

Summaries of Selected Articles

B. D. Cameron, "Import Substitution", *Economic Record*, December 1964.

The author in this article uses sectoral analysis to find out the level of import substitution in Australia during the period 1953-54 to 1957-58. The rationale behind using this method is that it helps to distinguish the particular sectors where import substitution took place and moreover, the net effects on imports of those import replacement projects which, at the same time, stimulate outputs and use imported raw materials, can be ascertained. Inter-industry analysis is used to trace out the factors influencing level of imports in one period and to determine the changes in imports which should occur if those factors remained unchanged in another period.

In input-output models imports are handled in three different ways: a) the amounts of competing and non-competing imports in different sectors are shown in two rows in the bottom; b) imports and the home-produced goods in one sector are treated in the same fashion; the table becomes a "double-celled" one—the cells showing separately the purchases of home-produced goods and imports of one sector by other sectors; c) only a single imported input coefficient obtained by adding all imports vertically in each sector is used for that sector.

The author chooses the second model in view of the fact that the commodity classes are comprised of non-homogeneous goods. While the change in the import coefficient in a homogeneous commodity group is supply-oriented, in a non-homogeneous commodity-group the relative level of activities of industries having different import coefficients may bring forth a demand-oriented change in the group import-coefficient.

"Double-celled" models require extensive data which are expensive to obtain and are available for a few countries only. So the author simplifies the model and concentrates on four sets of import coefficients: the intermediate purchases of competing imports by the "own" industry, the intermediate purchases of competing imports by other industries, intermediate purchases of non-competing imports, the final demand for imports. Due to the crudeness of commodity classification, products of successive processes are often included in the same group. The goods going to final demand are likely to be different from those used in the production of those goods and same is the case with inputs going to other industries.

During the last decade Australia had to sustain a high rate of investment because of her immigration programme and natural population increase. Conti-

nuing fall in the net terms of trade made Australia resort to import-control policies. While gross national product grew by 21 per cent during the period 1953-54 to 1957-58, imports grew by 13 per cent only. A subdivision according to the above model shows that imports entering into final demand and competing imports used by other industries fell in absolute terms. Competing imports used by "own" industries rose, but in a slower pace than gross national products. The import replacement projects in paper, chemical and motor vehicle industries are also projects with high "own-use" import coefficients. Only non-competing imports rose faster than gross national product. This means that there occurred a heavy import substitution in the first three groups. For the years 1953-54 and 1957-58 four sets of coefficients were calculated for 20 sectors; among 39 positive coefficients 21 fell and 11 were constant.

Import replacement and growth are the two opposing factors influencing the ratio of imports to gross national product. If there was no import replacement the coefficients of 1957-58 would have been the same as that of 1953-54 and imports would have been £103 million less than the actual import in 1953-54. The fall in the magnitude of the coefficients represented import replacement in 1957-58 to the extent this gap was covered. If this gap had been taken into account, the marginal propensity to import during that period would have been 18 per cent in contrast to the actual ratio of 7 per cent.

(MATI LAL PAL)

Raymond P. Christensen and Harold T. Yee, "The Role of Agricultural Productivity in Economic Development", *Journal of Farm Economics*, December 1964.

In this article the authors have attempted to show how the contribution of the agricultural sector to national economic growth depends upon improvement in agricultural productivity. Increase in agricultural output comes from two sources: use of additional inputs, and increased productivity resulting from improved technology. Agricultural productivity is defined as the ratio between total output and total input with annual outputs and inputs (land, labour, and capital goods) valued at constant prices so that real changes in the overall productivity ratio can be observed over time. Increases in agricultural productivity contribute to national economic development and income growth in three major ways: *i*) they supply an economic surplus that can be consumed for use for further production in agriculture or transferred out of agriculture to provide capital for economic growth and meet expanding consumption needs in the non-agricultural sectors; *ii*) they make possible the release of labour and other resources for use in non-agricultural sectors; and *iii*) they increase purchasing power of rural people, expand markets for industrial products and bring about structural changes needed for national economic development.

Expansion in agricultural output derived solely through additional inputs may supply an economic surplus provided the productivity ratio is greater than one. However, this method of increasing output fails to release resources for non-agricultural production and to increase per capita income of the rural population. Hence, for agriculture to play a positive role in the general economic development of a country, it is imperative that a substantial increase in output be obtained through improved productivity.

