to the Plan targets, exports are to increase at a rate of 9.5 per cent per annum over the period 1964/65 to 1969/70, a rate of growth which exceeds the target rate of growth for GNP, estimated at 6.5 per cent per annum. Furthermore, the increase in exports is expected mainly in manufactured goods and in non-traditional items such as rice and fish [6]. Put in other terms, the Plan targets propose to divert to exports 10 per cent of additional manufacturing output produced during the third-plan period. This target contrasts sharply with the actual experience of the Second Five Year Plan, when only 3 per cent of the additional output of the manufacturing sector was exported.

Numerous policies have been used to stimulate exports. Some of these are tax incentives and export-performance licensing which entitle certain export industries to additional import licences on the basis of their export performance. The key instrument in the export-promotion strategy, however, and the one which has received the .most attention from economists, is the Export Bonus Scheme. The scheme, first introduced in 1959 and scheduled to run till the end of the second-plan period, has now been extended to cover the Third Plan

as well. Tlie main features of the scheme can be briefly summarized as follows: for those commodities for which bonus vouchers are given (practically all manufactured goods, but only some raw materials) the exporter, upon surrendering his foreign exchange to the State Bank at the official rate of exchange, receives a voucher that entitles its owner to purchase foreign exchange equal in value to a specified percentage, depending upon the commodity exported, of the amount earned. The voucher is, therefore, a ration coupon honoured by the State Batik for obtaining foreign exchange for use in importing a wide range of goods'. The voucher is freely transferable and may be sold in the market at a price determined by the market.

The proportion of the foreign exchange earned by the exporter and given to him in the form of bonus vouchers is called the *bonus rate.* Currently, there are two basic rates under the bonus scheme: 20 per cent and 30 per cent2. With the notable exception of jute textiles, practically all manufactured goods are given the 30-per-cent rate. The market price of the bonus voucher, called the *premium,* has fluctuated, depending on the supply of vouchers available, which reflects the level of the bonus rates and the amount of export earnings under the scheme, and the demand for vouchers, which is a function of the number of items for which vouchers can be utilized and the demand that exists for such items in excess of the supply available from domestic production and licensed imports. In recent years, the bonus premium has fluctuated between Rs. 135 and Rs. 170, *i.e.,* vouchers which would permit the owner to purchase Rs. 100 in foreign exchange at the official rate could be purchased for a price ranging between Rs. 135 to Rs. 170 [5],

The export bonus scheme has been subject to some criticism by economists. The criticism centres around the fact that, the export bonus system is, in effect, a multiple exchange rate system where exports are subject to a more favourable exchange rate (from the viewpoint of exporters) than the official rate at which the bulk of goods are imported. Further, exports are subject to different rates depending CM. the commodity involved. It is argued that the bonus system distorts the pattern of resource use towards a less efficient allocation and reduces foreign-exchange earnings.

Ghulani Mohammad |3| has shown that the introduction of the bonus scheme for rice has led to a shift in the relative acreage from cotton to rice even through foreign-exchange earnings per acre of land and per cusec of water are

'For a more detailed discussion of the operation of the Export Bonus Scheme, *see 11; 21*

This implies, of course, three rates; 0, 20 and 30 per cent.

higher for cotton than for rice-[1]. Mallou [4] has considered the relative advantages of exporting raw cotton and jute as compared with their manufactures. He concludes that foreign-exchange earnings are higher when the former are exported but that the pattern of exports has been biased in favour of cotton and jute textiles since the export of these commodities is subject to a bonus whereas the exports of raw cotton and raw jute receive no bonus and, in addition, are subject to an export tax.

The essence of the arguments put forth by Ghulam Mohammad and Mallon is that the differential rates of bonus cause a loss in foreign exchange because they distort the pattern of exports and resource use in favour of commodities which earn relatively less foreign exchange.

Thomas [9] has speculated further that the bonus system could have the effect of losing foreign exchange in a much more direct sense. In his argument, foreign exchange is lost v/hen the total imported inputs, direct as well as indirect, embodied in the exported goods, exceed the foreign-exchange earnings of the exported goods. Such a loss of foreign exchange is compatible with a rupee profit to the exporter because the bonus system in effect converts earnings at the rate of roughly Rs. 12.00 per US$ 1.004, whereas imported inputs are priced, except for those purchased with bonus vouchers at the official rate of exchange of Rs, 4.76 per US dollar.

In calculating the foreign-exchange loss, Thomas, unlike Mallon and Ghulam Mohammad, does not consider the opportunity costs of those domestic resources which, like land and water, could be used to produce other exportable commodities or which, in the case of cotton and jute, could be exported directly without conversion into some other product, As a result, Thomas test of "export profitability" will be "weaker" than the Mallon-Ghulam Mohammad test in the sense that some industries which, according to the Thomas measure, have large net foreign earnings, might have negative earnings when alternative uses of domestic resources are taken into account. On the other hand, if there is a foreign-exchange loss according to the Thomas test, then there will also be a loss by the Mallon-Ghulam Mohammad measure.

The largest divergence between the results of the two tests of "export profitability" will be in those industries the output of which embodies a high component of domestically produced inputs having a ready export alternative. The

[1] We omit here all other considerations which might make a change in the cropping pattern in the Punjab more or less desirable. Thus, for example, Ghulam Mohammad notes that rice is important for reclaiming saline lands in the irrigated portions of West Pakistan but that continued cultivation of rice leads to a rise in the ground watertable because seepage from rice fields tends to be much higher than watertable from fields under other crops f3],

[•] The actual conversion rate depends, of course, on the premium for bonus vouchers prevailing in the market at the time the vouchers are sold.

best examples are those industries in the cotton-jute textile group. Indeed, these are probably the only manufacturing industries for which there is likely to be any significant divergence. The domestically produced input component in most other industries in Pakistan consists chiefly of such "national" sectors as trade, banking, government services and transportation which have no export alternative.

Another criticism of the export bonus scheme put forth by Thomas is that export bonuses may not be successful as a means for increasing the level of exports because of uncertainties regarding the life span of the scheme, changes in the bonus rates, and fluctuations in the bonus premium[5]. With respect to the latter, he says:

> .. .The bonus voucher price can fluctuate within wide limits, so that the exporter, at the time he contracts his sale, cannot know what his gross revenue, including bonus, will be. Further, the government has changed the rate of bonus, and even though commitments were honoured at the previous rate, this raises serious questions about the future policy and future export profitability [9],

In this paper, we have calculated net foreign-exchange earnings as defined by Thomas for forty-three manufacturing industries. Although this measure excludes the export alternative of domestically produced inputs, it nevertheless will be an approximation to the net foreign-exchange-earnings concept of Mallon and Ghulam Mohammad, except for those industries which are intensive users of raw cotton and jute. We have also compared the total import component, direct and indirect, of exports under the bonus scheme with the degree of export subsidy afforded by the bonus scheme.

To evaluate the sensitivity of the export earnings of exporters to changes in the bonus rate and bonus premium, we have derived the relevant elasticity concepts and have computed their value for currently prevailing values of the bonus rate and bonus premium.

In the last part of the paper, we raise the question of what should be the criteria for determining the industries in which investment should be encouraged and more specifically for determining which industries should be given priority from the point of view of meeting the export and foreign-exchange earning targets of the Third Five Year Plan.

[5]This aspect of the bonus scheme is not necessarily a disadvantage. If, in fact, there is a foreign-exchange loss on commodities exported on bonus, the constraint imposed on the expansion of bonus exports by these uncertainties has the beneficial effect of limiting the extent of the foreign-exchange loss.

II. NET FOREIGN-EXCHANGE EARNINGS FOR EXPORTS OF MANUFACTURES

The method we have used to compute the net foreign-exchange earnings received by the economy when exports take place under the bonus scheme is as follows. Let:

E_j = the export value (*f.o.b.*), expressed in rupees, of one rupee worth of output from industry j at domestic market prices;

b_j = the percentage of E_j earned as a bonus voucher;

p = the premium earned on the sale of bonus vouchers expressed as a percentage of the amount of foreign exchange that the voucher entitles one to purchase;

and D_j = the rupee earnings of the exporter which result from exporting one rupee worth of commodity j, measured at domestic market prices, including bonus.

Then

$$D_j = E_j + E_j p b_j \quad \ldots\ldots(1)$$

or

$$D_j = E_j (1 + p b_j) \quad \ldots\ldots(1a)$$

We have assumed in what follows that the exporter passes on the benefits of tax exemptions and the export bonus to the foreign buyer. This would be true only in a purely competitive market structure where marginal revenue is equal to price. If the exporter faces a downward sloping demand curve either in the domestic or foreign market then it would no longer be correct to assume that the difference between the foreign and domestic price was equal to the domestic tax and export bonus[6].

In those cases where exports are exempted from domestic indirect taxes a rupee worth of output at domestic market prices would be exported, if the returns to the exporter were equal to one rupee minus indirect taxes. Hence:

$$D_j = (1 - t_j) \quad \ldots\ldots(2)$$

where t_j is the domestic indirect taxes per rupee unit of output on commodity j.

Substituting (2) into (1a) and solving (1a) for E_j, we get:

$$E_j = \frac{1 - t_j}{1 + p b_j} \quad \ldots\ldots(3)$$

[6]In general, the domestic demand curve facing a particular firm will be more inelastic than the foreign demand curve; thus, the difference between domestic market and export price will exceed the amount of export bonus and indirect tax levied on domestic sales. In this case, our analysis would overestimate the marginal revenue in the domestic market and the minimum price at which the domestic producer would be willing to export. The net foreign-exchange earnings which we calculate using the assumption of pure competition in both markets will be biased upwards with the bias greatest for those industries in which the domestic demand curve is the more inelastic relative to the foreign demand curve.

Total foreign-exchange costs of exports are easily calculated from the inverse of the Tims-Stern input-output table prepared for the Planning Commission [6][7]. Let A represent the matrix inverse, then a_{ij} is the amount by which output of industry i must be increased for the production of one unit of final demand of commodity j, and let m_i be the value of direct imports per rupees of output of commodity i. The *total* import embodied in one unit of final demand of commodity j is then given by :

$$M_j = \sum_{i=1}^{n} a_{ij} m_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

The net foreign-exchange earning is the difference between the price paid by the foreign importer and the total cost, direct as well as indirect, of imports embodied in the export of one unit of final demand. Thus net foreign-exchange earnings for the economy are:

$$V_j = E_j - M_j \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (5)$$

The net foreign-exchange earnings as given by Equation (5) and shown in Table I as a per cent of export (*f.o.b.*) value, are a function of the bonus rate, the bonus premium and domestic indirect taxes. For our calculations, we have assumed a bonus premium of Rs. 150 or that p=150 per cent. The industries have been ranked according to their net foreign-exchange earnings.

The net foreign-exchange earnings range from a high of 99.8 per cent for raw jute to a low of 32.3 per cent for basic metals and 25.1 per cent for perfumes, cosmetics and soap. Net foreign-exchange earnings tend to be highest for consumer goods and intermediate goods, lowest for capital and related products. This relative ranking follows from the fact that: *i*) many consumer-goods industries are relatively intensive in their use of indigenous raw materials and intermediate inputs and, hence, have low import components, while all capital- and related-goods industries are based on imported raw materials; and *ii*) the bonus rates are lowest for consumer-goods industries.

None of the industries studied[8] has a net foreign-exchange loss in the "Thomas" sense. The problem which he raises, that the bonus system could have the effect of losing foreign exchange in the sense of allowing the exporter to lower his export price to such a level that the foreign exchange earned per unit of export does not cover the cost of the direct as well as indirect imports em-

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[7]The authors wish to express their appreciation to the Harvard University Development Advisory Service for providing computer time at the Harvard University Computing Centre and to Professor Alfred H. Conrad for guidance and assistance in inversion of the matrix.

[8]We have omitted those industries which are prohibited from exporting under the PL-480 agreement. These are grain milling, other than rice, and edible oils and fats. Small-scale industries have also been omitted since, in the Tims-Stern input-output table, this sector included small-scale grain milling which falls under the PL 480 prohibition on exports of like commodities.

TABLE I

NET FOREIGN-EXCHANGE EARNINGS
(As a Percentage of Export (F.O.B.) Value)

Rank	Industry	(percent)
1.	Jute pressing	99.75
2.	Cotton ginning	97.07
3.	Chemical fertilizers	96.04
4.	Tea	89.25
5.	Rice milling	75.73
6.	Sugar	69.30
7.	Sports goods	68.42
8.	Dyeing, printing and finishing of textiles	67.28
9.	Jute textiles	67.43
1.0.	Knitting	64.32
11.	Thread and thread ball making	62.08
12.	Wood, cork and furniture	61.84
13.	Pens, pencils and related products	59.61
14.	Footwear	59.38
15.	Tanning and leather finishing	58.60
16.	Printing and publishing	57.15
17.	Cotton textiles	55.62
18.	Bakery products and confectionary	55.31
19.	Articles of paper and board	54.74
20.	Non-metallic mineral products	53.26
21.	Pharmaceuticals and miscellaneous chemicals	52.71
22.	Cigarettes and tobacco products	51.96
23.	Manufacture of paper and board	50.71
24.	Optical goods	49.75
25.	Matches	49.71
26.	Coal and petroleum products	49.64
27.	Silk and artsilk	49.58
28.	Transport equipment	47.64
29.	Woollen textiles	47.37
30.	Non-electrical machinery	46.21
31.	Canning and preserving of fruits and vegetables	45.86
32.	Salt	45.32
33.	Leather goods	45.28
34.	Rubber and rubber products	44.94
35.	Alcoholic beverages	44.19
36.	Metal goods	43.27
37.	Electrical machinery and appliances	43.22
38.	Wearing apparel	42.64
39.	Plastic products	41.88
40.	Paints and varnishes	39.04
41.	Non-alcoholic beverages	33.67
42.	Basic metals	32.28
43.	Perfumes, cosmetics and soaps	25.13

'For p = 150 per cent

bodied in the exported good, does not seem to be relevant** with the present level and composition of exports. Conceivably, the problem would become a real one if Pakistan tries to expand her exports for commodities where the foreign demand is inelastic. In order to expand exports of these commodities, further subsidies, whether in the form of increased bonus or some other form, must be given to permit Pakistani exporters to lower their export price. However, this situation is extremely unlikely given any reasonable assumption about foreign demand elasticities and the kind of export subsidies which are likely to be given.

Although we find that there is no foreign-exchange loss in the "Thomas" sense there may be a substantial loss in the "Mallon" sense. As we have already pointed out above, our analysis has only considered the alternative uses of imported intermediate inputs. In order to analyze Mallon's thesis fully, we would also have to consider the alternative uses of domestically produced intermediate inputs. These could be either exported directly, as in the case of raw cotton or raw jute, or be used to produce manufactured goods. Although we have not attempted to answer Mallon's proposition fully, we believe that for many industries the inclusion of alternative uses of domestically produced intermediate inputs probably would not change our results significantly.

Another consideration which we have also neglected is the import component of capital inputs. Our analysis has only included imported inputs of intermediate goods. Unfortunately, we do not know what the capital coefficients for each industry are, let alone the coefficients of imported capital. One thing we can say, however, is that the inclusion of capital inputs would increase the foreign-exchange cost and decrease the net foreign-exchange earnings for all industries. We are inclined to believe that heavy industries such as fertilizers, basic chemicals, basic metals and machinery industries, tend to be relatively capital intensive and would be affected by the adjustment more than the consumer-goods-oriented industries and raw-material-processing industries.

III. THE **ELASTICITY** OF EXPORT VALUES AND EXPORT EARNINGS

In order to get some idea of the sensitivity of the export value of one rupee worth of output and of the rupee earnings to the exporter to changes in the bonus rate and bonus premium, we have calculated the relevant elasticities.

The exporter, in setting the export value of a rupee worth of output, must take into account some average premium for the bonus vouchers he will earn. This average premium will reflect past performance of the voucher market and the exporter's expectation as to future behaviour. Thus, the manufacturer's

·Our analysis is confined to net earnings after taking into account the effect of the Export Bonus Scheme. No attempt has been made to include the effects of export-performance licensing and other incentives to exporting industries which are mentioned by

decision as to the minimum price at which he can export takes the bonus premium as given and depends on the bonus rate applicable to his product. The elasticity (e) of the export value of one rupee worth of output (E_j) with respect to changes in the bonus rate (b_j) is given by[10] :

$$e_{E_j \cdot b_j} = \frac{-pb_j}{(1 + pb_j)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

The elasticity for the export value of a rupee worth of output is a function of both the bonus rate and the premium. The value of the elasticity is relatively small for values of p and b_j which have prevailed in the past. For example, if the premium is taken as p=150% and the bonus rate as b_j=40% then the elasticity, $e_{Ej} . b_j$, is —0.37. Thus, each percentage change in the bonus rate would give rise to a change of only 0.37 per cent in the export price. However, changes in the bonus rate are a much greater source of uncertainty than the relatively low value of the elasticity would indicate because such changes are made by government fiat in relatively large discrete amounts. The bonus rate of most manufactured goods, for example, was recently reduced from 40 per cent to 30 per cent. This amounted to a 25-per-cent reduction of the bonus rate and would give rise to an increase of more than 9 per cent in the export price, if the exporter chooses not to absorb any part of the reduction in subsidy following from the reduction in export bonus. Consequently, he would be placed in a less competitive position in the world export market. Those exporters who had entered the export market after calculating their returns on investment using the higher bonus rate naturally suffered a loss when the change was made. Frequent changes in the

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[10]The elasticity is derived as follows. From (2) we have that:

$$E_j = \frac{D_j}{(1+pb_j)}$$

Then the elasticity of E_j with respect to b_j is defined as:

$$e_{E_j} \cdot {}_{b_j} = \frac{d}{dbj}\left[\frac{D}{(1+pbj)}\right] \cdot \frac{b_j}{E_j}$$

Taking the derivative:

$$e_{E_j} \cdot {}_{b_j} = \frac{-D_j p}{(1+pbj)^2} \cdot \frac{b_j}{E_j}$$

Substituting for Dj from (Ia), we have:

$$e_{E_j} \cdot {}_{b_j} = \frac{-E_j\ (1+pb_j)\ p}{(1+pb_j)^2} \cdot \frac{b_j}{E_j}$$

and simplilying:

$$e_{E_j} \cdot {}_{b_j} = \frac{-pb_j}{(1+pbj)}$$

bonus rate would cause substantial uncertainty for exporters and probably would hinder the orderly development of the export market.

Changes in the bonus premium affect the rupee earnings of the exporter (D_j). Once the exporter has set his export price, given the rate of bonus applicable to his commodity, fluctuations in the market for vouchers will alter his expected return. The elasticity (e) of the rupee earnings of the exporter (D_j) with respect to changes in the bonus premium, is given by[11] :

$$e_{D_j \cdot p} = \frac{pb_j}{(1+pb_j)} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (7)$$

Again the elasticity $e_{D_j \cdot p}$ is a function of both the bonus rate and bonus premium and is relatively small for realistic values of p and b_j. For example, if b=20% and p=150%, then $e_{D_j \cdot p}$ =0.23. A one-per-cent change in the bonus premium will give rise to only a 0.23-per-cent change in the earnings of the exporter while 10-per-cent change in the bonus premium would lead to a 2.3-per-cent change in the exporter's earnings. A 10-per-cent change in the bonus premium, when p=150%, would be equal to a change of ± 15 percentage points. On the basis of past experience, the monthly average of the bonus premium does not often fluctuate within a range of more than 15 percentage points. If the average premium is 150 per cent, then the exporter can anticipate a gain or loss of at most 2.3 per cent[12]. Even if the price of bonus vouchers should fall below the "normal" range, the loss of the exporter is not likely to be greater than a few per cent. It is unlikely that the possibility of such a small loss would be much of a deterrent to exporters, particularly when we remember that the risk of unplanned losses will be offset, over time, by unplanned gains.

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[11]The elasticity is derived as follows. From (1) we have:

$$D_j = E_j + E_j p b_j$$

The elasticity of D_j with respect to p is given by:

$$e_{D_j \cdot p} = \frac{d}{db}\left[E_j + E_j p b_j \right] \cdot \frac{p}{D_j}$$

Taking derivatives :

$$e_{D_j \cdot p} = E_j p b_j \frac{p}{D_j}$$

Substituting for D_j and solving, we get:

$$e_{D_j \cdot p} = \frac{pb_j}{(1 + pb_j)}$$

[12]The exporter can also avail himself of the market in future bonus vouchers which will tend to reduce the risk of fluctuations in the bonus premium and in his export earnings.

The argument that Thomas puts forth that the Export Bonus Scheme may **not** succeed in increasing the level of exports because of uncertainties introduced by changes in the bonus rate and fluctuations in the bonus premium must be qualified. Given a reasonable assumption about the fluctuations in the bonus voucher market and the elasticity of export earnings with respect to changes in the bonus premium, it seems unlikely that the small losses or gains resulting from such fluctuations will have a great effect on the development of the export market. On the other hand, the fact that changes in the bonus rate tend to be relatively large and consequently have a more serious effect on the returns on investment of the exporter leads us to conclude that frequent changes in the bonus rate will hinder the orderly development of the export market.

IV. EXPORT BONUS AND IMPORT COEFFICIENTS

The Export Bonus Scheme is in effect a partial devaluation of the rupee. By maintaining several different rates of bonus, the government is able to maintain what is in effect a multiple exchange rate system.

The devaluation of the rupee was a necessary step since the official rate of exchange was substantially below the real scarcity price and exports were less than optimal. Differential bonus rates were set to increase foreign-exchange earningsA and presumably were set to reflect f) differences in the elasticity of foreign demand for different exports and *ii)* differences in the elasticity of export supply of Pakistani goods.

The argument for discrimination against those exports facing an inelastic foreign demand is well known and needs little discussion here. If exports of these goods were increased, foreign-exchange earnings would decline; hence, these goods should be given no export subsidy. Such is the case with raw jute. Since Pakistan is the only major exporter of raw jute, it is clear that the foreign e'emand for this commodity will be inelastic. Exports of raw jute do not receive ui export subsidy and are in fact subject to an export tax. Similar treatment for exports of raw cotton, however, cannot be justified simply in terms of the elasticity of foreign demand.

Differentials in the export subsidy may also be set to reflect differences in the supply elasticity of various export items which is a weighted average of the elasticities of domestic supply of and domestic demand for the particular goods 13. Those commodities for which the supply and/or the domestic demand is inelastic will also possess an inelastic export supply curve. The export subsidy necessary to increase exports of any commodity by a given amount will be greater, *eeterus paribus,* the more inelastic is the export supply curve.

USee [2, p. 87] for a derivation of the export supply elasticity.

If the bonus rates are determined with respect to their impact on the level of foreign-exchange earnings then the focus should be on *net* earnings at least to the extent of taking account of imported inputs, if not of the alternative uses of domestically produced inputs. The objective of increasing exports is, after all, to increase the level of imports which will remain available for increasing consumption and investment in Pakistan. If targets are set in terms of consumption and investment in Pakistan then the increase in the total value of exports required to satisfy these targets will be a function of the *net* foreign-exchange earnings of the exported goods. In other words, the lower the net foreign-exchange earnings per rupee value of exports, the greater will have to be the gross value of exports in order to increase imports for domestic use by any given amount.

Table II shows the *total* import requirements per rupee unit of final demand of various manufacturing industries, grouped according to their bonus rate. It is easily seen that the industries with the highest import requirements are the ones receiving the highest bonus rate. Taking simple arithmetic averages of the import requirements of each group of industries, we get the following results:

Bonus rate	Import requirement (*rupee input/rupee unit of final demand*)	Number of industries
0 per cent	0.030	6
20 per cent	0.040	4
30 per cent	0.140	33

Thus, it would appear that the bulk of goods manufactured in Pakistan are characterized by both an inelastic export supply curve and high import requirements per unit of output.

Aside from the large and important increases in exports of jute and cotton manufactures, the results of the bonus scheme were less than expected [2, p. 62]. Bruton and Bose suggest that the failure of the bonus scheme to develop new

[14]The differences between the means were tested for statistical significance by use of the statistic for the 't' test, where :

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_{\bar{X}_1 - \bar{X}_2}}$$

The average import requirements of the industries receiving a bonus rate of zero and 20 per-cent were different from the average import requirement of the industries receiving a 30-per-cent bonus at the 1-per-cent and 5-per-cent level of significance, respectively. There was no statistically significant difference between the average import requirement of the industries receiving zero and 20-per-cent bonus rates. The standard errors were as follows:

$$S_{\bar{x}_{0\%} - \bar{x}_{20\%}} = 0.02015$$

and

$$S_{\bar{x}_{0\%} - \bar{x}_{30\%}} = 0.03645$$

$$S_{\bar{x}_{20\%} - \bar{x}_{30\%}} = 0.04391$$

TABLE II

TOTAL IMPORT REQUIREMENTS BY BONUS RATE

Bonus rate	Industry	Total rupee imports/ rupee unit of final demand
(percent)		*(rupees)*
0	Tea	0.01115
	Salt	0.00982
	Chemical fertilizers	0.03960
	Coal and petroleum products	0.09182
	Cotton ginning	0.02348
	Jute pressing	0.00252
20	Sugar	0.00946
	Rice milling	0.01189
	Jute textiles	0.04392
	Dyeing, printing and finishing of textiles	0.09635
30	Canning and preserving of fruits and vegetables	0.23113
	Barkery products and confectionary	0.12268
	Alcoholic beverages	0.02888
	Non-alcoholic beverages	0.07961
	Cigarettes and tobacco products	0.04830
	Cotton textiles	0.05354
	Woollen textiles	0.19298
	Silk and artsilk	0.17206
	Knitting	0.05553
	Thread and threadball making	0.07786
	Footwear	0.06047
	Wearing apparel	0.25227
	Wood, cork and furniture	0.05434
	Manufacture of paper and board	0.12420
	Articles of paper and board	0.07721
	Printing and publishing	0.11822
	Tanning and leather finishing	0.10370
	Leather goods	0.12191
	Rubber and rubber products	0.21020
	Paints and varnishes	0.21403
	Perfumes, cosmetics and soaps/	0.27898
	Matches ' /	0.02288
	Pharmaceuticals and miscellaneous chemical products	0.14590
	Non-metallic mineral products	0.05601
	Basic metals /	0.36073
	Metal goods	0.24600
	Non-electrical machinery\	0.22760
	Electrical machinery and appliances	0.21126
	Transport equipment	0.21222
	Optical goods	0.14800
	Plastic products	0.25529
	Sports goods \	0.01450
	Pens, pencils and related products \	0.06012

products to be exported can be attributed to the fact that for these products "incentives on the supply side generated by the scheme were not strong enough" [2, p. 62]. As we have pointed out above, if one were to judge the scheme in terms of net foreign-exchange earnings rather than in terms of gross earnings, the scheme would be viewed as being even less successful in terms of these 'other' manufactured goods. The incentives necessary to increase net earnings will, of course, be greater than those required to increase gross earnings by an equivalent amount.

In the short run, supplies are relatively inelastic and the effect of the bonus scheme is essentially to divert a larger proportion of a given supply of goods to the export market.

In the long run, however, capacity can be expanded and the effect of differential bonus rates will be to increase investment in those industries with the higher bonus rates relative to those industries with lower bonus rates.

The long-run effects of differential bonus rates need not lead to an inefficient use of resources. Manufacturing industries which now have the highest bonus rates may well be those industries in which Pakistan has a long-run comparative advantage and the encouragement of these industries relative to others might be optimal from the long-run point of view. On the other hand, there is no evidence to suggest that bonus rates have in fact been set according to the comparative-advantage principles, so that the effect of the present export policies may very well have an adverse effect on the long-run growth rate of Pakistan.

V. THE STRUCTURE OF INVESTMENT AND ECONOMIC EFFICIENCY

In actual planning procedures, it is often very difficult to select a simple criterio n for determining what the pattern of investment in industry should be. Often, there are many conflicting goals, each of which implies a different criterion. The planners, of course, are free to choose their own particular set of goals and criteria. One might disagree with these goals but the least one should expect is that the investment programme be consistent with the targets set and the criteria chosen. The Third Five Year Plan states, in regard to investment criteria, that:

> the overriding principle is to create a structure for the industrial sector which is well-balanced internally and in relation to other sectors of the economy, through efficient utilization of investment and manpower resources and *with the minimum strains for the balance ofpayments* [6, p. 464], (Italics added).

One aspect of the industrialization strategy that is consistent with the aim of minimizing the strain on the balance of payments is the reorientation of investment toward "additional capacity primarily for export" [6]. Import substitution, which was a dominant theme during the Second Five Year Plan, is

to be continued but will be stressed primarily with respect to investment and related goods industries and other 'heavy' industries.

The two strategies of export promotion and import substitution are consistent with the "balance-of-payments" criterion for investment. One serves to increase foreign-exchange earnings through increased exports and the other serves to economize on the use of foreign exchange by producing domestically what is currently imported.

The balance-of-payments criterion may not lead to an optimal investment pattern from the point of view of alternative investment criteria. The Third Plan does point out that "the composition of new industrial investment must be determined by assigning the maximum weight to scarce factors, which at the present stage of the country's development are foreign exchange and capital" [6J. The investment criteria should, therefore, at least reflect the desire to maximize the net foreign exchange saved or earned while taking full account of the scarcity of capital. This modified criterion would favour those industries for import substitution which are characterized by relatively low ratios of imported inputs and capital to output and those industries for export promotion which have a relatively high ratio of net foreign-exchange earnings per unit of exports and a low capital-output ratio.

The principal emphasis in import substitution in the Third Plan is to be placed on the establishment of capital and related goods industries. These same industries are also cited as containing export possibilities. It is interesting to ask whether this investment programme is consistent with the goals and scarce factors enumerated in the Plan. As far as we know, the investment programme, as posited in the Third Plan, has been formulated without reference to the kind of calculations undertaken in this paper.

Table III shows the total, direct and indirect requirements of intermediate imports per rupee unit of final demand for forty-three industries, grouped into consumer, intermediate and capital and related goods industries. The average total import requirements for these three broad groups are shown below and compared to their average net foreign-exchange earnings.

The capital and related goods industries have the highest import component and the lowest net foreign-exchange earnings, suggesting that investment in capital and related goods industries is not consistent with the modified balance-of-payments criteria. However, the interpretation of these results must be subject to the following qualifications:

/Wet foreign-exchange earnings~have\l3een calculated on the basis of current inputs only. If capital/and related goods industries have a lower capital-output ratio I ban other indmtries, the disadvantage of a low value for the net

TABLE III

RUPEE IMPORTS PER RUPEE UNIT OF FINAL DEMAND

industry	Total	Direct	Indirect
	.rupees,		
A. Consumer Goods			
1. Sugar	0.00946	0.00388	0.00558
2. Salt	0,00982	0.00612	0.00370
3. Tea	0.011J5	0.00416	0.00699
4. Rice	0.01189	0.00566	0.00623
5. Sports goods	0.01450	0.00732	0.00718
6. Matches	0.02288	0,01334	0.00954
7. Alcoliolic beverages	0.02888	0.01481	0.01407
8. Cigarettes and tobacco products	0.04830	0.04064	0.00766
9. Cotton textiles	0.05354	0.03592	0.01762
10. Wood, cork and furniture*	0.05434	0.01291	0,04143
11. Knitting	0.05533	0.03183	0.02370
12. Pens, pencils and related products	0.06012	0.03167	0.02845
13. Footwear	0.06047	0.03329	0.02718
14. Non-alcoholic beverages	0.07961	0.07505	0.00456
15. Printing and publishing	0.11822	0.11643	0.00179
16. Leat her goods	0.12191	0.09896	0.02295
17. Bakery products and confectionary	0.12268	0.02612	0.09656
18, Optical goods	0.14800	0,08645	0.06155
19. Silk and at'tsilk	0.17206	0,17180	0.00026
20, Woollen textiles	0.19298	0.18728	0.00570
21. Canning and preserving of fruits ancl vegetables	0.23113	0,21635	0.01478
22. Wearing apparel	0.25227	0.24000	0.01227
23. Plastic products	0.25529	0.20776	0.04753
24. Perfumes, cosinctics and soap	0.27S98	0.26668	0.01230
B. Intermediate Goods			
1. Jute pressing	0.00252	0.00005	0,00247
2. Cotton ginning	0,02348	0.00213	0.02135
3. Chemical fertilizers	0.03960	0.00446	0.03514
4. Jute textiles	0.04392	0.03136	0.01256
5. Articles of paper and board	0.07721	0.04503	0.03128
6. Thread and thread ball making	0.07786	0,04276	0.03510
7. CoaJ and petroleum products	0.09182	0.06957	0.02225
8. Dyeing, printing and finishing of textiles	0.09635	0.05662	0.03973
9. Tanning and leather finishing	0.10370	0.08108	0,02262
10. Manufacture of paper and board	0.12420	0.01065	0.11355
11. Pharmaceuticals and miscellaneous chcmicals	0.14590	0.08369	0.06221
12. Rubber and rubber products	0.21021	0.13436	0.07585
13. Paints and varnishes	0,21403	0.00571	0.20832
C, Capita! and Related Good.*			
T. Non-metafJic mineral products	0,05601	0.00234	0.05367
2, Electrical machinery	0.21126	0.12257	0.08869
3. Transport equipment	0.21222	0.16835	0.04387
4. Non-electlical machinery	0,22760	0.16640	0.06120
5. Metal goods	0.24600	0,12607	0,11993
6. Basic metals	0.36073	0.30068	0.06005

^Includes saw nulling and metal furniture.

foreign-exchange earnings must be balanced against the advantage of economizing on capital.

Industry group	Total rupee imports/ rupee unit of final demand	Net foreign-exchange earnings as per cent of export value*
Consumer goods	0.101	53.7
Intermediate goods	0.096	64.6.
Capital and related goods	0.219	44.3

"Calculated from Table I.

ii) The above calculations are based on the assumption of infinite demand elasticities so that average and marginal net foreign-exchange earnings are the same. In most cases, the average value may be taken as an approximation to the marginal value. However, for those goods facing a downward sloping foreign demand curve, the marginal value will be below the average. If the foreign demand for the output of Pakistan's capital and related goods industries is more elastic than the demand for other goods, then the marginal net value of foreign exchange earnings could be higher for capital and related goods industries than for other goods even though the average value of this coefficient is lower.

iii) The computations of net foreign-exchange earnings take account of imported inputs only. If we had included the export alternatives of domestically produced inputs, the relative magnitudes of the net foreign-exchange-earnings coefficient may be reversed. The adjustment to take account of domestically produced inputs would, in fact, primarily affect the consumer-goods industries which are dominated by the textile industries component.

iv) Finally, the figures shown for each industry group are the unweighted arithmetic mean of the net foreign-exchange earnings for each component industry of the group. The relative positions of the aggregates do not necessarily apply to every pair of industries; chosen one from each group.

The first and second qualifications are not likely to be important. It is unlikely either that capital and related goods industries are less capital intensive than other industries or that the foreign demand for these goods is significantly more elastic than for other manufactures.

/ The third and fourth qualifications are important. In an earlier study [8], I we found evidence which supports the investment programme as stated in the Plan; namely, that many consumer-goods industries already established have negative value added when their outputs and inputs are valued at 'world prices'. \ Of course, not all industries within the consumer industries group could be so \ characterized. Some consumer-goods industries did show a positive value

added while a few capital and related goods industries showed a negative value added. Also, the study referred to past investment. Clearly, caution must be exercised in extending the conclusions to predict the effect of future investment.

The Third Plan also makes provisions for export expansion in "industrial products based on raw materials which are available in the country in adequate quantities, such as cement, fertilizers, petro-chemical products and paper" [6]. These industries, while they may have a high capital coefficient, have among the lowest total imported intermediate input requirement *see* (Table III). Hence, they should be given a much more prominent role in the export strategy. Surprisingly they are not. Almost the entire increase in production of fertilizers and cement expected during the third-live-year-plan period will be absorbed by the expanding domestic demand for these commodities.

VI. SUMMARY AND CONCLUDING REMARKS

In this paper, we have examined two propositions regarding the Export Bonus Scheme, namely /) that the scheme permits manufactured goods to be exported at a price, in terms of foreign exchange, which is less than the foreign-exchange cost of direct and indirect imported inputs used to produce the commodity, and *ii)* that the effectiveness of the Export Bonus Scheme may be seriously reduced because of uncertainties regarding the bonus rate and bonus premium.

With respect to the first point, we have shown that while there is a large range in the net value of foreign exchange earned for different exported commodities, all commodities earn more foreign exchange than is embodied in their production. As for the second point, we have shown that the receipts of exporters are affected to a greater extent by changes in the bonus rate, because these changes tend to be quite large when they are made, than by the day-to-day fluctuations in the bonus premium.

The large dispersion in the net foreign-exchange earnings for manufactured goods raises the question of what commodities should be exported, and in the longer run, in what industries should Pakistan invest in order to increase its exports. These questions of investment criteria go beyond the scope of this paper. However, we have pointed out that the present investment targets of the Third Five Year Plan emphasize those industries which are likely to have a high import cost, both in terms of capital and intermediate inputs. This pattern of investment may well be inconsistent with the criteria enumerated in the Plan although our results are subject to a number of qualifications.

We have also found that the present structure of the bonus rate is such that those industries which have the highest import component are receiving the largest export subsidy through the bonus scheme. In other words, the

Export Bonus Scheme provides incentives for the expansion of industries which have a large import component without adequately taking account of other "efficiency" criteria for investment.

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The Operation of the Export Bonus Scheme in Pakistan's Jute and Cotton Industries

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The Operation of the Export Bonus Scheme in Pakistan's Jute and Cotton Industries

Qazi Kholiquzzaman Ahmad

INTRODUCTION

The author's intention is essentially to extend the Bruton and Bose study of the Pakistan Export Bonus Scheme [1], in terms of both time and commodity. However, in this paper we examine the operation of the scheme in jute and cotton industries only.

Very briefly, the scheme works in the following way[1]. The exporter of a "bonus commodity" surrenders his foreign-exchange earnings to the State Bank of Pakistan and receives, in addition to the rupee equivalent, a voucher that entitles its owner to purchase foreign exchange equal in value to 20 or 30 per cent (depending on the commodity exported) of the amount earned. The voucher can be utilised for obtaining foreign exchange for use in a) importing a wide range of goods, *b)* business travels, and c) opening and maintaining commercial offices abroad. Vouchers are issued for all goods except raw jute, raw cotton, hides and skins, raw wool, and rice. The voucher is freely transferable, and its price (which is commonly known as the premium) is determined by the market. Imports permissible under bonus vouchers include a large number of items — both capital and consumer goods.

Our analysis is based on the analytical framework developed by Bruton and Bose [1, Section I]. We do not reproduce it here. However, our basic assumption is that, for jute and cotton goods, both domestic and foreign demand

[1] For a detailed discussion, *see* [1].

curves are downward sloping and the marginal cost curve is rising upward to the right. The introduction of the scheme will lead to an increase in the export of a commodity, the magnitude of which depends on the elasticities of its demand curves and the marginal cost curve.

Bruton and Bose [1] covered three years, *i.e.,* 1959 to 1961. However, to view the scheme from a longer-run perspective and to emphasize certain points, we examine the operation of the scheme from 1959 through December 1964 and, where possible, June 1965.

In this paper, we shall be mainly concerned with the following points:

a) to examine the estimate made in [1] of the "loss" of foreign exchange during 1959 to 1961 due to reduction in the export of raw jute and raw cotton consequent on the bonus scheme, and to figure out the position during the whole period under review, taking into account the stock position, and relating exports to more appropriate production figuresZ;

b) to examine the estimate made in [1] of the foreign-exchange "gain" from increased export of jute and cotton manufactures during 1959 to 1961, and to make an estimate for the whole period under review;

c) to explain the year-to-year developments in all cases; and

d) if it is found that the export (of jute and/or cotton manufactures) has not increased enough to mean a good response to the incentives provided by the scheme than try to locate the bottleneck.

II. THE JUTE INDUSTRY

Exports* of jute manufactures have earned a 20-per-cent bonus since the inception of the scheme. Hessian cloth and gunny bags are the two main types of jute manufactures and their export constitutes all but a very small proportion of the total export of jute manufactures, We shall confine our discussion to these two products. Production and export of other jute products are too small to make an individual study of any value, while at the same time their prices lack comparability and, therefore, make aggregation of their values meaningless.