Change in agricultural output per person employed in agriculture may provide a rough approximation of change in the overall productivity ratio. However, use of additional capital inputs from non-farm sources usually will be associated with increased agricultural output per rural person.

The overall agricultural productivity ratio can rise as the result of a decline in total input relative to total output with total agricultural output increasing at a slower rate than total population. This apparently is what happened in England during the late 1800's when English agriculture was exposed to competition from abroad; imports of farm products increased, and large numbers of rural people moved to jobs in industry. English agriculture became more efficient, although not more prosperous, and thereby contributed to national economic growth. Japan apparently has also entered a similar state in its development.

Conditions, however, in most developing countries today differ greatly from those in England in the late 1800's. They probably will need to rely mainly upon domestically produced food supplies to meet rapidly expanding food needs. Industrialization cannot proceed rapidly enough to provide productive employment for all of the additional workers resulting from rural population growth for another generation or two in most of these countries. But we should not rule out the possibility that many of the densely populated countries will rely heavily upon agricultural imports when they become developed.

In order to get a better picture of agricultural productivity problems facing the less developed countries, the authors have grouped 36 countries arbitrarily in three categories: developed, developing at rapid growth rates, and developing at slow growth rates. The major points that come out from this grouping are that agricultural sector output accounts for less than a quarter of gross national product in most developed countries and for about half in the developing countries, and that slow growth developing countries have relatively low rates of growth in agricultural sector output while the reverse is true of rapid growth developing countries.

With regard to compound annual growth rates for agricultural output and population during the 1952-62 period, countries fall in three sections *i)* a few where agricultural production increased two or more times as rapidly as population, *ii)* a large number where production increased less than twice as rapidly as population, and *iii)* a few where production went up less rapidly than population. Per capita output of agricultural products went up greatly in rapid growth countries like Japan, Greece, Mexico, and Spain, but it declined in slow growth countries like Chile, Argentina, and Pakistan.

In conclusion it may be said that in the case of the developed countries where the agricultural sector usually accounts for less than 20 per cent of national income increased productivity in the non-agricultural sectors obviously will be more important than increased productivity in agriculture in achieving economic growth. However, even in these countries rising agricultural productivity may have important multiplier effects on the rest of the economy.

There are a number of rapidly developing countries such as Japan, Greece, Mexico, and Taiwan, where rising productivity in agriculture was a major source of an economic surplus that supported growth of the non-agricultural sectors and helped bring about structural changes in the national economy through changes in markets for products and services.

But most of the less developed countries are finding it extremely difficult to keep agricultural output increasing as rapidly as population. It is a fact that during the last few years increases in agricultural output in many countries have lagged behind increases in population. The less developed regions of the world—Asia, Africa, and Latin America—have failed to maintain upward trends in food output per capita after the latter part of the 1950.

The less developed countries apparently will not find it possible to enter the take-off stage unless they find ways of increasing agricultural products by 4 to 5 per cent a year if they continue to have population growth rates of around 3 per cent a year.

Finally, it may be said that there is nothing magical about gains in agricultural productivity. Agriculture is but one of a set of interdependent sectors in the economy and gains in the other sectors are no less important. However, if we include marketing, transportation, and processing of agricultural products, and the productions of fertilizer, tools, and other materials under the heading of agriculture, we find that agriculture accounts for a large part of all economic activity in the low income countries.

Benjamin I. Cohen, "The Stagnation of Indian Exports, 1951-1961", *Quarterly Journal of Economics*, November 1964.

The foreign exchange problems of the underdeveloped countries have attracted attention to their relatively stagnant export earnings. Some observers think, this stagnation is due to slowly expanding world demand for the exports of these countries. Others argue that inelastic supply of exports due to slowly expanding production mixed with increased domestic demand, is the primary cause of this stagnation.

In this study Indian export performance over the decade from 1951 to 1961 is examined to test the above two hypothesis. India was third only to Venezuela and Brazil in 1961 as an exporter among the underdeveloped countries. From First Five Year Plan to the Second her exports rose only by 2 per cent. Although world exports tripled since 1948, Indian share in it declined from 2.5 per cent in 1948 to 1.2 per cent in 1961. This was due to loss of part of her share of the expanding market for her traditional exports. The 16 commodities selected for this study accounted for some 67 to 76 per cent of Indian exports. The volume of world exports of all these commodities in 1960 was much above that of 1948. But India managed to increase continuously her share in world exports of iron ore only. For some commodities her share has fallen over the decade. For some others her share has fluctuated around a mean which is much below its post-1948 peak. For the rest, her share does not show any trend.