There has never been any bonus on the export of raw jute, so it may be suspected that the scheme has had some adverse effects on the export earnings from raw jute. It has been estimated [I, p. 22] that the scheme was responsible

2For example, in [1], the production of 1956/S7 has been taken to be the production of 1956 and related to the export of 1956. As the crop year is on July-June basis, the export during January-June 1956 could have no relation to the production of 1956/57.

[^] Throughout this paper, by the word "exports" we mean physical quantity of exports; and when we say "foreign exchange earned" we mean value of exports.

for the "loss" of between Rs. 48 million and Rs. 84 million of foreign-exchange earnings in the years 1959-61 by causing a reduction in the export of raw jute. **It** has also been estimated **[1,** p. 30] that the scheme, during the same period, **accounted** for an increase of Rs. **372** million in the foreign-exchange earnings of jute manufactures. The resultant "gain" of foreign-exchange earnings from the jute industry, as a whole, is between Rs. 324 million and Rs. 288 million.

A. Raw Jute

The relevant data on raw jute are presented in Table I. The ceiling on jute acreage, which was operative until 1959/60, appears to have had little effect on the acreage actually cropped, which varied between 83 and 139 per cent of the licensed area [2]. It appears, therefore, that if the farmers wanted to crop more, they did so notwithstanding the ceiling regulation. The variation in acreage actually cropped was largely due to changes in expected prices. Hussain [3] has found that Pakistani farmers growing cash crops were quite responsive to price changes.

Production, however, is also a function of yield per acre. In 1959/60, the low production was due to low acreage, and low acreage appears to have been caused mostly by low prices in the previous year. In 1961/62, both acreage (2.061 million acres) and production (1.244 million tons) reached the maximum so far attained due to unusually high prices in the previous year. Prices were falling in the following three years resulting in lower and lower acreage, but the fall in production of 1962/63 and that of 1964/65 was more than proportional because of very low yield per acre.

We do not mean to imply that the supply[4] of raw jute has been perfectly elastic. What we wish to emphasize is that the supply has been fairly elastic throughout the period under review, as in the years in which production was low due to low productivity, carryovers from previous years were large enough to ensure reasonably elastic supplies. A glance at the supply and stock series makes it clear that, with the prevailing domestic and foreign demands, the two markets did not have to compete for limited supplies — with the possible exception of 1960/61. In that year too, the large stock of 214.4 thousand tons suggests that the rather keen competition was not so much for the limited supply but probably more due to the fact that carryover was comparatively low, leading to speculative restriction of sales.

In 1958/59, there was a decline in the absolute quantity of raw jute exported as well as in the proportion of the total supply and of the total crop exported. There was, however, a rise in the absolute quantity of raw jute used in domestic mills as well as in the proportion of the total supply and of the total crop used in domestic mills. As the supply was definitely not the bottleneck, the decline in the

4 Quantity supplied is defined here as production plus carryover from the previous year.

TABLE I

STATISTICAL. POSITION OF RAW JUTE **(1955/56 — 1964/65)**

(*iquantity in 000 tons)*

Year	Production	Carry-over	Total supply (2)+ (3)	Export	Domestic mill use[a]	Farm consumption[b]	Total distribution (5)+(6) +(7)=(8)	Stock (4)—(8) =(9)	Foreign exchange earned *{mil. Rs.)*	Average value of exports *(per ton)*	Domestic wholesale price *(per ton)*	Export as percentage of output *(per cent)*	Export as percentage of supply *(per cent)*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1955/56	1,161.0	71.4	1,232.4	1,015.0	**331.1**	47.5	**1,193.6**	38.8	**829.2**	817		87	82
1956/57	985.0	38.8	1,023.8	726.4 **(—28.4)**	154.6 (+17.9)	59.7	940.7	S3.1	705.9	972 (+19.0)		**74**	**71**
1957/58	1,107.0	S3.1	3,190.1	* 854.3 (-1-17.6)	168.0 (+8.7)	46.3	**1,068.6**	121.5	853.6	**1,000 (+2.9)**	823	78	71
1958/59	1,071.0	121.5	**1,192.5**	729.8 (—14.6)	215.9 (+28.5)	34.1	979.S	212.7	654.8	**897 (—10.3)**	**731** (—11.2)	***68***	**61**
1959/60	992.0	212.7	1,204.7	860.3 (+17.9)	274.1 (+27.0)	29.5	1,163.9	**40.8**	**729.1**	**848** (—5.6)	906 (+23.9)	S7	71
1960/61	1,004.0	40.8	1,044.8	526.8 (-38.8)	259.9 (—5.2)	43.7	830.4	214.4	848.1	1,610 (+89.9)	1,683 (+85.7)	**43**	50
1961/62	1,244.0	214.4	1,458.4	719.4 (+36.6)	283.9 (+9.2)	19.7	1,023.0	435.4	349.6	1,181 (—26.6)	**1,132 (—32.7)**	58	49
1962/63	**919.0**	435.4	1,354.4	774.4 (+7.6)	311.4 **(+9.7)**	45.7	**1,131.5**	222.9	792-9	1,024 **(-13.3)**	**893** ***(—21.1)***	84	57
1963/64	1,049.0	**222.9**	1,271.9	768.3 (—8)	346.8 (+11.4)	28.2	**1,143.3**	128.6	753.6	**980 (—4.3)**	***926*** **(+3.8)**	71	***60***
1964/65	951.0	128.6	1,079.6	697.1 (-9.3)	304.1 (—12.3)	35.2"	1,036.4	43.2	837.7	**1,202 (+22.7)**	**1,239 (+33.8)**	**74**	***65***

Source: **CSO** ***Statistical Bulletins.***

Figures within brackets are percentage changes relative to the previous year.

aThe carryover in 1355/56 has been taken from [5]. The rest are calculated. Themethodofcalculationisevidentfromthetable.

[a]Tfce farm consumption figures have been calculated from the "Home Consumption" figures given in the table referred to in footnote ***a*** "which includes both domestic mill consumption and farm consumption. The mill consumption figures have been taken from CSO ***Statistical Bulletins*** and were found to tally with mill consumption figures given in [5, Table IV].

export is explained by slack foreign demand — as evidenced by a 10-per-cent decline in the average value of exports, and by the low total world export of only 780 thousand tons (of which Pakistan's share was 93 per cent). The bonus scheme was introduced in January 1959 and so a breakdown of 1958/59 is to be considered. There was a decline in exports in January-June 1959 from those of July-December 1958[3]. This small decline in exports can confidently be attributed to a weak foreign demand as the foreign price fell to Rs. 876.00 per ton from Rs. 917.00 per ton during the previous six months.

In the year 1959/60 also, the scheme did not cause a reduction in raw-jute exports as the supply was large enough to cater to the slightly increased domestic demand, leaving enough even to call for a reduction in the export price for increasing exports. A reduction of the export price by 6 per cent was accompanied by an increase of 18 per cent in the export, still leaving a stock of 40.8 thousand tons at the end of the period. Any further increase in the export would probably not have been possible without a drastic cut in the export price as the total world export in that year was about 937 thousand tons (of which Pakistan's share was 92 per cent).

With domestic demand rising and the small carryover, wholesalers appear to have become speculative from the beginning of the next year, 1960/61. The domestic price rose to Rs. 1683.00 and the export price to Rs. 1610.00 per ton from Rs. 906.00 and Rs. 848.00, respectively in the previous year — the percentage increases being 85.7 and 89.9, respectively. If we look at the breakdown of that year, we shall see that the domestic price rose from Rs. 1024.00 in January-June 1960 to Rs. 1433.00 in July-December 1960 (40 per cent) and to Rs. 1933.00 in January-June 1961 (35 per cent); and the corresponding increases in the export price were from Rs. 860.00 to Rs. 1361.00 (58 per cent) and to Rs. 2028.00 (49 per cent). Prices are not likely to jump like this in response to the rather mild changes experienced in domestic demand for raw jute. In fact, the year ended up with a lower mill consumption than the previous year. The price behaviour, therefore, seems to indicate that there was a speculative force in operation. The result was a 39-per-cent reduction in the export and a 5.2-per-cent reduction in the domestic mill consumption. The contention that speculation was mainly responsible for low exports can be backed up by the fact that the year ended up with a huge stock of 214.4 thousand tons.

However, it has to be recognised that the speculation leading to high prices was induced, among other things, by the acceleration of the domestic mill consumption, as the export market for jute manufactures became comparatively more lucrative due to the bonus scheme. Hence, in the ultimate analysis, it seems

'Breakdown of the export of raw jute in 1958/59:

July-December	**1958**	**378,000**	**tons**
January-June	**1959**	**351,000**	**tons**

certain that the bonus scheme was responsible for some "loss" of foreign exchange from raw-jute exports in 1960/61, as the export market appears to have been strong enough to absorb a larger quantity of raw jute at favourable prices. Nevertheless, it is not obvious that the scheme was responsible for a cut in the export of raw jute to the extent to which the (already rising) domestic mill consumption was accelerated. A look at the stock figures will make our contention clear. Hence, it is rather difficult to determine quantitatively the true "loss" of foreign-exchange earnings from raw jute due to the scheme. Accordingly, no attempt is made at such determination here.

In the following three years *(i.e.,* 1961/62, 1962/63, and 1963/64) the increases in the domestic mill consumption were 9.2 per cent, 9.7 per cent, and 11.7 per cent, respectively. Supplies were large enough in all these years to allow larger increases in both domestic mill consumption and exports than those which actually occurred; so the question of any bidding away of raw jute by the domestic market from the export market can be rejected. In view of the large stocks carried in these years, the failure of raw-jute export to increase further should be sought elsewhere, and not attributed to the bonus scheme.

In the year 1964/65, both domestic and export prices rose significantly — the former by 34 per cent and the latter by 23 per cent—and, in the same year, domestic mill consumption and export of raw jute declined by 12.3 per cent and 9.3 per cent, respectively. The fact that domestic mill consumption declined relatively more than the export of raw jute in the face of a substantially greater relative price increase clearly indicates that there was no bidding away of raw jute from the export market by the domestic market in this year. If anything, the opposite was the case.

From the above analysis, it is now clear that with the possible exception of 1960/61, the bonus scheme did not shift the domestic demand curve for raw jute to the right enough in any year to lead to a bidding away from the export market. After meeting domestic demand, there has always been enough to meet export demand. It is obvious that the already rising domestic mill consumption was accelerated by the scheme, but it can be said confidently that the acceleration only reduced the stocks which would otherwise have been carried. Looking at the stock and domestic mill consumption series, we feel that not only did the increases in domestic mill consumption that actually took place in various years not bid away raw jute from the export market but that considerably higher increases would not have done so; and, in fact, more could have been supplied to both markets if "other things" had worked well.

Our conclusion, then, is that only in 1960/61 was there any significant "loss" of foreign exchange from the export of raw jute due to the scheme.

Bruton and Bose estimated the trend value of domestic mill consumption and attributed the excess of the actuals over the trend values to the scheme and

contended that this "excess" of raw jute used **in** domestic mills could have been **exported** without price reductions or with slightly reduced prices, had not the bonus scheme been in operation. However, as we have seen, the contribution of the scheme to the acceleration of domestic mill consumption of raw jute has not been large enough in any year to require bidding away of raw jute from the export market. Furthermore, the trend values of mill consumption of raw jute they have arrived at seem to be an underestimate, as a number of other measures were strengthened after the introduction of the scheme which definitely had an effect on the "excess" attributed to the bonus scheme. Some of these measures are discussed below.

B. Jute Manufactures

In any attempt to isolate the export-promotion effect of the bonus scheme by examining the trend and extent of export performances, one should take into account other important export inducements such as *a)* increased agricultural and industrial production, in general, and the export orientation of the pattern of growth in particular, *b)* diversification of export markets, c) strengthening of institutional framework for export promotion, *d)* bilateral and multilateral trade agreements, and *e)* fiscal concessions such as excise rebates, the sales tax exemption, and the exemption of customs duties on the imported materials that go into the production of exportables.

It is to be noted that an upward trend in both ouptut and export of jute manufactures existed before the bonus scheme was introduced. To repeat, Bruton and Bose assumed trend values of exports and attributed the "excess" of actual export over trend values to the bonus scheme. It may be acceptable that the trend, under certain assumptions, will take care of *a)* above and some of the .other measures mentioned above which were introduced well before the scheme came into effect and have remained unchanged since. If any new measures were introduced, or any measures effective before the scheme were strengthened along with or after the introduction of the scheme, then these will definitely have their share in the "excess". It is not possible to estimate quantitatively the effects of all the various measures which were put into force or strengthened after the introduction of the scheme. But one should keep in mind that such additional measures existed. Having noted this, we shall also, for simplicity, fit a trend to export performances and attribute the "excess" of actual export over trend values to the bonus scheme. But unqualified reliance on our estimate of foreign exchange "gain" due to the scheme is not warranted.

It is clear from Tables II and III that upward trends in output and export of both sacking and hessian were in force well before the bonus scheme came into effect. Now, if the scheme were to have any impact, we would expect an acceleration of the already rising exports. Increases in 1958 over 1957 in output and export of sacking were (rounding) 13 per cent and 28 per ccnt, respectively, while

those of hessian were 16 per cent and 5 per cent; the corresponding increases in 1959 over 1958 were 34 per cent and 145 per cent in case of sacking, and 38 per cent and 71 per cent in case of hessian. It seems doubtful that such great acceleration could have occurred but for the bonus scheme. In both cases, increases in exports were much larger than those in outputs and were made possible by a large release from the domestic market. After 1959, the outputs of both, in general, increased at a declining rate[a] and the reasons for this appear to have been *a)* the big jump in foreign demand in 1959 was not followed by equally big jumps in later years and/or *b)* limited capacity. Accordingly, and for the added reason that between 1959 and 1960/61 there was little or no reduction and thereafter there was an upward trend in the domestic consumption of both sacking and hessian, the rate of increase of export in both cases was, in general, declining. All this is consistent with the straightforward functioning of the scheme.

1) Sacking

In Bruton and Bose monograph [1, p. 24], it was assumed that there was a 12-per-cent trend effect for 1959 and 10 per cent for both 1960 and 1961 in the export of sacking. Our estimated trend effects are different for these years (as can be seen from Table IV) and, having been based on regression analysis, may be better. We have estimated the trend effects in the following fashion.

We have fitted a time trend to export performances from 1956 to 1964. The equation found is

$$X = 28.52 + 15.43T \qquad R2 = .81$$
$$(2.78)$$

where X stands for exports in thousand tons

and T for time (1956 = 1, 1957 = 2, ... 1964 = 9)

We have then calculated the expected values of exports and the rate of growth of exports for different years. These are the rates which we have accepted as the trend effects on exports for different years and have applied them to calculate the trend values of exports. The results are shown in Table IV.

Thus, we obtain an estimate of foreign-exchange earnings from exports of sacking due to the operation of the scheme during 1959-61 of Rs. 201.9 million as against the Bruton and Bose estimate of Rs. 236.3 million [1, p. 25]. The total estimate during 1959 through 1964 amounts to Rs. 344.9 million. We shall now try to explain the year-to-year developments.

[a] **Output of sacking and hessian registered actual declines in 1961 and 1964.**

TABLE II

SACKING PRODUCTION AND EXPORT (1956-1964)

Year	Production (*000 tons*)	Export (*000 tons*)	Foreign exchange earned (*million Rs.*)	Average value of exports (*per ton*)	Domestic prices* (wholesale) (*per ton*)	Percentage of output exported
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1956	103.6	41.5				40
1957	106.8 (+3.0)	40.8	54.2	1328	1482	38
1958	120.5 (+12.8)	52.2 (+27.9)	61.0	1168 (—12.0)	1329 (—10.3)	43
1959	161.9 (+34.3)	127.9 (+145.0)	132.1	1032 (—11.6)	1265 (—5.0)	79
1960	184.8 (+14.2)	114.4 (—10.6)	138.4	1210 (+17.2)	2076 (+64.0)	62
1961	169.4 (—8.3)	138.4 (+21.0)	220.0	1590 (+31.4)	2134 (+2.9)	82
1962	196.5 (+16.0)	145.7 (+5.3)	185.4	1273 (—20.0)	1980 (—7.2)	74
1963	214.1 (+8.9)	144.3 (—1.0)	171.9	1192 (—6.4)	1789 (—9.6)	67
1964	190.4 (—11.0)	146.0 (+1.2)	166.4	1140 (—4.4)	1982 (+10.8)	77

Note: Figures within brackets are percentage changes relative to the previous period. Where necessary, number of bags have been converted into tons on the assumption that 1,100 bags weigh one ton.
*Domestic prices are those prevailing at Narayanganj.

Sources: CSO *Statistical Bulletin* for production and domestic prices.
CSO *Foreign Trade Statistics* for export upto 1961 and for export after 1961 office records of CSO.

TABLE III

HESSIAN PRODUCTION AND EXPORT (1956-1964)

	Production *(000 tons)*	Export *(000 tons)*	Foreign exchange earned *(million Rs.)*	Average value of exports *(j>er ton)*	Domestic prices* (wholesale) ***(per ton)***	Percentage of output exported
	0)	(3)	(4)	(5)	(6)	(7)
1956	35.0	24.7	35.0	1417		71
1957	37.2 (+5.2)	26.7 (+8.1)	37.6	1408	2317	72
1958	43.1 (—15.8)	28.0 (+4.9)	46.4	1657 (+17.7)	2189	65
1959	59.4 (+37.8)	47. S (+70.7)	74.0	1548 (-6.6)	2218 (+1-4)	80
1960	69.7 (+17.3)	57.8 (+20.9)	97.8	1691 (+9.2)	2744 (+23.7)	83
1961	67.8 (—2.7)	61.3 **(+6.1)**	114.1	1862 (+10.1)	2897 (+5.6)	90
1962	79.2 (+16.8)	63.0 (+2.3)	109.9	1743 (—6.4)	2856 (-1.5)	79
1963	90.2 (+33.8)	65.2 (+3.5)	117.9	1807 (+3.7)	2552 (—11.0)	72
1964	79. 1 (—12.3)	61.2 (—6.1)	123.5	**2018 (+11.7)**	2590 (+1-6)	77

Note: Figures within brackets are percentage changes relative to the previous period. Where necessary, yards of cloth have been converted into tons on the assumption that 3.750 yards weigh one ton.
^Domestic prices are for 50 x 10 02, of hessian. "Narayanganj.

Sources. CSO ***Statistical Bulletin*** for production and domestic prices.
CSO ***Foreign Trade Statistics*** for export upto 1961 and for export after 1961 office records of CSO.

TABLE IV

EFFECTS OF THE EXPORT BONUS SCHEME ON SACKING EXPORTED AND FOREIGN-EXCHANGE GAIN THEREFROM, 1959-1964

(quantity in thousand tons and value in thousand rupees)

Year (1)	Actual exports *(qty.)* (2)	Estimated trend rate of growth *(per cent)* (3)	Computed trend (<w) (4)	Due to bonus (2)—(4) *(<ity-) J(S)*	Foreign exchange earned due to bonus* *(value)* (6)
1959	127.9	20.6	62.97	64.93	67,007.76
1960	114.4	17.1	73.74	40.66	49,198.60
1961	138.4	14.6	48.51	53.89	85,685.10
1962	J45.7	12.7	95.28	50.42	64,184.68
1963	144.3	11.3	106.05	38.25	45,594.00
1964	146.0	10.2	116.81	29.19	33,276.60
					344,946.72

*** Values have been calculated by multiplying the quantities in Col. (5) with the average value of export in respective years.**

In 1959, output increased by 34 per cent and exports by 145 per cent, while the foreign price declined by 12 per cent and the domestic price by 5 per cent. The declines in both the foreign and domestic prices suggest that bonus incentives supplemented by a weak domestic market caused the impressive jump in exports. The increase of 34 per cent in output can probably be attributed fully to the bonus scheme.

In 1960, exports dropped by 11 per cent in the face of 17-per-cent jump in foreign prices and a 14-pcr-cent rise in output. This seems to be a bit unexpected. The explanation may be that the pressure of domestic prices (which shot up by 64 per cent) caused the reduction of tonnage exported and thereby induced rise in export prices. With consequent further decline in exports, the export prices would probably have risen further, had it not been for the bonus scheme.

In 1961, sacking exports rose by 21 per cent, the foreign price by 31 per cent, and the domestic price by 3 per cent, while output declined by 8 per cent. The decline in output seems to have been due to limited capacity and to 31-per-cent rise in the price of raw jute. The increase of 21 per cent in exports and the 31-per cent jump in the foreign price suggest that the foreign demand for sacking was quite strong in 1961. But, as Bruton and Bose have pointed out, the

domestic market in that year was strong enough to prevent as large a shift as the foreign market would have accepted at favourable prices.

The idea behind the bonus scheme is to enable the exporters to increase exports by reducing export prices and still make a profit. However, in 1962 export of sacking increased by only 5 per cent, while its export price was lowered by 20 per cent. Supply was no constraint, because output rose by 16 per cent. Also, the domestic market was relatively weak, as evidenced by a 7-per-cent decline in domestic prices. All this suggests that the foreign demand for Pakistani sacking was rather weak in that year. In 1963 and 1964, foreign demand was probably even weaker, as evidenced by the fact that exports declined by 1 per cent in 1963 (even though the export price was lowered by 6 per cent) and then rose by only 1.2 per cent in 1964 (in the face of the export price being lowered by another 4 per cent). Supply does not seem to have been any constraint in any of these years, as output rose by 9 per cent in 1963 while domestic price fell by 10 per cent, indicating a weak domestic market; and in 1964, though there was a decline of 11 per cent in the domestic prices, sizeable stocks were carried forward from previous years *(see* [5]) making supply quite large.

Stocks of sacking increased after 1962 [5], even though the exporters lowered export prices significantly in response to bonus incentives, so it appears that in the years 1962-64 the foreign demand for Pakistan sacking was inelastic. The decline in output of sacking in 1964 seems to have been largely due to flagging of its foreign demand.

2) Hessian

Bruton and Bose assumed [1, p. 24] that the trend growth rates for hessian exports were 10 per cent in 1959, and 8 per cent in both 1960 and 1961. We have again used a simple regression equation for estimating trends.

The equation found is

$$X = 19.66 + 5.75\ T \qquad R^2 = ,84$$
$$(0.98)$$

Notations are the same as those used on page 388.

The results are shown in Table V.

Thus, our estimate of foreign-exchange earnings from hessian export due to the bonus scheme during 1959-61 is Rs. 97.1 million, as against the Bruton and Bose estimate of Rs. 120.9 million [1, p. 25], The estimate for the whole period, 1959-64, is Rs. 169.6 million.

TABLE IV

EFFECTS OF THE EXPORT BONUS SCHEME ON HESSIAN EXPORTED AND FOREIGN-EXCHANGE GAIN THEREFROM, 1959—1964

(quantity in thousand tons and value in thousand rupees)

Year	Actual exports (<70')	Estimated trend rate of growth *(per cent)*	Computed trend *iflty.)*	Due to bonus (2)—(4) *(qty.)*	Foreign exchange earned due to bonus *(value)*
(1)	(2)	(3)	(4)	(5)	(6)
1959	47.8	15.6	32.37	15.43	23,885.64
1960	57.8	13.5	36.74	21.06	35,612.46
1961	61.3	11.9	41.10	20.20	37,612.46
1962	63.0	10.6	45.46	17.54	30,572.22
1963	65.2	9.6	49.82	15.38	27,791.66
1964	61.2	8.8	54.18	7.02	14,148.36
					169,622.74

We shall now try to explain the year-to-year development in hessian. The general picture seems to be much the same as that we have seen in case of sacking. In 1959, output rose by 38 per cent and physical volume of exports by 70 per cent. The domestic price rose by 1.4 per cent while the foreign price declined by 6 per cent. Stocks carried from 1958 were decidedly small. The small rise in the domestic price in the face of 24-per-cent decline in the quantity available for domestic use from current output suggests a weak domestic market. The 70-per-cent increase in exports in the face of only a 6-per-cent decline in the foreign price suggests that the foreign demand was such that even larger exports could have been sold at favourable prices, had a larger quantity been available. Thus, the failure of actual output to increase was the immediate bottleneck in 1959.

In 1960, the absolute increase in output of about 10 thousand tons was matched exactly by the absolute increase in exports. The domestic price went up by 24 per cent and the foreign price by 9 per cent. In that year, supply appears to have been limited both by failure of output to increase sufficiently and by refusal of the domestic market to release output. As is pointed out in 11, p. 27], it is not possible to say definitely whether the bottleneck was in raw jute or in mill capacity. However, the comparatively small stock of raw jute, at the end of June 1960, and the 50-per-cent rise in the domestic price of raw jute in July-December 1960 over January-June 1960 suggest that raw jute was largely responsible.

In 1961, output dropped by 3 per cent while exports rose by 6 per cent, the domestic price fell by 4 per cent and the foreign price by 10 per cent. In that year, the supply of raw jute was very large, and the large stock of raw jute at the end of the year proves that jute was not in any way responsible for the limited supply of hessian. So, the drop in output in the face of rising domestic and foreign prices seems to imply that the bottleneck in that year was mill capacity. Both domestic and foreign demand in 1961 seem to have been strong enough to justify a much larger increase in output.

In 1962, output rose by 17 per cent and exports by 3 per cent while the domestic price declined by 1.5 per cent and the foreign price by 6 per cent. In this year, the average yearly premium rose to Rs. 157.00 from Rs. 119.00 in 1961. This seems to have induced exporters to increase exports by reducing the export price. But a 6-per-cent reduction in the export price resulted in an increase of only 3 per cent in exports indicating that in that year foreign demand was not strong. Another, perhaps more important, reason for the small increase in ex~ ports was the rather strong pull of the domestic market which was willing to continue to olfer very high prices to keep hessian at home.

in 1963, output rose by 14 per cent and exports by 3.5 per cent while the domestic price fell by 11 per cent and the foreign price rose by nearly 4 per cent. The big drop in the domestic price indicates a relatively weak domestic demand and the possibility of easy shifting away from it. It seems clear that foreign demand was such that the foreign market would have accepted a larger quantity of exports at favourable prices. Further, the premium was higher in that year than that in 1962, making it more lucrative for the exporters to increase exports. Why was it, then, that exports did not increase to the extent apparently justified, while stocks were building up? Stocks amounted to about 9 thousand tons at the end of June 1963 and continued growing thereafter to rise to 15 thousand tons by the end of June 1964 [5]. It seems difficult to provide a suitable answer to the above question, However, we believe that, having known that because of limited mill capacity for hessian output would not increase much, if at all, in the following year, traders preferred to carry stocks rather than to increase exports as perhaps they could have, by reducing export price, because they expected thereby to get a better price the following year.

In 1964, output dropped by more than 12 per cent. The apparent reason for this drop was a rise in the cost of production as an 18-per-cent increase in the domestic price of raw jute superimposed itself on a limited mill capacity. The physical volume of exports declined by 6 per cent while the export price rose by 12 per cent and the domestic price by 1.6 per cent. An increase of only 1.6 per cent in the domestic price suggests that the domestic market was not sufficiently strong in that year to offer keen competition with the foreign market; and only a 6-per-cent decline in exports in the face of a 12-per-cent increase in the

export price suggests that foreign demand in that year was strong enough to accept a larger quantity of exports at favourable prices. One discouraging factor for the exporter was the fall of the premium to Rs. 145.00 from Rs. 163.00 in 1963. This, together with the decrease in output, prompted traders to raise the export price and prefer to carry stocks which, as noted above, went up to 15 thousand tons by the end of June 1964, and were still at about that level at the end of 1964.

The conclusion that emerges with respect to hessian is that, after the 1962 level of output, mill capacity remained so limited as to be the most important single factor responsible for the failure of exports to increase to the level that would have been justified by the foreign demand. It is because of the limited mill capacity that in both 1963 and 1964 traders preferred to carry stocks rather than export at lower but favourable prices. So the incentives provided by the 20-per-cent bonus do not seem sufficient, in the case of hessian, to induce traders to increase exports.

3) Motion's Two Points

We now turn to two points raised by Richard Mallon [4], First, he suggested that a specific subsidy would be superior to the *acl valorem* bonus scheme in providing incentives to expand exports at lower prices. This appears to be correct *a priori.* The exporters will know how much subsidy they are going to get by exporting one more unit and a lower export price will not mean a reduction in the subsidy. In the case of an *ad valorem* bonus scheme, a lower price means a lower subsidy per unit. Thus, exporters are likely to expand export at relatively lower prices if the subsidy were specific. But empirically this does not seem to be so straightforward. For hessian, the export demand after 1962 was probably elastic enough to justify the lowering of prices and so a specific subsidy would probably have been better in this case. But in the case of sacking, the export demand during the same period appears to have been inelastic, so that any further lowering of prices would not bring about a justifiable increase in exports. If the bonus on sacking during this period had been specific instead of *ad valorem,* it would, by inducing the exporters to lower prices further, have led to a lower foreign-exchange earning than the earnings actually realized. Therefore, an *ad valorem* subsidy seems to be better than a specific subsidy in the case of a commodity with inelastic foreign demand[7], as this will minimise the foreign-exchange "loss" (should there be any). It is, therefore, relatively more risky to allow specific subsidy on a commodity when one does not have a fairly good knowledge about the export-demand elasticity.

7Ideally, there should be no bonus on a commodity with an export demand elasticity less than unity.

Secondly, Mallon calculated that in the year 1960/61 every unit of jute manufactures, exported due to the bonus scheme, resulted in lower foreign-exchange earnings (to the extent of Rs. 110.00) than would have been attained if raw jute had been exported. But his conclusion can be questioned, because the stocks of raw jute at the end of 1960/61 were over 214 thousand tons. These stocks, or at least the excess of these stocks over a traditional stock position of, say, 40 to 50 thousand tons, ought to have been cleared before the possibility of putting those extra few tons used by domestic mills due to the scheme into the export market could be thought of. It is doubtful that the export of raw jute would or could have been expanded to that extent. And, if exports were to be expanded to that extent, the apparently low-price elasticity of export demand for raw jute suggests that to do so would require a drastic reduction in prices. Hence, the Mallon way of calculation of net foreign-exchange benefit from the export of jute manufactures does not seem to be justified in the year 1960/61. Our contention is that the scheme, by inducing an increase in the export of jute manufactures, caused a foreign-exchange "gain" in 1960/61. In fact, as we can see, in none of the years under review, would there have been any justification for using the Mallon concept in calculating net foreign-exchange benefit from the export of jute manufactures.

O. Conclusions

The preceding analysis is not rigorous, and the data are of questionable quality. We believe, however, that the results are sufficiently accurate to warrant attention. The following conclusions may be stated:

i) We have found that there was practically no "loss" of foreign exchange from the export of raw jute due to the bonus scheme. There were "gains" in both sacking and hessian exports due to the scheme. The total "gain" of foreign exchange due to the scheme from the jute industry as a whole, on the assumptions made, amounted to Rs. (344.9+169.6) million, i.e., Rs. 514.5 million during 1959 through 1964. If it is believed that the effect of other export promotion measures was not fully taken care of by the trend values, and even if it is thought reasonable to reduce the "gain" of Rs. 514.5 million by, say, 20 or 25 per cent, we would still have foreign-exchange earnings sufficiently increased in the jute industry due to the scheme.

ii) The question of competition for raw jute between hessian and sacking, discussed in [1, p. 29], does not seem to be important in any of the years under review because of the large stocks of raw jute carried in all the years.

iii) We have seen that mill capacity was more of a restraint in the case of hessian than in the case of sacking for last few years of the period under review. We have also seen that the export of hessian did not increase after 1962 because

exporters preferred to carry stocks rather than expand exports at lower prices, while the export of sacking did not increase after 1962 even though the export price was being lowered and, hence, stocks were carried. In the case of hessian, then, the foreign demand in these years was elastic, while in the case of sacking it was inelastic. Hence, the conclusion that emerges is: export of hessian can be increased justifiably by lowering prices while the export of sacking cannot be so increased. Thus, the contention put forward by Bruton and Bose [1, p. 29] that "the bonus scheme would be more effective_____if it were supplemented by a tax or subsidy programme that countered the elasticities which resulted in less than maximum foreign-exchange earnings" seems to be more important now than it was in 1961. The simplest programme that may be suggested is: different bonus rates for hessian and sacking — higher for hessian and lower for sacking, As it was found that 20-per-cent bonus was not providing enough incentive to increase hessian exports, a 30-per-cent bonus on hessian may be tried, leaving 20-per-cent bonus on sacking unchanged.

iv) We have concluded that Mallon way of calculation of net foreign-exchange benefit from the export of jute manufactures could not be justified.

HI. THE COTTON INDUSTRY

As is the case with raw jute, there has never been any bonus on raw cotton. The bonus on cotton cloth was 20 per cent up to June 1963. It was raised to 30 per cent on July 1, 1963 and to 40 per cent on January 1, 1964. Since June 12, J964, the date on which only two bonus rates came into effect, the bonus on cotton cloth has been 30 per cent. The bonus on cotton yarn was 20 per cent until January 1960, 10 per cent until February 1961, and thereafter none until July 1962. A 10-per-ccnt bonus was reintroduced in July 1962. It was raised to 15 per cent in December 1963, and has been 20 per cent since June 12,1964. Export of cotton waste has been entitled to a 20-per-cent bonus since the beginning of the scheme.

It has been estimated in [1, p. 34] that between Rs. 86.4 and Rs. 99.2 million in foreign exchange were "lost" during 1959-61 as a result of reduction in the export of raw cotton due to the bonus scheme. It has also been estimated in the same source [1, p. 45] that an increase of Rs. 175.8 million in the foreign-exchange earnings of cotton manufactures took place during the period due to the scheme resulting in a net "gain" of between Rs.76 and Rs. 89 million in foreign exchange from the cotton industry as a whole.

A. Raw Cotton

Unlike the jute industry, which is important only in East Pakistan, the cotton industry is divided betweer the two wings — though predominantly located in the West. During the period under review, East Pakistan exported negligible

amount of cotton yarn and practically no cotton cloth, and so the bonus scheme had little to do with the expansion of the cotton industry in East Pakistan. Moreover, it seems reasonable enough to assume that the position will remain virtually the same for a number of years to come. Therefore, in our attempt to see what adverse effects, if any, the bonus scheme had on the export of raw cotton, we shall consider the developments in West Pakistan only. The relevant data on raw cotton in West Palcistn are presented in Table VI. It is clear from the table that output remained virtually stagnant from 1955/56 until 1960/61. It is also clear that there was steady progress from 1959/60 up to 1963/64 in which year output was the highest so far attained. In 1964/65, output declined to 371 thousand tons from 412 thousand tons in the previous year—a 10-per-cent decline. The reason for this was a decline in cultivated area to 3624 thousand acres from 3672 thousand acres in the preceding year, and a decline in yield per acre to 2.8 maunds from 3.1 maunds. If the plan target of over 600 thousand tons during 1970 is to be attained, incentives appear to be called for with respect to both acreage and yield.

Prior to 1952/53, over 85 per cent of cotton output was customarily exported. In succeeding years, exports of raw cotton declined in both the absolute amount and as proportion of output. Thus, there was a declining trend in exports which steepened after 1955/56, well before the bonus scheme came into force. The reason is not far to seek; availability of raw cotton for export was down sharply. There has been a strong response from the domestic textile industry to the heavy protection against foreign competition which it has enjoyed since 1953. This resulted in increasing consumption of raw cotton in West Pakistan mills and increasing shipment to East Pakistan for use in mills there, and, thus, with virtually stagnant output during the 1950's, restricted supply to the export market.

Looking at the stock series, we note that it was not possible to obtain a reliable figure for stocks of raw cotton in West Pakistan on the 1st of July of any year, which is necessary as data on export and mill consumption are on July-June basis. In the absence of this information, we have assumed a stock of V thousand tons at the end of 1957/58, and, by subtracting total distribution from current output, have arrived at the net addition to or depletion of the stock in each of the subsequent years. If 'x' was not very large and available information suggests that it was not, then, by examining the stock series, we can conclude not only that the supply of raw cotton has not been sufficiently elastic to rule out the possibility of competition between the domestic and export markets, but also supply has been so limited in most of the years under review that the bonus scheme, by accelerating the already rising domestic mill consumption, actually caused a reduction in the export of raw cotton. The quantity of raw cotton that would have been available for export, if the bonus scheme had not been in operation, is assumed to have been the "excess" of actual mill con-

TABLE VI

STATISTICAL POSITION OF RAW COTTON IN WEST PAKISTAN (1955/56-1964/65)

(*quantity in 000 tons*)

Year	Production[a] (1)	Export (2)	Shipment to East Pakistan (3)	Mill consumption (4)	Household consumption[b] (5)	Total distribution (2)+(3)+(4)+(5) (6)	Stocks (7)	Foreign exchange earned (*million Rs.*) (8)	Average value of exports (*per ton*) (9)	Domestic wholesale prices[c] (*per ton*) (10)	Export as percentage of output (*per cent*) (11)	Average value of shipments to East Pakistan (12)
1955/56	293	166.6	9.5	142.0	8.0						57	2011
1956/57	300	117.4 (—29.5)	19.1 (+101.0)	152.0	8.0			348.8	2971		39	2027
1957/58	299	78.6 (—33.1)	29.6 (+55.0)	162.0	8.0	279.2	X	210.4	2677 (—9.9)	2118	29	1760
1958/59	278	80.3 (+2.2)	23.6 (—20.3)	178.6 (+9.6)	8.0	290.5	X—12.5	187.3	2333 (—12.9)	1821 (—14.0)	29	1760
1959/60	287	78.4 (—2.4)	27.4 (+16.1)	200.8 (+12.4)	8.0	314.6	X—40.1	180.9	2344 (+.5)	2207 (+21.2)	27	2215
1960/61	296	51.3 (—34.6)	32.1 (+17.2)	201.1 (+.1)	8.0	292.5	X—36.6	134.2	2615 (+11.6)	2384 (+8.0)	17	2619 (+18.2)
1961/62	319	47.6 (—7.2)	46.0 (+43.3)	202.1 (+.5)	8.0	303.7	X—21.3	120.6	2533 (—3.1)	2228 (—6.5)	15	1762 (—32.7)
1962/63	346	109.8 (+130.7)	32.6 (—29.1)	209.8 (+3.8)	8.0	360.2	X—35.5	261.3	2380 (—6.0)	2101 (—5.7)	32	2279 (+29.3)
1963/64	412	155.2 (+41.3)	38.2 (+17.2)	229.9 (+9.6)	8.0	431.3	X—54.8	336.9	2170 (—8.8)	2116 (+.7)	38	2175 (—4.6)
1964/65	372	118.7 (—23.5)	31.4 (—17.0)	239.0 (+4.0)	8.0	397.1	X—79.9	283.5	2390 (+10.0)	2389 (+12.7)	32	2462 (+13.0)

Note: Figures within brackets indicate percentage changes relative to previous year.

Source: CSO *Statistical Bulletins*.

[a]Pakistan also imports some raw cotton but quantities of imports have always been very small and they do not alter the supply position significantly, so we ignored them.

[b]As pointed out by Mr. Mohd Afzal in *The Pakistan Cotton* (July 1965, p. 129), household consumption in whole of Pakistan is conventionally taken to be 50,000 bales or 8.7 thousand tons. For West Pakistan, we have assumed a household consumption of 8 thousand tons.

[c]Prices are those of LSS Punjab R.G. in Karachi.

sumption of raw cotton in West Pakistan over its trend values. We have estimated the trend rates of growth of mill consumption of raw cotton, using the **same** method as was used in case of jute manufactures. The equation is

$$M = 133.98 + 10.5\ T \qquad R^2 = .68$$
$$(2.56)$$

where M stands for mill consumption of raw cotton in West Pakistan and T for time (1955/56 =1, 1956/57 =2, ... 1964/65 =10). The results are shown in Table VII.