In an attempt to find out the cause of this stagnation, potential export earning of India was projected under the assumption that India had maintained her share of world exports of each of the 16 commodities since 1953 at unchanged annual export unit values. It shows that 90 per cent of the big increase in potential earnings came from seven commodities only—peanut oil, cotton cloth, jute goods, tea, leather, raw cotton and manganese ore. India lost her share of the expanding world exports in these traditional exports.

This was due to her unfavourable relative export price. The statistical evidence shows that India's market share is inversely related to her relative *c.i.f.* price. This inverse relationship suggests an upward shift over time in the supply curve of Indian exports.

This upward shift was caused by a number of government policies. Government planners might have felt that a dramatic decline in Indian foreign exchange reserve was a prerequisite for getting foreign aid. As a result almost no export promotion policies were suggested upto Second Five Year Plan. Moreover, even if a policy of export promotion had been considered generally desirable, its

implementation conflicted with other economic goals. These conflicts were more pronounced in those commodities for which the potential increase in exports was the greatest.

During the first two plans, export promotion conflicted with other economic goals such as increasing the flow of foreign aid, controlling imports, increasing government revenues, maintaining short-run employment, stabilising domestic price of consumer goods, encouraging high-cost small producers and conserving natural resources. Thus, import control required the surrender of all foreign exchange earnings by exporters to the government. This created much complication resulting in export disincentive. Then export promotion of peanut oil was subordinated to maintenance of stable domestic price. Attempts to reduce cost of production by installing automatic looms was resisted by labour unions. Moreover, the export subsidy to cotton cloth was not brought in line with rise in cost of production. Similarly, lack of subsidy affected export of jute manufactures. High export duty on tea for revenue purpose and attempts to stabilise domestic price affected tea exports. Similarly, export duty on raw cotton affected exports. Increase in domestic demand reduced exportable surplus of leather. Conservation of natural resources led to loss of market for manganese ore. Thus, we find that government policies affected cost of production and domestic demand which, in turn, raised supply price for Indian exports, resulting in stagnant export earnings.

Under the circumstances, by reducing relative export price, India may at least be able to stop further loss of market shares. During Third Plan period, India is adopting export promotion measures like cash subsidy to sugar exports, reduction in tea export duty and income tax rebate on export sales. Devaluation may also prove effective in reducing import control and export prices. Devaluation can also be supplemented by high tariff and export subsidy. The general conclusion that follows from this analysis is that mere increase in production of export goods is not enough; for boosting up exports India has to reduce her cost of production and restrict domestic demand.

(AZIZUL HAQUE CHAUDHRY)

Albert Fishlow, "Empty Economic Stages?" *Economic Journal*, March 1965.

The evaluation of the historical adequacy of take-off theory brings out a duality in Rostow's presentation. The aim of this paper is to re-examine the theory and provide with a new point of view by differentiating between sectoral and aggregate approaches and also to introduce the role played by technological change. It also contends that the recognition of such duality is the main contribution which was made by the Conference held by the International Economic Association.

The duality in its turn depends on: a) the sectoral approach through forward, backward and spreading effect; and b) aggregate approach through increase in saving and investment rates. The sectoral model, therefore, presumes the availability of resources while the aggregate approach is confronted with saving investment constraints. Rostow's attempt, to establish a relation between both the approaches, fails and sectoral model is found to be inconsistent due to the lack of constraints.

The discussion further attempts to prove that the theory is inappropriate for an economy in transformation, the reason being that Rostow's approach leads to an *entre'e* to the problem of transition rather than to its solution. The statistical information from some Latin American countries further frustrates the theory and establishes that, while the preconditions and transition were satisfied, the expected sustained growth did not materialise. It is also pointed out that the early stages should have been discussed independent of later events but, on the contrary, Rostow did not successfully integrate non-economic factors into his analysis.

Professor Gerschenkron recapitulates the history of industrialization in the late nineteenth century and points up two important weaknesses of the aggregate model. He contends that:

- i) Since the national income is very insensitive measure of transformation, the predicted increase in saving proportion may not be realized despite rapid industrialization; and
- ii) the universality of the take-off theory can be questioned on the ground that it affords no opportunity to array national experience, no chance to contrast and compare, and so to fashion a hypothesis relevant to all countries.

As far as the sectoral approach is concerned, the evolutionary process in some countries (e.g., the state of *Sao Paulo* in Brazil) may amend Rostow's proposition. But it requires an extensive analysis and research into the problems relating to central points of the theory. However, revised version of the theory is somewhat historical analogue of Hirschman's strategy (of unbalanced growth).

By translating Rostow's emphasis upon productivity changes as one of the fundamental influence and relating some initial propositions, the take-off becomes a sectoral joint theory of output change and technological diffusion. Thus, the introduction of technology brings back the logical basis of the earlier Rostow conjunctures of the pattern of industrialization.

The conclusion is that the take-off phase must be integrated into sustained growth and in addition to it, a reasonable rate of growth in agriculture is necessary to achieve a rapid increase in national income. At this stage, therefore, the sectoral approach can be useful and research may be carried into many unsolved problems of economic growth.

(M. AHMAD ZIA)

P. S. Laumas, "Doctrine of Balanced Growth and the Theory of International Specialisation", *Economia Internazionale*, November 1964.

This paper analyses the situations under which the theory of balanced growth is compatible with the principles of comparative advantage. Balanced growth is the expansion of the consumer goods industries according to their income elasticities of demand. Three major deductions can be made from such a definition: a) balanced growth enters only on the demand side; b) it relates only to the consumer goods sector; c) it does not involve unlimited supplies of capital. The third feature is in contradiction with Ragnar Nurkse's rather well-known formulation of balanced growth where an unrealistic assumption of unlimited supplies of capital has been made.

Ragnar Nurkse argues that balanced growth increases the level of productivity and real purchasing power, and hence it creates a better foundation for international specialisation. The argument is not acceptable because it is not clear why balanced growth as a strategy should be considered better than other strategies. Moreover, Nurkse's presentation of balanced growth implies a high degree of capital intensity whereas the principle of international specialisation suggests that underdeveloped countries should concentrate in the production and export of the labour intensive goods.

John Sheahan contends that instead of balancing we should rather concentrate in industries with low or falling costs. The above criterion is vague because it does not necessarily establish that the gains from trade is greater than the gains from growth in terms of both investible surplus and external economies.

According to Harvey Leibenstein, if balanced growth leads to profit maximization it is compatible with the principle of international specialisation. If we assume that profits are maximized when marginal revenue equals marginal cost, then it can be shown that such equality can be achieved at various levels of output. It seems, therefore, that the more relevant criterion is not whether profits are maximized but which allocation yields greater overall gains.

Balanced growth in relation to international specialisation is normally associated with some gains in external economies, potential loss of increasing returns to scale, and some sacrifice of the gains from trade. If balanced growth offers net real total gain then it would be wise to plan according to balanced growth. If we admit the possibility of changes in the cost structure, the re-investible surplus generated by balanced growth or specialisation should also be taken into account in weighing the gains from the two situations. It follows that balanced growth is compatible with international specialisation excepting under the circumstances where total gains from balanced growth is less than the gains from allocation according to comparative advantage.

(ABDUL GHAFUR)

A. I. MacBean "Causes of Excessive Fluctuations in Export Proceeds of Underdeveloped Countries", *Bulletin of the Oxford University*, November 1964.

It is generally held that underdeveloped countries experience much greater fluctuations in their export proceeds than developed countries, and that such instability can be largely explained by special characteristics of the commodities which these underdeveloped countries export and of the structure of their exports. These characteristics include: *i*) a tendency on the part of the underdeveloped countries to export only or mainly primary products; *ii*) a tendency for their exports to be concentrated on a relatively small number of products; *iii*) a tendency for their exports to be concentrated in their geographical destination in one or two countries.

The results of the empirical study conducted by the author, however, suggest that differences in export fluctuations of the developed and the underdeveloped countries are much less than commonly supposed. On the basis of simple correlation and multiple-regression analysis it appears that the well-accepted and plausible causes for expecting the exports of the underdeveloped countries to be highly unstable, turn out to have very little explanatory value. Export instability appears to be hardly related to commodity concentration at all, to be very weakly related to the proportion of exports which are primary goods and to be negatively related, if anything, to geographic concentration.