We have calculated, though crudely, the foreign-exchange "loss" under two assumptions as to the price effect of the increased exports. First, it seems fairly realistic to assume that the foreign price of raw cotton would not have been affected by the increased quantity exported. Secondly, we have assumed that if the increased quantity was to be exported a moderate price decline, say, 2 per cent, was necessary. Thus, the estimated "loss" of foreign exchange resulting from reduced raw cotton exports due to the scheme was between Rs. 118.2 million and Rs. 95.5 million during the period from January 1959 to June 1965. Our estimate of the "loss" during 1959-61 is between Rs. 84.1 million and Rs. 74.4 million as against the Bruton and Bose estimate of between Rs. 99.2 million and Rs. 86.4 million, calculated under similar assumptions about the price effect of increased exports [1, Pp. 33-34].

As can be seen from Table VI, domestic mill consumption started growing quite rapidly well before the bonus scheme came into effect. It seems quite reasonable to assume that if the scheme had not been introduced, the textile industry, with the heavy tariff protection which it has been enjoying since 1953, would have continued to grow rapidly. However, the bonus scheme, as can be seen, gave a thrust to the already rising domestic mill consumption, and the impressive level of 200.8 thousand tons domestic mill consumption was attained in 1959/60. Virtually no further growth was achieved during the following three years. Thus, we see that the estimated trend has caught up with the actual performance in 1961/62; and in the following year the trend value exceeds the actual. Although the "excess" of actual over the trend values may be attributed to the bonus scheme, if the actual falls short of the trend that cannot be similarly attributed. Accordingly, in both 1961/62 and 1962/63 decreases in the export of raw cotton due to the scheme are assumed to be zero. The following two years again saw acceleration of domestic mill consumption under the impetus of the bonus scheme.

We now try to explain the behaviour of raw cotton exports from year to year. As pointed out earlier, a keen competition was going on between the domestic and foreign market for the limited supply of raw cotton in most of the years under review; and, as a result, the export of raw cotton was a function of the strength

TABLE VII

EFFECT OF THE BONUS SCHEME ON RAW COTTON EXPORTS, 1957 - 1964/65

{quantity in thousand tons and value in million rupees)

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1957/58	166.0				&		S				
1958/59	17S.6	6.2	172.0	6.6	34.3	40.9	78.3	95.4	93.5	17.1	15.2
J 959/60	200.6	5.8	182.0	18.6	78.4	97.0	183.9	227.4	222.8	43.5	38.9
1960/61	201.0	5.5	192.0	9.0	51.3	60.3	134.2	157.7	154.5	23.5	20.3
1961/62	202.0	5.2	202.0	0	47.6	47.6	120.6	120.6	120.6	0	0
1962/63	209.8	4.9	211.9	0	109.8	109.8	261.3	261.3	261.3	0	0
1963/64	229.9	4.7	221.9	8.0	155.2	163.2	336.9	354.1	347.1	17.2	10.2
1964/65	239.0	4.5	232.0	7.0	118.7	125.7	283.5	300.4	294.4	16.9	10.9
										118.2	95.5

Columns:

(1) Actual domestic consumption of raw cotton.
(2) Expected rate of growth of domestic consumption in the absence of the scheme.
(3) Expected domestic consumption in the absence of the scheme.
(4) Additional amounts of cotton that would be available for export in the absence of scheme (Col. (1) — Col. (3>).
(5) Actual export of cotton.
(6) Expected cotton export in the absence of the scheme (Col. (4)+ Co-. (5)).
(7) Actual foreign exchange earned.
(S) Expected foreign-exchange earnings if no price reduction necessary.
(9) Expected foreign-exchange earnings if a 2-per-cent price reduction was necessary.
(10) Estimate of "loss" of foreign-exchange earnings if no price reduction is necessary (Col. (8)—Col. (7)).
(11) Estimate of "loss" of foreign-exchange earnings if a 2-per-cent price reduction is necessary (Col. (9)—Col. (7)).

"Breakdown of actual export and actual foreign-exchange earnings in this year is:

		Qty.	***Value***
July-December	1958	46.0	109.0
January-June	1958	34.3	78.3

In Cols. (5), (6) and (7). the figures are for January-June, 1959. As the bonus scheme was introduced in January 1959, the whole of bonus-induced domestic mill consumption in 1958/59 occurred in the seccr.d half of the year, ***i.e.,*** during January-June 1959.

of the two markets. The following explanation of raw cotton exports is, thus, mostly in **terms** of the strength of the two markets. In 1958/59, exports rose by only 2 per cent in the face of a 13-per-cent decline in the foreign price, while domestic mill consumption increased by 10 per cent in the face of a 10-per-cent decline in the domestic price. In that year, both domestic and foreign markets seem to have weakened; but the domestic market was decidedly stronger than the foreign market. The foreign market was weaker in January-June 1959 than in July-December 1958, as in the former exports were 25 per cent lower, even though the export price was 4 per cent lower.

In 1959/60, the export price rose by 1 per cent and raw-cotton exports fell by 2 per cent, while domestic mill consumption rose by 11 per cent in the face of a 20-per-cent increase in the domestic price. Thus, in that year, the domestic market was very strong and actually bid away raw cotton from the export market. In 1960/61 also, the domestic market was stronger than the foreign market. The result was a 12-per-cent rise in the export price and a 35-per-cent reduction in the quantity exported.

In 1961/62, the export price fell by 3 per cent and exports by 7 per cent; the domestic price fell by 7 per cent with domestic mill consumption rising by a fraction of 1 per cent. The failure of domestic mill consumption to increase was possibly due to the low premium and low bonus rate on cotton manufactures prevailing in that year. But the decrease in exports in the face of a decrease in the export price is difficult to explain.

In 1962/63, the foreign market seems to have been very strong. A 131-per-cent increase in exports occurred in the face of only 6-per-cent reduction in the export price. The domestic market was weaker, as domestic mill consumption rose by only 4 per cent (in the face of a 6-per-cent decline in the domestic price). The bonus scheme does not appear to have made the domestic demand for raw cotton much (if any) stronger than what it would have been in its absence.

In 1963/64, again, the foreign market was quite strong as a 41-per-cent rise in exports took place while the export price fell by 9 per cent. But the domestic market was stronger in this year relative to 1962/63, as a 10-per-cent increase in domestic mill consumption occurred in the face of 1-per-cent rise in the domestic price. This seems to have prevented a further increase in exports.

In 1964/65, output fell by 10 per cent; exports fell by 24 per cent, while the export price rose by 10 per cent; and domestic mill consumption increased by 4 per cent in the face of a 13-per-cent rise in the domestic price. The domestic market appears to have been relatively stronger. This, together with the decrease in output, constituted the export constraint in that year.

B. Cotton Manufactures

Besides the bonus scheme, there are many other measures (several of which we have noted in connection with jute manufactures) which have been in force, and which worked to promote the export of cotton manufactures. As was mentioned in case of jute manufactures, in any attempt to isolate the export promotion effect of the bonus scheme one should make some attempt to "net out" the effects of these other measures.

Since East Pakistan does not export any cotton cloth and a negligible amount of cotton yarn, the bonus scheme does not seem likely to have contributed to the growth of these sectors in that province. As her production of both cotton yarn and cotton cloth is too small, she has to import both from West Pakistan to meet domestic demand. So, combined demand of both the wings for these two commodities has to be taken into consideration for any study of their export performance. To the extent that East Pakistan produces yarn and cloth, her claim on West Pakistan's production of the goods is less. Therefore, the combined production of both the provinces has to be taken into account. Hence, the analysis for these two sectors will be made on the basis of the country as a whole.

1) Cotton Yarn

The relevant data on cotton yarn have been presented in Table VIII. The behaviour of the export series is so irregular that it is not possible to estimate expected values of exports (in the absence of the bonus scheme) in different years by method that was used in the case of jute sacking and hessian. Some other device has to be used, and so it seems necessary that we have a look first at the behaviour of the export series over the period under review.

The bonus on yarn, as mentioned earlier, has been changed many times. This changing bonus on yarn seems to have influenced to a large extent the behaviour of yarn exports. Another closely related factor which seems to have been influential in this regard is the behaviour of the premium. Traders of cotton yarn appear to have reacted strongly to a change in the bonus and/or premium. Thus, in general, lower export has been associated with lower bonus and lower premium.

Column (1) of Table VIII requires an explanation. The "surplus" yarn during a period is total production of yarn during that period *minus* consumption of yarn in the weaving sheds of the mills which produce yarn for the production of cloth. But this "surplus" is not identical with the surplus available for export. Out of this "surplus", the demand of those mills which only do weaving — the handloom industry, the thread ball industry, the net-making industry and the hosiery industry—has to be met. Since no data are available on the consumption of yarn by these industries, it is not possible to isolate the exportable surplus.

TABLE VIII

STATISTICAL POSITION OF COTTON YARN (PAKISTAN), 1957-1965

(January-June)

(quantity in 000 pounds)

Year	'Surplus' yarn	Export	Foreign exchange earned	Average value of exports (*000 Rs.*)	Domestic wholesale price indices (1959/60 =100)	Per cent of surplus exported
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1957 January-June	83,241	26,676	51,875	19.4		32.0
1957 July-December	90,444	13,788	25,135	18.2	113.98	15.2
1958 January-June	86,459	1,673	3,180	19.0		1.9
1958 July-December	102,244	5,091	9,135	17.9	96.96	2.5
1959 January-June	112,686	22,970	34,371	15.0		20.4
1959 July-December	119,198	59,558	88,511	14.8	100.00	50.0
1960 January-June	111,665	63,538	86,887	13.6		56.9
1960 July-December	126,445	25,946	49,846	19.2	110.84	20.5
1961 January-June	105,147	13,284	23,766	17.9		12.6
1961 July-December	117,361	1,966	4,199	21.4	111.27	1.7
1962 January-June	108,913	3,003	5,973	19.9	110.68	2.8
1962 July-December	122,679	2,075	4,461	21.5 (+8.0)	107.13 (—3.2)	1.7
1963 January-June	118,313	6,423	12,183	19.0 (—11.6)	106.19 (—.8)	5.4
1963 July-December	155,752	10,047	19,471	19.6 (+3.1)	110.53 (+4.0)	6.5
1964 January-June	142,462	48,930	79,687	16.3 (—16.8)	113.18 (+2.4)	34.3
1964 July-December	151,941	40,991	70,386	17.1 (+4.9)	113.25	27.0
1965 January-June	146,468	36,772	71,774	19.5 (+16.8)	118.25 (+4.4)	25.1

Note: Figures within brackets are percentage changes relative to previous period.

Source: CSO *Statistical Bulletins*.

The development in cotton yarn up to 1961 has been clearly explained in [1, Pp. 38-40). The introduction of the bonus scheme at a time when there was supply of yarn available for export resulted, as expected, in an expansion of exports at lower prices. Then, as the bonus rate was reduced accompanied by a falling premium, exports declined and the export price rose. Nevertheless, supply does not seem to have been a constraint and when, in February 1961, the bonus was completely withdrawn, the export of yarn fell to negligible amounts. The reason for such a drastic decline was not limited supply available for export, nor was it the unwillingness of the domestic market to release output (as stocks appear to have been increasing). The reasons, as pointed out in [1, p. 41], were complete absence of artificially created incentives for the first time since 1956, preference of the traders to carry stocks of yarn in anticipation of some change of export policies affecting yarn, and probably the fact that the export of cloth was still earning bonus. Up to June 1962, there was no bonus on yarn and the reasons for the low export of yarn in the period January-June 1962 are similar to the ones listed above.

In August 1962, a 10-per cent bonus on yarn was reintroduced. During July-December 1962, the export price went up by 8 per cent over that of the previous shipping period and yet export declined to 2,075 thousand pounds in the face of a weak domestic market (domestic price fell by 3 per cent). The reason for this negative response seems to be that the 10-per-cent bonus did not provide enough incentive to expand exports at lower prices. The premium at that time stood at Rs. 148 — near enough to the six-year mean not to be a significant factor.

During the next two shipping periods, the domestic market was relatively weak, as domestic prices declined slightly in January-June 1963 and rose by about 4 per cent in the following period. The premium picked up was Rs. 166.00 and Rs. 159.00, respectively. During January-June 1963, the export price declined by 11 per cent, but rose by 3 per cent in the following period. Exports were only 6,260 and 8,619 thousand pounds, respectively. It appears that traders were still not happy with a 10-per-cent bonus of these two periods; otherwise there seems to be no reason why prices were not lowered to increase exports. The export market appears to have been strong enough to accept larger quantities of exports at favourable prices.

In January 1964, the bonus on cotton yarn was raised to 15 per cent and on June 12, 1964, to 20 per cent. In the January-June 1964 period, exports rose to 48,930 thousand pounds at a price which was 17 per cent lower. The traders responded to the incentive provided by the increased bonus by lowering export price to increase exports. In the following two shipping periods, July-December 1964 and January-June 1965, the bonus rate was 20 per cent and the premiums were Rs. 144.00 and Rs. 150.00, respectively. But exports declined by 16 per cent and 10 per cent in the two periods, respectively. The domestic price rose slightly in July-December 1964, and by about 4 per cent in the following

period. The 4-per-cent rise in domestic prices during January-June 1965 appears to be due to deliberate restriction of supply to the domestic market for speculative purposes. This conclusion is suggested by the fact that the supply available for domestic use from the current output was the same as that in the previous period, because the fall in "surplus" in this period was matched by the fall in exports.

Domestic demand for yarn may also have been rising, but the domestic market does not seem to be the constraint. The low premium in these two periods had some depressing effects, but this cannot explain the total variations. Another factor that seems to have been responsible for falling exports is the existence of a lower bonus on yarn than on cloth. During these two periods, the bonus on cotton cloth had been 30 per cent. The 20-per-cent bonus on yarn during these periods provided comparatively less incentive than was provided by the 30-per-cent bonus on cloth.

Similarly, during January-June 1964 when the spread between the bonus on yarn and that on cloth was even larger, the export of yarn did not increase, while the supply was sufficient and foreign demand was such as would allow larger exports at favourable prices. All this, however, boils down to speculation and expectation on the part of traders, because the supply of yarn does not appear to have been so limited in any year under review to make it necessary for either the domestic market or the export market to have to bid away yarn from each other. If it was necessary for the two markets to compete with each other for a limited supply, then the spread between the bonus allowed on yarn and on cloth would have been of importance.

Our conclusion, then, is that a changing bonus on yarn, a changing premium and, above all, speculation and expectations on the part of traders are the factors responsible for the erratic behaviour and unsatisfactory performance of the export of yarn.

The question raised in [1, p. 41] about the extent to which yarn and cloth were exported at the expense of each other does not seem to be relevant if we use the definition of "surplus" yarn which was given at the beginning of this section, and note that only a small percentage of total production of cloth has to use yarn from the "surplus". We shall make an attempt to quantify the effects of the scheme on yarn exports in subsection 3).

2) Cotton Cloth

The relevant data are presented in Table IX. The nature of the export series does not allow estimation of trend values by fitting a time trend. It is necessary to use some other device to estimate trend values, and so it seems better to examine first through the year-to-year developments.

The developments up to 1961 have been explained in [1, Pp. 35-37], Nevertheless, it seems necessary to start from 1959, as certain points need emphasis. There was a very good response from the traders immediately after the scheme was introduced and exports jumped in 1959 by about 308 per cent over the 1957 level despite a 34-per-cent fall in the export price (comparison is made with 1957 rather than with 1958 as the condition of textile trade was unusually depressed in the latter year). Even though the increase in the export was matched by an increase in production, there was a rise in domestic prices, which may be attributed to increased domestic demand and/or to deliberate reduction in the supply to the domestic market for the building up of stocks for future exports. However, exports accounted for only 6.8 per cent of production and supply does not appear to be much of a barrier to further expansion of exports in this period. Foreign demand also appears to be such as would justify further lowering of prices for expanding exports. It appears, therefore, that speculation and expectation have had much to do with restricting any further expansion of exports in 1959.

In 1960, exports rose by 79 per cent in the face of a 17-per-cent rise in the export price. This means that the foreign demand in that year was very strong. But further increase in exports was prevented by failure of output to increase more than 2 per cent, and strong competition by the domestic market for the limited output. The failure of output to rise has been attributed to limited raw cotton [1, p. 37]. Raw cotton was limited, no doubt, but as, we have seen, stocks of cotton yarn were increasing. Why were these stocks of yarn not used to produce cloth? The answer cannot be found without reference to speculative demand on the part of yarn holders. Thus, it seems that unwillingness of yarn traders to make yarn available for the production of cloth was the more important barrier.

In 1961, output increased by 11 per cent (70 million yards) but exports declined by 29 per cent (22 million yards), with the export price going up by 6 per cent. The domestic market was not a very strong competitor, as domestic prices rose by less than 1 per cent. The decline in exports was, therefore, probably due to the falling premium and speculative restrictions. The foreign market appears to have been strong enough to accept a larger quantity at favourable prices, and the supply was not a barrier in that year.

In 1962, output rose by about 4 per cent (26 million yards) and exports by 17.5 per cent (10 million yards) through a 12.5-per-cent reduction in export prices. Of the total exports of 63.1 million yards in that year, over 41 million yards were exported during July-December 1962. As was noted earlier, the bonus on cotton cloth was raised to 30 per cent in July 1962. The jump in exports in July-December 1962 seems to have been primarily due to this. If we looked at the six-monthly exports from January-June 1961 to January-June 1962, we can conclude that after the initial impetus the 20-per-cent bonus was probably not providing

TABLE IX

STATISTICAL POSITION OF COTTON CLOTH (PAKISTAN), 1956-1965 (January-June)

(quantity in million yards)

Year (1)	Output (2)		Export (3)		Average value of export *(per 100 yards)* (4)		Index numbers of domestic wholesale price (1959/60=100) (5)		Per cent of output exported (6)
1956 January-June	236.9	500.4	8.4	16.9				96.68	3.4
1956 July-December	263.5		8.5						
1957 January-June	258.2	527.0	8.2	10.3	90.5	91.7			2.0
1957 July-December	268.8		2.1		96.5			91.30	
1958 January-June	287.1	576.3	1.1	4.1	102.9	74.9			.7
1958 July-December	289.2		3.0		64.7			78.31	
1959 January-June	308.9	618.5	9.8	42.1	61.7	60.4			6.8
1959 July-December	309.6		32.3		60.4			100.00	
1960 January-June	296.0	628.8 (+1.7)	46.8	75.5 (+79.3)	70.0	70.4 (+16.6)	99.43		12.0
1960 July-December	332.8		28.7		71.2		99.43	100.34	
1961 January-June	350.3	699.1 (+11.2)	32.0	53.7 (—28.9)	75.5	74.5 (+5.7)			7.7
1961 July-December	348.8		21.7		72.9		101.25		
1962 January-June	357.5	725.2 (+3.7)	21.5	63.1 (+17.5)	70.3	65.1 (—12.5)	99.53	98.77 (—1.7)	8.7
1962 July-December	367.7		41.6		62.4		97.80		
1963 January-June	359.1	730.8 (+.8)	42.6	93.3 (+47.9)	59.3	59.8 (—8.1)	96.68	96.48 (—2.2)	12.8
1963 July-December	371.7		50.7		60.2		(96.28)		
1964 January-June	369.7	754.5 (+3.2)	97.6	197.9 (+112.1)	61.2	62.7 (+4.9)	94.82	95.32 (—1.2)	26.2
1964 July-December	384.8		100.3		64.2		95.83		
1965 January-June	374.8		96.0 (—4.0)		72.2		97.25	97.25 (+2.0)	25.6

Note: Figures within brackets are percentage changes relative to previous period.

Source: CSO *Statistical Bulletins*.

sufficient incentive. Otherwise there seems to be no reason why exports were not expanded at lower prices, while the domestic market was not a strong competitor, as evidenced by domestic prices. Thus, with the bonus raised to 30 per cent there was a good response. But the supply would definitely allow, and the foreign market would surely accept, at favourable prices, a larger quantity of exports. A low bonus in the first half of the year and a low premium in the second half seem to have had depressing effects on exports.

In 1963, exports rose by 48 per cent (30 million yards), with export price falling by 8 per cent. Foreign demand in this year also appears to have been strong enough to allow further expansion of exports at acceptable prices. But output increased by less than 1 per cent, and the failure of output to increase prevented a further increase in exports, while a weak domestic market was conducive to such an increase. Why did output fail to increase? Mill capacity was surely not the barrier as both the number of looms and the number of spindles increased in that year. The reasons, again, seem to have been /) limited raw cotton (as the export of raw cotton jumped by 131 per cent in 1962/63), and *ii)* speculative withholding (by yarn holders) of yarn from the production of cloth.

In 1964, output rose by 4 per cent (24 million yards) and exports jumped by 112 per cent (105 million yards), while the export price rose by 5 per cent. The domestic market was very weak in that year, as in the face of 80 million yards reduction in the supply to the domestic market from the current output, the domestic prices declined by more than 1 per cent. The foreign market, however, was obviously very strong. Therefore, 1964's excellent export performance was largely due to the strong foreign demand.

During January-June 1965, exports were 96 million yards and the export price was 12.5 per cent higher than that prevailing during the previous six months. Only a 4-per-cent reduction in exports in the face of 12.5-per-cent jump in the export price seems to indicate that the foreign demand was quite strong. In the domestic market, on the other hand, domestic prices rose by only 2 pet cent in the face of a 2-per-cent reduction in quantity taken from the current output. We can argue that the excellent export performance was possible because of strong foreign demand in the face of relatively weaker domestic market.

If we look at the six-monthly export figures, we shall see that both exports and export prices had been rising from January-June 1963 up to July-December 1964; and then in January-June 1965, exports declined by only 64 per cent with the export price shooting up by 12.5 per cent. The conclusion that emerges is that the foreign demand for Pakistani cotton cloth has been rising for the past two and a half years and larger exports probably would have been attained if, in keeping with the idea behind the bonus scheme, expansion of exports was sought at lower prices. It is true that production did not keep pace with the

increase in exports, but supply does not seem to have constituted much of a barrier, as the domestic market was weak, and so an easy shift of output from the domestic market was possible. Speculation, expectations, and a falling premium, are probably the factors which prevented any further increase in exports.

3) Quantification of Exports

We shall now make an attempt to quantify the export promotion of yarn and cloth due to the bonus scheme. It is, strictly speaking, impossible to do so, as what the situation would have been in the absence of the bonus scheme is not known, and the behaviour of the export series in both cases is so irregular as to make it impossible to use a simple statistical method for the estimation of export performances in the absence of the scheme. However, we make an estimate below on the basis of some rather arbitrary assumptions, as has been done in[1,p. 43).

We shall make the same assumptions as have been done in [1, p. 43] up to 1961 for both yarn and cloth. Thus, in the case of cotton cloth, we shall assume that exports in 1959 would have been the same as in 1957 and that they would have increased by a mere 2 per cent annually up to 1961, and that the export price would have been Re. 0.73 per yard throughout. We shall also assume a 2-per-cent increase in exports and an export price of Re. 0.73 per yard in 1962. In view of the strong foreign demand in the face of a weak domestic demand prevailing during 1963 through June 1965, we shall assume a 50-per-cent increase in exports in 1963 over the small export of 1962 and, then, a 50 per cent increase in 1964 as well as a 50-per-cent increase in January-June 1965 over half of 1964's exports. For these years we shall, however, continue to make the same assumption about the export price, *i.e.,* Re. 0.73 per yard. The results are shown in Table X.

The estimate of foreign-exchange "gain" from cotton cloth exports during January 1959 to June 1965 due to the bonus scheme is, on the assumptions made, Rs. 335.6 million.

In the case of cotton yarn, we shall also assume that exports would have remained at the 1959 level (roughly 40 million pounds) from 1959 through 1961 and that the export price would have been Rs. 1,82 per pound throughout. The developments after 1961 are, as we have seen, very complicated, and we do not know what assumptions about exports and the export price would be reasonable. Under the circumstances, we think we can do no better than to assume that exports would have been maintained at 40 million pounds in 1962,1963, and 1964, and 20 million pounds in January-June 1965 and that the export price would have remained Rs. 1.82 per pound throughout this period also. The results are shown in Table XI.

TABLE X

CONTRIBUTION OF THE BONUS SCHEME TO COTTON-CLOTH EXPORT, 1959-1965 (January-lone)

(quantity in million yards and value in million rupees)

Year	Actual export		Presumed export		Export attirbutable to the bonus scheme	
	Qty.	Value	Value	Qty.	Qty.	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1959	42. t	25.5	10.2	7.5	31.9	18.0
1960	75.5	53.2	10.4	7.6	65.t	45.6
1961	53.7	40.0	10.6	7.8	43.1	32.2
1962	63.1	41.1	10.8	7.9	52.3	33.2
1963	93.3	55.8	16.2	11.8	77.1	44.0
1964	197.9	124.4	24.3	17.7	173.6	106.7
1965 (January-June)	96.0	69.2	18.3	13.3	77.7	55.9
					520.8	335.6

TABLE XI

CONTRIBUTION OF THE BONUS SCHEME TO COTTON-YARN CLOTH EXPORT, 1959-1965 (January-June)

(quantity in million pounds and value in million rupees)

Year	Actual export		Presumed export		Export attributable t the bonus scheme	
	Qty.	Value	Value	Qty.	Qty-	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1959	82.5	122.9	40.0	72.8	42.5	50.!
1960	89.5	136.7	40.0	72.8	49.5	63.9
1961	15.3	28.0	40.0	72.8	24.7	44.8
1962	5.1	10.4	40.0	72.8	34.9	62.4
1963	16.5	31.9	40.0	72.8	23.5	40.9
1964	89.9	150.!	40.0	72.8	49.9	77.3
1965 (January-June)	36.8	71.8	20.0	36.4	16.8	35.4
					75.6	*78.6*

The estimate of foreign-exchange "gain" from cotton-yarn exports during January 1959 to June 1965, due to the scheme is, on the assumptions made, Rs. 78.6 million.

One point that needs emphasis is that the assumptions on the basis of which the effects of the bonus scheme on cotton cloth and cotton yarn have been quantified are surely arbitrary and one can question them. But we believe that by changing the assumptions one can change the magnitude of the result only, but cannot change the direction; and so the conclusion, in general, will remain valid. Another point that calls for explanation is the apparently negative effect of the bonus scheme on cotton-yarn exports. It has been emphasized that the supply of yarn was not the bottleneck. The reasons for the negative effects on yarn exports seem to have been uncertainties in regard to the rate of bonus and the premium which led to speculative restriction of exports. In our view, if the scheme had never been put into effect, speculation and expectation would not have run so high and cotton-yarn exports would have been maintained in or about the manner we have assumed above.

4) Cotton Waste

As mentioned in [1, p. 44], there was an upward trend in the export of cotton waste before the bonus scheme came into effect. It seems likely that its export would have continued to grow normally without the scheme. It is clear from the data that there was an acceleration of the normal growth after 1959, and that this acceleration was probably due to the scheme. A detailed discussion of the development in cotton-waste export is not necessary. The story is clearly told in Table XII.

For the calculation of the effects of the scheme on cotton waste exports, we shall make the following rather arbifrary assumptions. We assume that the export in the absence of the scheme would have been 196.0 thousand cwt., in 1958/598 and would rise by a mere 5 per cent in the following year and thereafter, in view of the stronger foreign demand, as evidenced by increased exports in the face of high export prices, by 10 per cent annually'. As regards the price, instead of assuming a constant price for every year as done in [1, p. 44], it seems more reasonable to assume that export prices would have been the same as those actually prevailed, and we shall do the latter. The data and estimates are shown in Table XII.

"Breakdown of quantity exported in 1958/59:

July-December	**1958**	**96.0 thousand cwt.**
January-June	**1959**	**109.7 thousand cwt.**

We have assumed that if the bonus scheme had not been operative, the export in January-June 1959 would have been 100.0 thousand cwt.

fin 1963/64, the increase in export took place at a substantially reduced price but the increase is an indication of a strong foreign demand.

TABLE XII

EFFECT OF BONUS SCHEME ON COTTON-WASTE EXPORTS
1959-1965 (January-June)

(quantity in thousand cwt., and value in million rupees)

Year	Actual exports			Presumed exports		Bonus-induced exports	
	Qty.	*value*	average value of export	*qty.*	*value*	*qty.*	*value*
0)	(2)	(3)	(4)	(5)	(6)	C0	(8)
1958/59	**205.7**	**10.0**	**48.6**	**196.0**	**9.5**	**9.7**	**.5**
1959/60	**373.5**	**17.1**	**45.8**	**205.8**	**9.4**	**167.7**	**7.7**
1960/61	**286.0**	**15.0**	**52.4**	**226.4**	**11.9**	**59.6**	**3.3**
1961/62	**377.0**	**24.2**	**64.2**	**248.9**	**16.0**	**128.1**	**8.2**
1962/63	**460.4**	**28.3**	**61.4**	**273.8**	**16.8**	**186.6**	**11.5**
1963/64	**499.2**	**24.4**	**48.9**	**301.2**	**14.7**	**198.0**	**9.7**
1964/65	**460.6**	**28.3**	**61.4**	**331.3**	**20.3**	**129.3**	8.0
							48.9

The estimated gain of foreign exchange from cotton-waste exports due to the bonus scheme is, on the assumptions made, Rs. 489 million during the period under review.

5) *Earnings of Raw Cotton Vs. Cotton Yarn*

In this section, we refer to the question: would not foreign-exchange earnings have been greater if raw cotton had been exported rather than cotton yarn. We have seen that only in 1959, 1960, 1964, and 1965 (January-June) could the bonus scheme have caused the export of yarn to rise above what it would have been otherwise. Hence, we shall take only these years into account.

Estimates have been shown in Table XIII. We have found that in each of the four years, yarn was a better foreign-exchange earner than raw cotton. The total foreign-exchange "gain" due to yarn export rather than raw cotton during the four years under consideration has been found to be Rs. 52.2 million.

The export price of raw cotton, which we have used for computations, however, needs clarification. Mallon [4] assumes an export price of raw cotton equal to its domestic price plus export duty. We consider his assumption unrealistic, as it does not reflect the foreign demand. We have taken the export price of raw cotton in each year as being equal to the average value of the export of raw cotton in that year. Furthermore, given the foreign demand for raw

TABLE XIII

NET GAIN DUE TO EXPORT OF YARN RATHER THAN RAW COTTON

(quantity in thousand pounds and value in thousand rupees)

Year	Export of cotton yarn	Foreign exchange earned	Depreciation and other foreign-exchange costs[a]	Foreign exchange net of Col. (4) Col. (3)—Col.(4)	Raw cotton used to produce yarn exported[b]	Export price of raw cotton[c]	Foreign exchange that could be earned by exporting raw cotton Col. (6) × Col. (7)	Net foreign-exchange gain due to yarn export Col. (5)—Col.(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959	82,528	122,882	13,204	109,678	103,160	1.01	104,192	5,486
1960	89,484	136,733	14,317	122,416	111,355	1.08	120,803	1,613
1964	89,921	150,073	14,387	135,686	112,401	.93	104,533	31,153
1965 (Jan.-June)	36,772	71,774	5,883	65,891	45,965	1.13	51,940	13,951
								52,203

Source: Table VIII and assumptions stated in the text and notes.

[a]Depreciation and other foreign-exchange costs have been assumed to be Re. 0.16 per lb. of yarn produced. This is what has been assumed by Mallon [4].

[b]It has been assumed that 1 lb. of yarn=1.25 lbs. of raw cotton. This is also Mallon's assumption [4]. Bruton and Bose [1] have assumed 1 lb. of yarn=1.20 lbs. of raw cotton. We accept Mallon's assumption.

[c]The export prices are those that prevailed in the respective years, and explained in the text.

cotton prevailing in the years under consideration, export prices would probably have been affected adversely if additional stocks were to be exported. A modification of the export price to this effect would show that yarn was a still better foreign-exchange earner. If the foreign-exchange earnings of cotton waste are taken into consideration, "gain" from yarn exports will be still larger. Furthermore, one may question the wisdom of thinking that raw cotton would be a better foreign-exchange earner than cotton yarn by asking if all the raw cotton used in the production of yarn for export would or could be exported.

C. Conclusions

It seems in order to state again that data used are of questionable accuracy and that the estimates have been made on rather arbitrary assumptions. Heavy reliance on the estimates as such is not warranted. However, we believe that reasonable alternative assumptions would not affect the results significantly. The conclusions will, therefore, in general, remain the same. The following conclusions have emerged from our analysis.

i) We have estimated that between Rs. 118.2 million and Rs. 95.5 million in foreign exchange were "lost" during 1959 through June 1965 due to the reduction in the export of raw cotton, caused by the bonus scheme. Also, we have estimated that during the same period the "gain" in foreign exchange from the export of cotton manufactures due to the bonus scheme amounts to Rs. (335.64-78.6 -f- 48.9) *i.e.,* Rs. 463.1 million. Thus, the "gain" in foreign exchange from the industry as a whole during the period is between Rs. 344.9 million and Rs. 367.6 million.

ii) The Bruton and Bose conclusion, that the scheme was less effective in the case of cotton industry than for jute industry in terms of the impact on foreign-exchange earnings, is still an important one. The reasons for this seem to be:

a) unlike the case with raw jute, more often than not supply of raw cotton appeared to be an important constraint;

h) while the bonuses on jute products were not changed at all, the bonuses on cotton products were being changed frequently;

c) with the changing bonus rates, the impact of the fluctuating premium was much stronger in the case of cotton than for jute products;

d) expectations and speculative motives also appeared to be stronger for cotton products; and

e) the behaviour of the domestic market seems to be more erratic for cotton products.

iii) Expectations and speculations seem to have sprung mostly from the fact that with bonus allowed on two stages of production—yarn and cloth — frequent changes were being made on the rates of bonus.

iv) We have concluded that yarn was always a better foreign-exchange earner than raw cotton.

CONCLUDING REMARKS

The bonus scheme, on the face of the evidence presented, has stimulated exports of both jute and cotton products and increased net foreign-exchange earnings. However, our estimates of the foreign-exchange "gain" are "gross" in the sense that we have not taken account of the import content of the manufactured items. The foreign-exchange component of the cost of production of jute and cotton products is relatively unimportant. Therefore, we believe that even if this is taken into account, the conclusion we have reached that the scheme was responsible for significant increases in the foreign-exchange earnings, will remain valid. An attempt at finding the "net" foreign-exchange "gain" has been made by Soligo and Stern in another study [6].

The scheme appears to have functioned differently over time. The failure of the scheme to work more smoothly over the years may be attributed to the inflexibility and unresponsiveness of the economy. Some flexibility in the scheme itself and provision of additional policies (such as taxes, subsidies, *etc.)* to exploit changing conditions are believed to be necessary conditions for achieving better results. We believe that, as opinions differ on various aspects of the policy measures involved in the scheme and because of the vital nature of the policy measures in affecting Pakistan's balance-of-payments position, the research and discussion in this area should continue.

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Commodity Exports, Net Exchange Earnings and Investment Criteria

Nurul Islam

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Commodity Exports, Net Exchange Earnings and Investment Criteria

Nurul Islam

Pakistan has experienced in the last decade a significant rate of growth of exports, especially of the manufactured exports. The manufactured exports have grown at an annual compound rate of 15 per cent during the period 1960-67. This significant rate of growth of exports has been associated with a large number of export-promotion measures which have ranged from a wide variety of fiscal concessions to such export-incentive schemes as the export bonus and export performance licensing as well as the fixation of compulsory export quotas for the individual manufactured exports. The question has been raised from time to time as to the efficacy of the export-promotion measures in terms of the *net* foreign-exchange earnings, defined as the actual increase in export earnings from a unit of expoFriSInui the direct and indirect requirements of imports necessary for the production of the unit of export. Since one of the important criteria for the determination of the investment priorities in the field of industry in Pakistan has been the foreign-exchange saving or earning capacity of a particular industrial project [9, p. 51], it is important to quantify the contributions to the net foreign-exchange earnings made by the exports of the different manufactured goods'. Moreover, it is possible to judge how the existing structure of the export incentives is related to the net exchange-earning capacity of the different industries.

i However, it is not suggested, as discussed later on, that the maximization of net foreign-exchange earnings should be the goal of economic policy.

The first systematic attempt to estimate the net foreign-exchange earnings of the individual manufacturing industries was made by Messrs, Soligo and Stern in their pioneering article [9], This article, however, questions the assumptions underlying their method of estimating the net foreign-exchange earnings; it presents an alternative set of estimates of the *net* exchange earnings on the basis of the *direct* evidence which is available on the export prices or the *gross* foreign-exchange earnings of the manufactured exports. The estimates of the net earnings of the broad industrial groups often conceal important differences within the groups; therefore, supplementary evidence on the intraindustry differences in the net earnings is presented for a few selected industries for which detailed data are available. Furthermore, the net exchange earnings are sought to be compared with the relative domestic costs, *i.e.,* mainly capital costs, as well as with the comparative efficiency, as measured by the degree of effective protection, of the different industrial groups. At the end, the relationship between the net earnings of the different industries and their actual export performance, in terms of their recent rates of growth or their relative importance in the total manufactured exports of Pakistan, is examined, along with some tentative observations on the implications of the above findings for the present structure of the export-incentive measures.

Messrs. Soligo and Stern adopt an indirect method for the measurement of gross foreign-exchange earnings. They measure the net foreign-exchange earnings from export of a unit of final demand of a commodity, which is worth D rupees in domestic prices, in terms of (E—M) where E is the *f.o.b.* export price of the same unit and M is the total direct and indirect import requirement. In the absence of direct evidence on E, they derive the estimates of E in the following way, E is defined as (D—Td)/(1+Pb) where Td is the indirect tax on the domestic sales of the unit which is exempted if the unit is sold abroad, P is the premium on the bonus voucher and b is the percentage of the export allowed as a bonus, Therefore, E is derived from the given data on D, Td, and Pb. They assume that the receipts per unit of sale are the same in both the domestic and export markets and the entire difference between the foreign and domestic prices is accounted for by the subsidy originating from the export bonus and the exemption of indirect taxes on output.

ON AN APPROPRIATE MEASURE OF GROSS FOREIGN-EXCHANGE EARNINGS

The derivation of *the f.o.b.* export price on the basis of the above method ignores the effect of the additional export-incentive schemes such as *a)* export-performance licensing, *b)* exemption from the indirect taxes 011 the domestic inputs, *c)* exemption from the indirect taxes on the imported inputs, and *d)* rebate on the income tax attributable to the exports, *etc.**. Even if the effect of these additional measures is taken into account, the difference between the *f.o.b.*

In an another study on effective export subsidy [2a], the author estimates that the total subsidy originating from the various measures comes to about 100-125 for some of the manufactured exports.

export price and the domestic price may, in many cases, be still more than is accounted for by the combined subsidy originating from all the export-promotion measures because of two important additional factors. First, price discrimination between the home and foreign markets is profitable and possible. The two markets are effectively separated because of quantitative restrictions on foreign trade. The manufacturer exporter faces a highly elastic demand in the export market and a relatively inelastic demand in the domestic market, which is not only protected from competition from without but also is characterized by monopolistic market imperfections within. The consequence of the price discrimination and the imperfections in the domestic market is that the domestic price is higher than the export price plus the export subsidy. The average receipts per unit of export, including subsidy, will be lower in the export market than the average receipts in the domestic market.

Secondly, the exporter may be willing to accept a lower profit on the foreign sales which is not compensated by a higher rate of profit in the domestic market; in other words, the exporter may not be maximizing profit. The sacrifice of the short-run profits may be worthwhile since a good export performance has become the hallmark of efficiency in the eyes of the government, which is aggressively committed to the policy of export promotion. There are diverse ways in which the general controls and regulations exercised by the government in the matter of the fiscal treatment and the licensing for the import of capital equipment and raw materials for the production in the highly profitable domestic market affect the profitability of the manufacturing enterprises. In the past three or four years, the Export Promotion Bureau has been in cooperation with the organizations of trade and industry, laying down specific export quotas for the different industries and for the individual enterprises within each industry, non-fulfilmen t of which is a sufficient ground for incurring the displeasure of the government or indeed a fall from the good grace of the government. Moreover, the direct evidence accumulated so far, and presented in the Appendix on the difference between the domestic and world price, confirms this hypothesis [6]. It is unlikely that an exporter will be able to sell at a price higher than suggested by the price spread between the domestic and world price. On the contrary, it is likely that in the critical years, when introducing a commodity for the first time in the export market, the exporter will charge a price somewhat lower than the ruling world price in order to offset the consumer's preference for the established brand names and historical trade connections. Thus, the maximum price at which the exporters will be able to sell abroad will be indicated by the "world" price for the respective commodity. The data on the world prices, referred to above, are in most cases based on the *c.i.f.* import price and the *f.o.b.* export price is usually less than the *c.i.f.* price, so that *the, f.o.b.* export price for the purpose of our present inquiry has been obtained by deflating the world price to the extent of 5 per cent, to allow for freight and insurance[1].