In order to see how much of the variation in the degree of export instability can be explained by all three together, a multiple-regression analysis was carried out which shows that the three variables together explain less than 25 per cent of the variation between countries in export instability.

An examination of individual countries who experienced severe instability in their export proceeds reveals that very specific factors have, more often than

not, been the main explanation. Political instability, war, natural calamities, export bargaining policies, and policies of discrimination against export industries have been the main causes of export instability. Such theoretical explanations as specialization in primary products in general or commodity concentration may have some slight systematic tendency to produce export instability but their explanatory value in particular cases is very small. Even when looking at the broader picture of explaining why underdeveloped countries' exports should be more unstable than rich countries' exports they are not particularly helpful.

(GHULAM MOHAMMAD RADHU)

Thomas Mathew, "Inflation and its Remedies in India's Planned Economy", *Developing Economies*, December 1964.

This paper discusses the Indian experience of checking the inflation generated by the process of development.

It is commonly accepted that inflation can become an important instrument for development as it helps to raise saving mainly through causing a shift in real income from people who have low marginal propensity to save to those having higher marginal propensity to save. However, there are two schools of thought (*i.e.*, the monetarists and the structuralists) who find inflation unhelpful to growth for different reasons.

The monetarist view is that inflation tend to create conditions that reduce the available resources and their efficiency for development, and the savings are likely to be lower than under stable monetary conditions. On the other hand, the structuralists find structural conditions helping inflation to develop when exports are not rising as fast as the conditions of development require them.

Contrary to the above positions, India has been able to hold the inflationary tendencies in check, despite having all the institutional features (*i.e.*, dominating agricultural economy, stagnant exports, low marginal rate of saving and the traditional nature of the society) which could generate serious inflation. The various factors that helped to check inflation in India were proper monetary and fiscal policies, price control policies, PL 480 imports and other external aid.

On the monetary front, the Reserve Bank of India made use of selective controls to divert bank credit to channels approved by the plans. Before 1957, serious legal limitation was placed upon the capacity of the Reserve Bank to expand money supply because of the 40 per cent minimum reserve requirement. Though the proportional reserve system was modified in 1957 to enable the

bank to expand money supply more easily, yet the bank exercised self-restraint in view of the stabilization objective. Moreover, the Reserve Bank acquired authority to vary the reserve requirements of the scheduled banks over a wide range of 5 to 20 per cent for demand liabilities and 2 to 8 per cent for time liabilities.

During the Second Plan the selective credit control was the chief instrument of monetary policy and credit limits were imposed against commodities which were mostly traded with the help of bank credit (*i.e.*, rice, wheat, cotton, *etc.*). Among the other instruments, bank rates were raised along with the selective controls to raise the cost and to reduce the availability of credit.

In 1962 when national emergency was declared, very stringent policy of credit control was adopted through fixing ceiling on the availability of credit to banks, tightening the selective controls, and charging progressive rates of interest on borrowings by banks. The average cost of borrowings by banks from the Reserve Bank during the first half of 1963 was 5.4 per cent as against 4.6 per cent during the first half of 1962.

The import of food and other agricultural commodities under PL 480 helped the supply side of the commodity market faced with a rapidly increasing demand, caused the withdrawal of money supply, and checked the creation of bank credit to the extent of the funds realized through sales.

Fiscal measures supplemented the monetary measures. During the First Plan, only a small proportion of the requirements were met out of the public saving and the government had to resort to deficit financing. However, there was no increase in price level upto the end of the fourth year of the First Plan, but in the final year production fell and prices moved upward.

During the Second Plan, the rate of investment was raised from 7 to 11 per cent of the national income. Some additional taxes were imposed to find resources for the development programme, but greater emphasis remained on deficit financing resulting into an appreciable rise in the price level, though PL 480 imports reduced the pressure on prices to some extent.

With the beginning of the Third Plan (1961-66) India faced problems of defence and development. Additional taxes were imposed to meet the increased public expenditure and as a result the ratio of tax revenues (Central as well as State) to national income rose from 9.6 per cent at the end of the Second Plan to 13 per cent. Tax policies were designed to curb imports, encourage import substitution and to restrict consumption to help keeping the inflationary pressures to the minimum.