JThis seems to be the practice with the Pakistan Tariff Commission as well.

NET ESTIMATES OF NET FOREIGN-EXCHANGE EARNINGS

It is seen in the light of the above that Messrs. Soligo and Stern overestimate gross foreign-exchange earnings whenever the differential between the domestic and foreign price exceeds the amount of subsidy originating from the bonus scheme and the exemption of exports from the indirect taxes on output. The gross foreign-exchange earnings and, hence, the net foreign-exchange earnings have thus been recalculated; E has been defined as D/(1+p) where D is the value of one unit of final demand in domestic market prices, and p is the percentage excess of domestic market price over the world price multiplied by 1.05[1]. Two sets of price ratios have been used; they are based on two independent sources indicated earlier. Each set is based on an analysis of two independent samples of industries for each major industry group. Each ratio refers to a different composition of the major industry groups and it is an average of the price ratios of the constituent industries in each group[1]. Moreover, a number of major industry groups covered in one study are not covered in the other. Thus, the use of the two independent estimates of price ratios provides a larger sample of estimates of foreign-exchange earnings than would otherwise be available. The direct and indirect import requirements per unit of final demand for each industry are the same as those used by Messrs. Soligo and Stern. However, some of the industries covered by them have to be omitted from the present study since the data on world prices for them are not available, as shown in the Appendix. Two sets of revised estimates of the net foreign-exchange earnings are given in the Appendix. Both the sets of the revised estimates of the net foreign-exchange earnings are less, in almost all the cases, than the Soligo-Stern estimates of the net foreign-exchange earnings. Secondly, the higher the price differential, *i.e.,* the differential between world price and domestic price, the lower is the net foreign-exchange earnings. In other words, there is no compensating variation

"It is important to remember that the domestic prices used in this context are the market prices and, hence, include the indirect taxes on output and p, which is the excess of the domestic market price over world price, accordingly includes the indirect taxes. Therefore, the domestic price deflated by (1 +p) in the above yields the estimates of export price excluding indirect taxes. This procedure of estimating the export price and the gross exchange-earnings, therefore, includes the effects of the exemption of the exports from the domestic indirect taxes.

The price ratios ace not in any sence exhaustive; they do not represent the averages of *all* the possible products of each industry since data are seldom available in such a great detail. In many cases, the prices relating to a few products are used to represent the entire industry. This suggests the need for the collection of comprehensive data on the import and export prices which are of critical importance for vital decisions in the field of investment programming, import substitution and export promotion. In some cases, the estimate of the price differential is close to what is suggested by the magnitude of the export subsidy as in the case of the cotton-textile industry —an industry which has a relatively more competitive structure and has enjoyed over the years a considerable expansion of capacity and output with a fall in relative profits and prices. The high-price differential in the case of the apparel industry, in spite of a low-price differential of one of its inputs, i.e., cotton textile, can partly be explained by the relative lack of competition in this industry and by the fact that some other inputs in the apparel industry, such as the silk and artificial silk, have the domestic prices which are four to five times higher than the world price. For possible explanations of inertindustry variations in the price differentials, *see* f2 *;* 31.

in the import requirements for commodity with a higher price differential so that the lower gross earnings are not offset by the lower import requirements. The highest foreign-exchange earning in the first set of estimates (Soligo-Stern) is 0.96 rupee per unit of export, worth one rupee in domestic prices, of the chemical fertilizer which also yields the highest earning in the second set; the lowest earnings are 0.25 rupee for perfumes, soaps, and cosmetics in the first set and in the second set they are 0.03 rupee provided by the plastic products. The most striking differences in the magnitude of the net foreign-exchange earnings between different sets of estimates are the following;

TABLE I

EXCHANGE EARNINGS PER UNIT OF EXPORT WORTH ONE RUPEE IN DOMESTIC PRICES.

Industry	Soligo-Stern	Revised estimates	
	I	II	III
Sugar	0.69	0.21	0.20
Silk & artificial silk	0.49	0.04(--)	0.006
Transport equipment	0.48	0.06	0.11
Plastic products	0.42	0.03	0.26
Rubber products	0.45	0.16	0.12

In the first set, eighteen out of twenty-eight industries have about 0.50 as the foreign-exchange earnings per unit of export worth one rupee in domestic prices, whereas in the second set only about nine industries have the net foreign-exchange earnings of the same magnitude. Moreover, in the first set there is no industry with less than 0,25 as net foreign-exchange earnings, whereas in the second set there are nine industries with less than 0.25 as net foreign-exchange earnings and four industries with less than 0.10 as net foreign-exchange earnings.

As between the second and third sets of estimates, the differences in the net foreign-exchange earnings of the same industry group are due to the differences in the composition of the industry group, as has been explained earlier. In most of the cases, the net earnings are lower in the third than in the second set of estimates, excepting in the case of paper and board, transport equipment, plastic products, cosmetics, soaps and perfumes where the third set of estimates is higher than in the second set. In one case, *i.e.,* silk and artificial silk, the third set of estimates turns negative.

It may be interesting to estimate the average foreign-exchange earnings for three broad commodity classifications of industrial groups, *i.e.,* consumer goods,

intermediate goods and capital goods. The estimates which follow are based on the second set of estimates; since they cover a larger number of industry groups than the third set of estimates, they are expected to be more representative, if such a classification is to be made. The average (simple and weighted) net foreign-exchange earnings for the three groups of commodit ies are given below[6].

TABLE II

AVERAGE NET FOREIGN-EXCHANGE EARNINGS

Consumer goods	Simple	Weighted
A. Consumer goods :	0.3608	
1) excluding ootton textiles and printing and publishing	0.3123	0.4667
2) excluding printing and publishing	0.3340	0.5312
B. Intermediate goods:	0.4331	0.5938
1) excluding jute textiles	0.4202	0.3800
C. Capital goods	0,2492	0.2180

The simple average net earnings are the highest for the intermediate goods; this is also true if the earnings are estimated exclusively of the cotton and jute textiles, which were the most important components of the consumer goods and intermediate goods, respectively. This is in line with the findings of Messrs, Soligo and Stern. The weighted net earnings for the three groups, including jute and cotton textiles in their respective groups, keep their relative position unchanged. The weighted average earnings of consumer and intermediate goods are higher than the simple average, because the jute and cotton textiles have higher net export earnings than the rest of their respective groups and have also very heavy weightage. The weighted average for capital goods is lower than the simple average. But once the jute and cotton textiles are excluded from their respective groups, the weighted average earnings are the highest for consumer goods; those for intermediate goods are less than that for consumer goods but

«The weights are the relative importance of the exports of the different industry groups in the total manufactured exports of Pakistan during the period *1961-64.* The calculation of the direct and indirect import requirements and the price differentials between foreign and domestic price relate to 1963/64. Sugar, tea, sports goods, printing and publishing, pens and pencils, footwear, cotton textiles, silk and artificial silk, matches, wearing apparel, plastic goods, cosmetics, and soaps and perfumes constitute the category of consumer goods whereas chemical fertilizers, jute textiles, thread and threadball, tanning and leather finishing, articles of paper and board, chemicals and pharmaceuticals, manufactures of paper and board, coal and petroleum products, rubber and rubber products, and paints and varnishes are intermediate goods; capital goods include non-metallic minerals, transport equipment, noneleotrical machinery, metal goods, basic metals, and electrical machinery and appliances. Printing and publishing is omitted from the weighted average of consumer goods, because data on their exports are available.

more than those of capital goods. The conclusion reached by Messrs. Soligo and Stern that the capital-goods industries rank lowest in terms of foreign-exchange earnings remains unaltered. But as between the intermediate goods and consumer goods, the consumer goods rank higher than the intermediate goods in terms of weighted average earnings. But then number of industries in both groups are based on the exportable domestic agricultural raw materials, the domestic consumption of which in lieu of export involves a loss of foreign exchange which is to be set against their gross earnings as shown below.

TABLE III

CONSUMPTION OF DOMESTIC MATERIALS PER UNIT OF FINAL DEMAND

Industry	Direct consumption	Direct and indirect consumption	Domestic materials
Cotton textiles	0.2882	0.3011	Cotton
Jute textiles	0.3407	0.3452	Jute
Woollen textiles	0.1778	0.1904	Wool*
Tanning & finishing of leather	0.3054	0.3290	Hides and skins*

*** Assuming that the consumption of inputs from the sector "all other agriculture" in the input-output table in the case of woollen textiles is wool and in the case of tanning, the hides and skins. The input-output table is the one prepared by Messrs Tims-Stern for the year 1963/64, and which has been used for the estimation of direct and indirect import requirements. The inverse of the table was available from Mr. J. J. Stern of the Harvard Advisory Service, Harvard University, Cambridge, U.S.A.**

The net foreign-exchange earnings of the above sectors, exclusive of the direct and indirect consumption of the exportable domestic materials, are given below'.

'Column (A) of Table IV excludes only direct consumption and Column (B) excludes both direct and indirect consumption. For wool, the estimate of gross earnings was taken from Messrs. Soligo and Stem which is 0.6667 since no independent price ratio was available.

The industries which are heavy users of agricultural raw materials, which are concurrently exported, have been considered in the above estimates. These four industries have resulted in an increasing domestic absorption of the most important agricultural raw materials exports of Pakistan, *i.e.,* cotton, jute, wool, and hides and skins. The exclusion of the industries other than those based on the domestic utilization of the exportable agricultural raw materials may be justified on the grounds that the focus of the present paper is on the net foreign-exchange earnings of the manufactured exports so that the decline in the foreign-exchange earnings of the non-manufacturing sector only are offset against the increase in the foreign-exchange earnings of the manufacturing sector.

The interindustrial deliveries within the manufacturing sector itself are not considered. For example, the exchange earnings of the apparel industry are not exclusive of the inputs from the textile industry, which might have been exported. The logical extension of this argument is that all the intermediate deliveries from the other sectors into any industry are potentially exportable at a price so that the net foreign-exchange earnings are equal to only the value added in the particular industry in question, measured in international prices, derived by deducting the intermediate inputs in international prices from the value of the gross output in international prices.

TABLE IV

NET FOREIGN-EXCHANGE EARNINGS

	(A)	(B)
Jute textiles	**0.2677**	**0.2632**
Cotton textiles	**0,2628**	**0.2499**
Woollen textiles	**0.2959**	**0.2833**
Tanning and finishing of leather	**0.2014**	**0.1778**

Note; **see footnote 7.**

The averages of the two industry groups, *i.e.,* the consumer and intermediate goods, decline when the net foreign-exchange earnings are estimated, exclusive of the loss of foreign exchange due to the domestic consumption of exportable raw materials. Though the consumer goods still retain the leading position as the net foreign-exchange earner, the difference between the two is narrowed.

TABLE V

NET FOREIGN-EXCHANGE EARNINGS

	Simple	Weighted
Consumer goods (excluding printing and publishing)	**0.3082**	**0.3145**
Intermediate goods	**0.3680**	**0.2709**

FURTHER EVIDENCE ON NET FOREIGN-EXCHANGE EARNINGS: INTRAINDUSTRY DIFFERENCES

While the estimates of the average foreign-exchange earnings for such broad aggregative commodity classifications such as consumer goods, intermediate goods and capital goods, may be useful for certain purposes, it is pertinent to emphasize the important intraindustry differences which exist within each of these broad classifications. Though most of the above estimates for the consumer-goods industries, for example, credit them with a higher average net foreign-exchange earning, it is within this broad group that one finds the industries such as silk textiles, weaving apparel, and plastics which have the lowest net foreign-exchange earnings. While partly the differences between the second and third sets of estimates are due to the fact that in many cases the price differentials relate to the different years, the more important reason is the differences in terms of the net foreign-exchange earnings between the individual industries

which constitute each of the major commodity groups®. Generalizations based on such broad classifications are apt to be misleading. Moreover, within each industry group such as machinery, chemicals and basic metals, *etc.,* important differences exist between the individual industries. This underscores the need for a more detailed study of each of the industry groups in terms of their constituents, before any judgment is rendered as to their relative net foreign-exchange earnings. That it is advisable to pursue the investigation in as great a detail as the data and the resources for analysis permit is evidenced from the following analysis of the net foreign-exchange earnings of a number of narrowly defined commodities derived from an analysis of the *Reports* of the Pakistan Tariff Commission.

The estimates of net foreign-exchange earnings in the industries shown in Table VI do not take into account the indirect import requirements'. The gross foreign-exchange earnings per unit of export for each industry have been estimated by the Tariff Commission on the basis of the actual selling price in the export market assumed to be equal to the *c.i.f.* price and not on the basis of a hypothetical export price which is gssurned to be less than the domestic price by the amount of export subsidy. To the extent the *f.o.b.* export price is less than the *c.i.f.* price, the estimate of the gross earnings and, therefore, that of the net earnings, suffers from an upward bias. The following Table VI reveals the wide differences between the individual industries or commodities within each industry group, such as metal products, chemicals, and basic metals, *etc.,* in terms of the net foreign-exchange earnings. Within the group of chemicals, for example, the net foreign-exchange earning per unit of export, worth one rupee in domestic rupees, varies from 0.87 to 0.18; in the pharmaceuticals industry, it ranges from 0.96 to 0.03 but in the case of seven products, the net earning is negative. Similarly, in the case of the electrical machinery, it ranges from 0.51 to 0.02 while in the case of metal products, it ranges from 0.83 to 0.10.

8Consumer goods, intermediate goods, and capital goods.

s>Moreover, the direct and indirect import requirements for forty-three industry groups, analysed in the Appendix, are derived from an input-output table (54 x 54), the direct import requirements in the case of industries given in Table VI are derived from the *Reports* of the Tariff Commission on the individual industries.

TABLE VI

Industry group	Range of net foreign-exchange earning for a selected sample in each group	Average of the industry group
Basic metals		
(3 cases)	**0,74-0,67**	**0.31**
Chemicals and pharmaceuticals		
Chemicals		
(7 cases)	**0.87-0.18**	
Pharmaceuticals		
(24 cases)	**0.96-0.03**	
Pharmaceuticals		
(7 cases)	**(—)0.03-(—)0.21**	
Metal products		
(10 cases)	**0.83-0.10**	**0.29**
Nonelectrical machinery		
(1 case)	**0.63**	**0.43**
Electrical machinery		
(6 cases)	**0.51-0.02**	**0.35**
Non-metallic minerals		
(3 cases)	**0.47-0.18**	**0.45**
Transport equipment		
(1 case)	**0.31**	0.16
Rubber and rubber products		
(2 cases)	**0.54-0.52**	0.20

INVESTMENT CRITERIA AND EXPORT EARNINGS

The contribution to the improvement of balance of payments is one of the criteria in use in Pakistan affecting the selection of industrial investment projects. If the contribution of an industry to an improvement in the balauce of payments is measured in terms of the gross foreign-exchange earning, it is not only thai its contribution is overestimated but also its contribution relative to the other industries is liable to be misjudged since the relative ranking of the industries in terms of the net earnings is different from that in terms of the gross earnings, as seen in the Appendix. It is in addition relevant to enquire whether the criterion

of net foreign-exchange earning is consistent with the criterion conceived in terms of the most economical use of the other scarce factors such as capital or in terms of the overall efficiency of the manufacturing industries in Pakistan. Reliable and meaningful data on the capital-output ratios of the Pakistani industries are difficult to come by. However, an attempt is made to use the capital-output ratios estimated by Messrs. Khan and MacEwan [5] in order to test whether the ranking of industries by the capital-output ratios is significantly different from the ranking by the net foreign-exchange earnings. The capital-output ratios are not available for all the industries for which the net foreign-exchange earnings are available. Hence, the comparison was restricted to a smaller sample for which data on both the variables are available, as shown in the Appendix. A second set of data is available on capital-output ratios in an IBRD study [1] which has been used alternatively to test the similarity or otherwise of ranking of industries by the two criteria of the net foreign-exchange earnings and the capital-output ratio.

There does not seem to by any significant correlation between the ranking of industries by any of the two sets of the capital-output ratios and by foreign-exchange earnings. The rank coefficient is 0.348 on the basis of the first set of capital coefficients and —0.073 on the basis of the second set of capital coefficients. They are not, however, statistically significant at 5-per-cent level. Thus, an industry which yields large net foreign-exchange earnings may involve either low or high capital requirements. In the former case, the industry meets both the criterion whereas in the latter case the advantage of high foreign-exchange earnings is offset by a greater use of another scarce factor, *i.e.,* capital. There are, on the one hand, such industries as cotton, jute textiles, and chemical fertilizers, which have high foreign-exchange earnings and high capital-output ratios, and, on the other, there are such industries as pharmaceuticals and miscellaneous chemicals, basic metals and metal goods which have low foreign-exchange earnings and low capital-output ratios. There are, of course, industries like sugar, other textiles (silk and artificial silk), transport equipment, rubber and rubber products, which have high capital-output ratios and low net foreign-exchange earnings. The above conclusion about basic metals and chemical fertilizer would not be valid if the second set of capital-output ratios is used.

However, if the competitive efficiency of an industry is judged by the degree of effective rate of protection, then the net foreign-exchange saving is negatively correlated with the degree of effective protection. In other words, an industry which is internationally more competitive earns more net foreign-exchange per unit of exports. The lower the degree of effective protection, the lower usually is the excess of t he domestic price over the world price and, hence, the higher is the magnitude of gross foreign-exchange earnings. The negative rank correlation coefficient between the degree of effective protection and net foreign-exchange earnings is —0.444 and it is significant at 5-per-cent level. Thus, the choice of

industries by the criterion of net foreign-exchange earnings would imply or involve the choice of industries with a lower degree of effective protection. However, it does not necessarily involve the choice of industries which involve a smaller use of domestic resources such as capital per unit of foreign-exchange earnings. In other words, the relevant question regarding the appropriate criterion for the selection of industries is whether an industry which earns per unit of export the highest amount of net foreign exchange and has at the same time the lowest effective degree of protection, also yields the highest returns in international prices to the scarce factors like capital. In other words, an industry may require a low degree of effective protection in the sense that its value added in domestic prices very nearly equals its value added in international prices but it may still fail to provide adequate returns to scarce factors, measured in international prices. This leads to the conclusion that the calculation of the rate of return on capital industry-wise has to be made in international prices, to decide whether the rate is adequate and then to make interindustry comparison in terms of rates of return. In this calculation, capital equipment, *etc.,* itself would also be valued in international prices [8].

NET EXCHANGE EARNING, EXPORT GROWTH AND EXPORT INCENTIVES

It may be interesting to enquire whether the export performance of the various industries is correlated with their ability to earn foreign exchange, defined as the net foreign-exchange earnings per unit of export. There is no significant correlation between the net foreign-exchange earnings of a manufactured export and its rate of growth over time or its relative ranking or importance among the manufactured exports of Pakistan, defined as the proportion of the total manufactured exports earned by the particular industry. The rank correlation coefficient between the net foreign-exchange earnings and the rate of growth of exports during the period 1960-67 is negative and is —0.287 but it is not significant at 5-per-cent level. The rank correlation coefficient between the net foreign-exchange earnings and the ratio of the particular export to the total manufactured exports of Pakistan during the period 1961-64 is 0.362 but it is not significant at 5-per-cent level, even though it is significant at 10-per-cent level. Thus, there is no evidence that the exports with a higher net foreign-exchange earnings per unit are growing faster or that they provide higher proportion of the total exports of Pakistan.

A suggestion has sometimes been made that the magnitude of export subsidy to the individual exports should be proportional to their net foreign-exchange earnings [7], While it is readily granted that the magnitude of export subsidy should *not* be proportional to the gross foreign-exchange earnings, the reverse is believed to be the appropriate policy insofar as net foreign-exchange earnings are concerned. In other words, the higher the net foreign-exchange earnings per unit of export, the higher should be the magnitude of subsidy.