In addition to the monetary and fiscal measures, the government exercised controls over capital issues, price, production and distribution of certain commodities. To make price controls effective, India controlled supply and demand conditions of certain commodities as it was illustrated by grain procurement policy, stock piling of foodgrains, and the State Trading Corporation of India, etc.

(SYED MUSHTAQ HUSSAIN)

R. I. McKinnon, "Foreign Exchange Constraints in Economic Development and Efficient Aid Allocation", *Economic Journal*, June 1964.

Foreign exchange plays a dual role in economic growth. It supplements domestic saving in the receiving country; it removes bottlenecks caused by inadequate availability of goods having strategic importance in efficient industrial growth. When such bottleneck constraint is binding, foreign private investment or aid can have a large favourable impact on the growth rate even though these transfers are a small fraction of available domestic saving.

This paper constructs a planning model of the Harrod-Domar type, incorporating the effects of international trade on the growth of developing countries. It illustrates, in particular, the ideas of separate savings and bottleneck constraints and provides a general framework for evaluating the "pay-off" in terms of economic growth of foreign transfers under different assumptions with respect to savings and export parameters.

To show the impact of foreign trade on the aggregate productive capacity of the economy, foreign goods are introduced as inputs into a domestic fixed coefficient production function of the Leontief type. To begin with, constant average propensities to save, import and export are assumed.

The growth rate in the model is given by the aggregate investment and capital-output ratio. But this is achievable only if the foreign component of the investment required is within the bound of the maximum export earnings of the country associated with the growth rate. A bottleneck constraint holds if the growth rate determined by the aggregate potential saving rate and capital-output ratio is greater than the growth rate permitted by the export capabilities and requirements for foreign capital goods. Foreign transfer will have the effect of increasing purchases of foreign capital goods when the bottleneck constraint exists and it will have the effect of increasing the effective level of total investment in both domestic and foreign capital goods when the saving constraint exists. As expenditures for foreign capital goods form only a fraction of domestic capital formation, foreign aid transfers will always have a proportionately greater effect on growth rate when the bottleneck constraint holds than if only the savings constraint holds.

When current account imports are allowed in the model the bottleneck constraint will be operating as soon as the growth rate permitted by export capabilities in excess of current materials imports and foreign capital requirement per unit of output falls short of the growth rate given by potential domestic savings and capital-output ratio. If the former rate is greater than the latter the savings constraint will be relevant. In case the excess export capability is negative, self-sustaining growth will be impossible. However, a sufficiently large foreign transfer such that the foreign aid plus export earnings are higher than the current account import bill may make growth possible. Also, in this case, foreign transfers, if not very large, may only go to make a higher level of income sustainable by covering some of the current account materials need, without enabling accumulation of capital and growth to occur.

Next, the assumptions of constant average propensities to save and export are released to allow the possibility of a pump-priming effect of transfers on saving and export capabilities making a higher rate of growth in the receiving country eventually self-sustaining. Assuming that exports will be sufficient to take care of any import needs it is seen that a stagnant economy with potential positive marginal propensity to save can eventually sustain on its own a growth rate initially brought about by foreign transfers provided the growth rate chosen is less than the product of capital-output ratio and the marginal propensity to save. The more marginal savings rate exceeds the average savings rate necessary to make the growth rate eventually self-sustaining the more quickly the foreign capital transfer can be curtailed. Given the growth rate, both total aid requirements and termination date for foreign aid vary inversely with marginal propensity to save. For very high marginal rates of saving the total aid requirement for a higher rate of growth may be less than that for a lower growth rate. In other words, if the growth rate could be freely chosen, the higher the marginal rate of saving the higher will be the optimal growth rate that minimizes the foreign exchange transfer needed to achieve a target level of income.

Similar conclusions follow if we assume a case of high potential savings, high marginal propensity to export but where growth is inhibited by initial lack of foreign capital goods. A growth rate initiated and fed by foreign transfers can eventually become self-sustaining provided the net marginal propensity to export over and above current account materials import is greater than the product of the growth rate and the proportion of foreign capital required per unit of output.

The models used here do not allow substitution possibilities. These can be made less rigid and more responsive to price considerations by the use of import substitution as an alternative to export expansion and the relaxation of

the assumption of fixed input needs in the production function. Intuitively, one would suspect that the ratio of domestically produced goods to foreign capital goods is not likely to fall in an efficient development programme in a moderately sized country. Import substitution in some simpler lines will be compensated by growing demand for more complex capital goods imports. Also, assuming that developing countries have wide substitution possibilities between domestic and foreign produced inputs would be a mistake. Taking limited substitution possibilities in both output-mix and factor-input needs into account would not alter the basic conclusions of the paper, which depend on separate bottleneck and saving constraints on growth.

The analysis presented here may be used in conceiving how a limited aid budget should be distributed among countries at any point in time, as well as the time profile of aid to any given country. The existence of potential domestic savings is seen to be a necessary condition in obtaining a high pay-off on a given foreign aid transfer. Besides concern for potential saving, there are a number of factors which affect the productivity of new investment, such as the presence of a well-trained labour force. Other things being equal, the pay-off of fairly massive aid transfers will be greater in countries which have attempted to improve general education level of their population than in a primitive economy which lacked the most rudimentary requirements in trained manpower. In the latter case, absence of trained manpower may be the dominant constraint and the strategy economising most in aid would be initially giving small amounts to provide training facilities.

(A. H. M. NURUDDIN CHOWDHURY)

Charles Yneu Yang, "An International Comparison of Consumption Functions",
Review of Economics and Statistics, August 1964.

This study seeks to test the Keynesian hypothesis concerning consumer behaviour that current income is the main determinant of current consumption and the marginal propensity to consume is less than unity. These hypotheses were tested for eighteen countries and an international comparison of consumer behaviour was thus made possible. In addition, certain factors accounting for international differences in aggregate consumption ratios were also discussed. The data relate to the period 1950-1959.

The author uses two functional relationships. First, per caput consumption (c) was taken as a function of per caput personal disposable income (Y) after taxes and net transfer to the government, both being at 1953 prices. In the second function, an addition determinant (ΔY) was added measured as a change in Y from the preceding year. It appears from the results that while the income

level was found to be a significant determinant of the size of the consumption in the short-run, the effect of the change in income on the consumption level was observed to be significant for only eight countries.

The hypothesis of less-than-unity marginal propensity to consume was next examined. Wide differences were noticed between the marginal propensities to consume of different countries and indeed, for Formosa, Peru, and Columbia they were observed to be greater than unity. But in all these three cases, severe inflationary pressures seem to have strongly influenced the consumer's spending habits.

The author then considers the factors affecting the international differences in the aggregate consumption ratios. Consider first the "absolute income" hypothesis according to which consumers in higher income brackets spend a relatively lower proportion of their incomes than people in the lower income brackets, a claim whose validity is denied by the proponents of the "relative income" and the "permanent income" hypotheses. Secondly, since a high rate of growth is often associated with a high rate of saving, the aggregate consumption ratio was then advanced as inversely related to the rate of economic growth. The relation between the stage of industrial growth and the aggregate consumption ratio was next considered. Finally, a negative relation between aggregate consumption ratio and investment incentives in the form of price changes and changes in interest rates was advanced. All the above factors were then statistically related to the aggregate consumption ratio of all the eighteen countries. It was found, however, that except for the coefficient for the rate of growth none of the other coefficients were highly significant.

(K.A.T.M. HASAN IMAM)

FAO, "Instability and Stabilization of the World Market for Raw Jute", *Monthly Bulletin of Agricultural Economics and Statistics*, Vol. 13, No. 12, December 1964 and Vol. 14, No. 1, January 1965.

I

Fluctuations in the world prices of raw jute adversely affect the competitive position of jute and jute goods in world markets, the stability of jute grower's incomes and the stability of foreign exchange earnings needed by producing countries for their economic development. This paper throws light on the resultant instability in the world raw jute market, recent attempts at stabilization and other possible solutions.