Under this policy, it is suggested, the foreign-exchange earnings would be maximized. In the first place, there is an obvious and a simple limitation to this policy insofar as the average net foreign-exchange earnings are different from the marginal earnings. In the case of the export commodities with a very low elasticity of export demand, the marginal earnings would be considerably lower than the average so that an export commodity with a low average earning but with a high elasticity of export demand may contribute a larger foreign-exchange earnings at the margin than the former and, thus, deserves the same subsidy as the one with a higher average but a lower marginal earning. In Pakistan, the major distinction in the case of the manufactured exports is between the jute and cotton textiles, on the one hand, and the newer manufactures, on the other. The latter receives a larger bonus than the former, even though there are items within the second category of exports, some of which earn, on the average, higher and some other, which on the average, earn lower foreign-exchange earnings per unit of exports than the cotton and textile industries. There is a presumption that the price elasticity of export demand for cotton textiles, even though Pakistan supplies a small share of the world market, is low because of the quota restrictions on Pakistan's exports to her major importers under the International Textile Agreement. In the case of the jute textiles, Pakistan operates in an oligopolistic market dominated by India so that the possibility of a retaliatory action in response to a considerable price-cut by Pakistan is ever present. Thus, one may suggest that newer manufacturers which suffer neither from the limitation of quotas under an international agreement nor from the danger of oligopolistic market, face a competitive world market as they constitute a very small share of world trade iu the individual commodities. Thus, the newer manufacturers, even when their average earnings are lower than the jute and cotton textiles, justifiably receive a higher bonus with a view to accelerating the rate of expansion of the export earnings per unit of subsidy. The newer manufacturers with higher average earnings are justified in receiving a higher subsidy. But if the maximization of exports or net foreign-exchange earning is to be accepted as the objective, then one would not expect the same rate of bonus with a few exceptions, as it now prevails, for all the newer manufacturers who face a highly elastic export demand but between which there is a considerable difference in terms of the average export earnings, ranging from 0.90 to 0.02 per unit of export. The same rate of subsidy is justified if these wide differences in the average earnings, in fact, imply very similar or roughly equal marginal earnings. In order to justify such a presumption, the differences between their elasticities of demand would have to be much larger than appears plausible or realistic, especially since all of them presumably face a higher elastic demand at the ruling world price.

This brings us to the second limitation to the policy of fixing rates of export subsidy in proportion to the amount of net foreign-exchange earnings. The maximization of foreign-exchange earnings or exports is by itself not the objective

of economic policy. In a developing economy like Pakistan, the objective of economic policy, with reference to which the instruments of policy such as the export-promotion measures are used, is the increase in national income, subject to such restraints among other things as the expansion of employment, socially tolerable distribution of income and equilibrium in the balance of payments, including foreign capital flow. It is in respect of the last mentioned restraint that the net foreign-exchange earning assumes a critical importance. Foreign exchange is a necessary input in most income-generating activities as the latter require imported inputs; at the same time, the exporting activity generates foreign exchange and requires the inputs of the scarce domestic inputs such as capital, skill and natural resources. The relevant question under consideration is how to devise or orient the export-subsidy schemes in terms of an appropriate differentiation, if any, between the individual exports. The requirements of the scarce domestic resources differ as between the different exports so that the cost in terms of the domestic resources of the marginal net foreign-exchange earning differs between the different exports. The principle of the cost minimization for a given output suggests that the exports of which the marginal net exchange earning involves lower costs should expand faster. Moreover, as on the demand side, so also on the supply side, there are differences between the individual exports in terms of the elasticity of supply so that while the average domestic cost of an export may be lower than that of another, the marginal cost may be higher than or equal to that of the latter.

If MC, and MCB are the marginal domestic costs of exports A and B, and MRA and MRB are the net marginal foreign-exchange earnings per unit of exports, then MRA/MCR and MRB/MCB are respectively the marginal exchange earnings per unit of marginal domestic costs of A and B. If $(MRA/MCA) > (MRI, MC,)$, an additional unit of foreign exchange from the export of A costs less than that from export of B. So long as $(MRA/MCA).\ E < 1$ where E is the effective rate of exchange, including the export subsidy, there will be no export of A since the marginal cost exceeds the marginal revenue[10]. Under these circumstances, there will be no exports of B either; the effective exchange-rate which equates the domestic currency equivalent of MRB and MCB is higher than that which equalizes the domestic currency equivalent of MRa and MCA, It is possible to argue, however, that for a country like Pakistan which has a small share in the world trade of most commodities, both agricultural and manufactured, excepting in the case of raw jute, the elasticity of demand for most of her exports is likely to be high and is unlikely to be greatly different as between different commodities so that discrimination between them in terms of effective exchange-rate on the basis of differential demand elasticities is unlikely to result in economic gain and, in absence of detailed and reliable information regarding the elasticity of demand for the individual commodities, may in fact result in a

[10] E is the amount of local currency per unit of foreign currency.

random selection of effective exchange-rates for different commodities. Therefore, if one assumes high and roughly equal elasticities of demand for most commodities then discriminatory exchange-rates based on differential costs and elasticities of supply of different exports can be justified on the grounds that an exchange rate which would bring forth the supply of higher costs but more elastic exports would result in high rents being earned by the low cost but inelastic export sector. A low exchange rate for the latter sector which would mop up the excess rents without adversely affecting supply can then be introduced,. In terms of our previous example, as exports of A expand, MCA increases so that there is an increase in the effective rate required to enable its exports to take place. As this happens, at some points exports of B become profitable. If the exports of A are not adequate at the previous rate of exchange to meet the total foreign-exchange requirements of the economy, the exports of B take place as the effective exchange-rate increases. Thus, under a system of unified rate of exchange, A earns excess rents.

Whether in the situation outlined above, the effective exchange rate of A should be distinguished from that of B and be set at a lower level is a matter of value judgement regarding the appropriateness of the distribution of income between the two sectors, A and B; it also depends upon other macroeconomic implications, including the effects on savings in the context of economic growth, of the differential rents in the different sectors. The possibility of such a successful discrimination between the individual export commodities is partly limited by the lack of a detailed knowledge of the elasticities of supply of the individual export commodities. But in one instance there is a clear case for discrimination, *i.e.,* when the elasticity of foreign demand is less than one so that the marginal revenue is negative with the result that an expansion of export would involve a fall in the total foreign-exchange earnings of the commodity, or that its elasticity of demand is significantly lower than the rest so as to yield a discernible gain from discrimination. Thus, on the basis of static allocative criteria, the occasions when the departures from a unified exchange rate for exports are justified are not many.

On dynamic grounds one may argue that if some sectors generate higher rates of saving and thus contribute more to investment and growth than others, they should receive a higher effective exchange rate than others. A higher effective exchange rate which would enable higher profits to be earned in the "growth-promoting" sectors may, therefore, be justified as a second-best method. While the distinction often made between the agricultural and the manufacturing sectors on the basis of the latter's higher propensity to save and invest may or may not be appropriate, depending upon the particular circumstances of a country, an argument for discrimination between the individual manufacturing industries on this basis appears far-fetched. However, a strong case for discriminatory exchange-rates for the different exports can indeed be made out on

the basis of the infant industry argument, *i.e.,* the existence of differences in the degree of infancy between the different industries. The manufacturing industries in Pakistan are at different stages in the process of growing up into maturity. The "infancy" of an industry and its process of "learning by doing" is related not only to the manufacturing operations and selling in the domestic market but also to the field of the export marketing, which involves problems and costs different in kind and degree from that of the domestic marketing. The newer manufacturers are likely to face higher costs and greater obstacles in the presence of the established producers operating in the world trade and in the face of the consumers' preference for the brand-names with which the latter are already familiar. While a broad distinction between the old and newer manufacturing industries, as is made in Pakistan between the jute and cotton textiles, on the one hand, and the rest of the new manufacturers, on the other, seems defensible, any attempt at a detailed discrimination between the individual industries on the basis of "differential infancy" would require an amount of knowledge of the individual industries which is not easily available in practice; such discriminatory treatment is often liable to be based on other extraneous and apparently plausible but logically untenable arguments.

An illustration of this is the argument for the higher subsidies for the industries suffering from an excess capacity. This is based on the reasoning that since the fixed costs in the short run can be neglected because the already installed capacity which is unutilized involves no social costs, the marginal variable costs of expanding the exports of the industries suffering from an excess capacity are low compared with those with no excess capacity operating on the upward rising slope of the average cost curve. But then if the reasoning is correct, what is necessary for the individual industries is to follow the principle of the marginal cost pricing in the export market. If the firms with excess capacity maximize profits, they would produce and sell so long as marginal revenue exceeds marginal cost. While in the domestic market they would earn excess profits because of the monopolistic market structure, the export price may just cover marginal cost in the highly competitive export market under a unified exchange rate; the firms with excess capacity will sell more than those without excess capacity since their marginal costs are low and decline as output and sales expand. If the excess capacity is due to the shortage of imports, such as the imported raw materials and spare parts, the appropriate policy is an increase in the supply of the necessary imports at a uniform price which represents then social opportunity costs equally to all the firms or industries. In any case, there does not appear any justification for a discriminatory export subsidy in favour of the firms with excess capacity.

CONCLUDING REMARKS

At present, the major focus of the export-incentive schemes and the exchange-rate policy in Pakistan is on a rapid expansion of the manufactured exports. An

appropriate measure of their gross and net foreign-exchange earnings is of considerable significance in this context. The alternative estimates of the net foreign-exchange earnings of the individual manufactured exports, which are presented above on the basis of a direct and new evidence on their export prices and then-gross earnings, are less, in some cases substantially less, than the earlier estimates. They are further reduced if the loss of exports of the agricultural raw materials necessary for the production of the manufactured exports is taken into account. Furthermore, the relative ranking of the individual manufactured exports in terms of the gross exchange earnings is different from that in terms of net earnings. The net foreign-exchange earnings of the different industries are correlated neither with their capital costs per unit of output nor with such an overall index of efficiency as measured by the "effective rate of protection". A discriminatory promotion of the industries with large net foreign-exchange earnings may involve the encouragement of the inefficient industries or the industries with the higher capital costs unless sufficient care is taken to examine the costs of earning the foreign exchange in\terms of the scarce domestic resources. The manufactured exports with a higher net foreign-exchange earnings per unit of export do not necessarily enjoy higher rates of growth nor do they contribute a larger proportion of the aggregate foreign-exchange earnings from the manufactured exports, as judged by the recent experience.

The design of an appropriate export-incentive scheme or of an exchange-rate policy, which seeks to distinguish between the individual manufactured exports 011 the basis of their differential elasticity of supply and/or demand and 011 the basis of their differential "infancy", involves a difficult exercise, partly in view of the lack of adequate knowledge about the relevant variables and partly because these criteria for differentiation are not always rigorously defined and closely examined in each case. It is necessary that the considerations, if any, underlying the departures from a unified exchange rate for the exports within the manufacturing sector itself are clearly spelled out; the considerations of static allocative efficiency and the dynamic considerations of growth need be kept separate and be carefully identified in the particular cases of differentiation. In the absence of such an examination, the danger of an inefficient or more costly industry receiving a higher rate of export incentives, thus contributing to a mis-allocation of resources, cannot often be avoided. This article does not provide an exhaustive analysis of all the relevant factors in the particular circumstances of Pakistan; it offers a few observations on some of the often-discussed considerations for the multiple exchange rates for exports in Pakistan.

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Appendix

NET FOREIGN-EXCHANGE EARNINGS PER UNIT OF FINAL DEMAND

(Worth One Rupee in Domestic Prices)

Industry	(1) Soligo-Stern exchange earnings 1	(2) Price differential I	(3) Revised estimate II		(4) Price differential U	(5) Revised estimate III	
	Net		Gross	Nol		Gross	Net
Jute pressing	99.75						
Cotton ginning	97.07						
Chemical fertilizer	96,04 (1)	1.15 (23)	0.82816 (1)	0.7886 0)			
lea	89.25 (2)	1.39 (21)	0,68516 (3)	0.6740 (2)			
Rice milling	75.53						
Sugar	69.30 (3)	4.27 (2)	0,22304 (25)	0.2135 (21)	4.55	0.20931	0.1998
Sports goods	68.42 (4)	1,60 (18)	0.59523 (6)	0.5807 (5)			
Dyeing, printing and finishing of textiles	67.28						
Jufe textiles	67.43 (5)	1.46 (20)	0.65231 (4)	0.6084 (4)			
Knitting	64.32						
Thread and threadbatl making	62.08 (6)	1.73 (15)	0.55051 (10)	0.4726 (10)			
Wood, cork and furnitine	61.84						
Pens, pencils and related products	59.61 (7)	2.55 (6)	0.37348 (20)	0.3134 (12)			
Footwear	59.38 (8)	1.66 (16)	0.57372 (9)	0,5132 (8)	i .64	0.58072	0.5202
Tanning and leather finishing	58.60 (9)	1.56 (19)	0.61050 (5)	0.5068 (9)			
Printing and publishing	57.15 (10)	1.23 (22)	0.77429 (2)	0,6561 (3)			

(6)	(7)	(8)	(9)	(10)	(11)
Rate of effective protection	Capital income ratio	Capital income ratio	Capital income ratio	Rate of growth of exports (1960-67)	Proportion of total manufactured exports (1961-64)
	I	*II*	*III*		
117	2.41	13.123	25.7415	0	1.08
(7)	(6)		(1)	(21)	(9)
—10				0	0
(27)				(21)	(25)
235		2.012	3.8488	0	0
(2)			(9)	(21)	(25)
48				10	2.68
(21)				(20)	(4)
105		2.462	4.4729	12	54.86
(8)			(7)	(18)	(1)
				59	0.31
62				51	0.89
(20)				(8)	(11)
		1.682	2.7828	16	0.01
			(13)		
71				56	0.14
(18)				(4)	(19)
46	1.56			36	1.55
(23)	(12)			(13)	(5)
85				55	4.11
(11)				(5)	(3)
18	2.23				
(24)	(7)				

(*contd.*)

NET FOREIGN-EXCHANGE EARNINGS PER UNIT OF FINAL DEMAND

(Worth One Rupee in Domestic Prices)

CContd.)

Industry	(1) Sciligo-Stern exchange earnings I	(2) Price differen-tial I	(3) Revised estimate n		(4) Price differen-tial II	(5) Revised estimate m	
	Net		Gross	Net		Gross	Net
Cotton textiles	55.62 (11)	1.56 (19)	0.61050 (5)	0.5510 (7)			
Baking products and confection	55.31				1.03	0.92464	0.8019
Articles of paper and board	54.74 (12)	1.94 (12)	0.49092 (14)	0.4137 (H)	1.57	0,60661	0,5294
Non-metallic mineral products	53.26 (13)	2.54 (7)	0.37495 (19)	0,3190 (16)	2.10	0,45351	0.3975
Pharmaceuticals and miscellaneous chemicals	52.71 (14)	1.81 (14)	0.52618 (12)	0.3820 (13)	J'i.96\ 1 11.58/1	r 0,60277 \ 0.48590/	/ 0.3400 \0.4568
Cigarettes and tobacco products	51.96						
Manufacture of paper and board	50.71 (15)	1,94 (12)	0.49092 (14)	0.3667 (15)	2.35	0.40526	0.2811
Optical goods	49.75						
Matches	49.71 (16)	1.62 (17)	0.58789 (7)	0.5650 (6)	2.45	0.38872	0.3658
Coal and petroleum products	49,64 (17)	2.07 (9)	0.46009 (16)	0.3683 (14)			
Silk and artificial silk	49.58 (18)	4.50 0)	0.2116 (23)	0.0395 (27)	5,75	0.16563	—0.0065
Transport equipment	47,64 (19)	3.49 (3)	0,2729 (24)	0.0607 (25)	2.94	0,32393	0,1117
Woollen textiles	47.37						
Non-electrical machinery	46.21 (20)	1.89 (13)	0.5039 (13)	0.2762 (18)	1.59	0.59898	0.3712

(6) Rate of effective protection	(7) Capital income ratio I	(8) Capital income ratio II	(9) Capital income ratio III	(10) Rate of growth of exports (1960-67)	(11) Proportion of total manufactured exports (1961-64)
88 (9)		4.610	7.8514 (4)	31 (15)	17.19 (2)
				100	0.22
79 (13)				35 (13)	0.06 (21)
77 (15)	3.67 (5)	3.469	6.5416 (5)	11 (19)	0.93 (10)
75 (16)		1.213	2.1391 (17)	39 (12)	0.50 (14)
		0.781	1.2433 (18)		
79 (13)	1.73 (11)	6.615	11.8370 (2)	—5 (22)	1.45 (7)
10 (25)				43 (10)	0.001 (24)
—7 (26)	2.72 (5)			0 (21)	0 (25)
119 (6)				298 (1)	0.02 (23)
257 (1)	3.00 (4)	5.082	8.3614 (3)	40 (11)	1.66 (6)
		2.880	5.3620 (6)	19	3.03
78 (14)	5.06 (1)	1.915*	3.2009 (11)	33 (14)	1.20 (9)

(Contd.)

NET FOREIGN-EXCHANGE EARNINGS PER UNIT OF FINAL DEMAND

(Worth One Rupee in Domestic Prices)

(Concld.)

Industry	(1) Soligo-Stern exchange earnings I	(2) Price differential 1	(3) Revised estimate II		(4) Price differential II	(5) Revised estimate III	
	Net		Gross	Net		Gross	Net
Canning and preserving of fruits and vegetables	45.86	1.60			1.72	0.55371	0.3226
Salt	45.32						
Leather goods	45.28						
Rubber and rubber products	44.94 (21)	2.53 (8)	0.3764 (18)	0.1662 (23)	2.89	0.32954	0.1193
Alcoholic beverages	44.19				3.25	0,29304	0.2641
Metal goods	43.27 (22)	(.95 0 0	0.4S84 (15)	0.2424 (20)	2,30	*0.41408*	*0.168i*
Electrical machinery and appliances	43.22 (23)	a) 1.60 (18) b) 4.08	0.5952 (6)	0.3839 (12)	2.01	0.47382	0.2625
Wearing apparel	42.64 (24)	3.25 (5)	0.2930 (21)	0.0407 (26)			
Plastic products	41.88 (25)	3.36 (4)	0.2834 (22)	0.0281 (28)	1.95	0.48840	0.2553
Paints and varnishes	39.04 (26)	2.02 (10)	0.4715 (15)	0.2575 (19)	1.70	0.56022	0.3462
Non-alcoholic beverages	33.67						
Basic metals	32.28 (27)	1.66 (16)	0.5757 (8)	0.2130 (22)	1.55	0.61444	0.2537
Perfumes, cosmetics and soaps	25.13 (28)	1.94 (12)	0.4335 (17)	0.1545 (24)	1.07	0.89007	0.611?

(6) Rate of effective protection	(7) Capital income ratio 1	(8) Capital income ratio 11	(9) Capital income j atio in	(10) Rate of growth of exports (1960-67)	(in Proportion of total manufactured exports (1961-64)
				95	0,04
				4	**0.26**
	1.92	0.635	1,0073	50	0.037
	(10)		(19)		
122	2.07	2,039	3.7437	20	0.34
(5)	(9)		(10)	(17)	**(16)**
				157	0,065
133	1,92	1,256	2,2611	30	0.74
(3)	(10)		(16)	(15)	**(12)**
47	2.09	•1.915	*3,2009	56	0,48
(22)	**(8)**		**(11)**	(4)	**(15)**
127				52	0.53
(4)				(7)	**(13)**
87				**66**	0.05
(10)				**(3)**	**(22)**
72				53	0.25
(17)				**(6)**	(18)
84	3.41	1.564	2.7526	47	**0.08**
(12)	**(3)**		(14)	(9)	**(20)**
64				**91**	**0.32**
(19)				**(2)**	**(17)**

Notes' and sources

***Could only get figures for machine total arid they are used for electrical arid non-electrical machinery.**

Capilal-incom© ratio 14]. Rate of growth and relative importance of trade computed from C.S.O. ***Foreign Trade Statistics*** **and** ***Monthly Statistical Ballet ins*** **for various years and E.P.B.** ***Foreign Trade of Pakistan.***

Price differential I [6J.
Price differential H [4j.
Effective rate of protection [4].
Capital-income ratio II [1].
Capital-income ratio III ~ adjusted from capital-income ratio II,
The figures with brackets under each column indicate the rank.