In Pakistan and India, markets for raw jute are characterized by seasonal fluctuations in stocks and prices, those in stocks being generally the wider of the two. Seasonal variations in the volume of stocks are the most pronounced

in the baling centres in Pakistan where the difference between the lowest level and the highest level represents about 90 per cent compared to about 66 per cent in India and 30 per cent in France. The need for storing part of the crop results in seasonal variations in raw jute prices. These are greatest in Pakistan: a 23 per cent difference between the September low and the May high; the comparable range is only 13 per cent in India and 12 per cent in France. The high degree of seasonal variation shown by jute prices in Pakistan may be due to some flaws in marketing methods, lack of low interest credit facilities, and shortage of warehouse space.

With regard to fluctuations in supplies, these reflect mainly fluctuations in the area planted. A season of short crops sold at high prices tends to be followed by a season of bumper crops associated with low prices. Even during periods of wide fluctuations in jute supplies, however, jute demanded by mills shows no corresponding variations. Most of the year-to-year variations in raw jute supply are, therefore, reflected in the level of stocks which varies widely in consequence. Variations in these stocks tend to affect world prices immediately and their impact is generally strong. According to FAO estimates, an increase of 7,00,000 bales in the stocks held by Pakistani dealers frequently results in a 50 per cent decline in raw jute prices and *vice versa*.

These findings seem to indicate that the stabilization of raw jute prices would require a well organized world buffer stock policy, associated with other measures.

II

In an attempt to regulate the volume of raw jute production, Pakistan controlled jute area by a licensing system from the date of Partition until the beginning of the 1960/61 season. After 1956/57, however, high prices of jute led the farmers to grow jute on areas that exceeded the licensed area.

The fundamental drawback of the acreage licensing scheme, lay not in the fact that it ignored variations in yields, but in that it could place only an upper, not a lower, limit on the volume of production. In times of scarcity, acreage licensing could not guarantee a minimum supply of jute, and prices could, therefore, rise unchecked.

The periodic fixing of prices to growers and exporters was also tried in both Pakistan and India with a view to supporting price and safeguarding foreign exchange earnings. The object was never completely achieved due to the absence of regulated stock holding operations.

In India, the Jute Enquiry Commission, set up in 1953, found the minimum price policy of raw jute as inadvisable and recommended that the measures

like establishment of regulated markets and warehouses, the organizations of multipurpose cooperatives and ancillary measures would be more helpful in the long term interests of the growers. Price control had to be imposed in 1960 when reports of an imminent crop failure set prices rising in early 1960. With the cooperation of the Indian Jute Mills Association, it was possible to maintain floor and ceiling prices for periods long enough to achieve some degree of stability. In order to ease the burden carried by jute mills the Government of India agreed to finance the purchase of one million bales of fibre. The Jute Buffer Stock Association formed by jute mill companies was accordingly established. Through the operations of the buffer stock and the mandatory purchase of monthly quotas by mills, raw jute prices in India were successfully stabilized during the past two seasons.

In Pakistan, buffer stock operations are entrusted to East Pakistan Jute Marketing Corporation and the Jute Board. As a result of the government's stock policy, prices at bailing centres were successfully maintained. Minimum export prices were also maintained unchanged from mid-1962 to mid-1964. World prices of Pakistani jute also remained stable during this period, but the volume of export which was high in 1962/63, fell off in 1963/64 as well stocked importers held out for lower prices.

In India and Pakistan, the level of production and the seasonal pattern of arrivals on the market varied with free market forces and weather conditions rather than with national stabilization measures. In 1963/64, production was expanded and demand also remained unaffected in India, where growers benefitted from the price stabilization scheme; while in Pakistan demand shrank with falling exports and growers were not much benefitted. The experience of India and Pakistan in the field of national stabilization measures raises the question of setting national stock-holding operations in the wider context of some form of international stabilization arrangements designed to benefit the world jute economy, which would enhance the effectiveness of national schemes and reduce the overall costs.

Statistical evidence for the past thirteen years suggests that substitution between jute and rice takes place from one season to the next in accordance with movements in the relative prices of rice and jute. In view of the fact that mill activity does not appear to be responsive to short term changes in raw jute prices, a satisfactory degree of stabilization of raw jute prices would probably be achieved in world markets by confining buffer stock operations to the raw fibre only. Nevertheless, consideration should also be given to the relationship between policies proposed for raw jute and those relating to the principal types of jute manufactures.

The United Nations Conference on Trade and Development strongly emphasized the part which commodity arrangements should play in securing "an overall stabilization in primary commodity market", while taking into account the interests of consumers in importing countries.

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