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ISAD(G) Reference Code: WB IBRD/IDA 03 EXC-10-4481S

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Digitized: June 14, 2013

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IRVING FRIEDMAN - COMMODITY STABILIZATION STUDY



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INTERNATIONAL FINANCE CORPORATION

# OFFICE MEMORANDUM

TO:

Mr. Irving S. Friedman

DATE:

July 25,1968

FROM:

R.M.Sundrum

SUBJECT:

Financial Requirements for Price Stabilization.

I am enclosing herewith a note by Miss Gertrud Lovasy, which makes the case for long-term financing of reserve stocks, with estimates of financial requirements for the case of sugar. Regarding buffer stocks, she argues that the financial requirements would "essentially be of a short term character."

# Financial Assistance in connection with Commodity Agreements

Agreement which explicitly or implicitly provides for holding of stocks, either internationally or by participating countries. This applies to buffer stocks, the most frequently discussed but rarely used technique, as well as to reserve stocks, which share some of the features of the former, but are more of the nature of strategic stockpiles though their ultimate objective is different. While buffer stocks require short term financing, the holding of reserves would call for long term investment.

The technique of <u>buffer stocks</u>, intended to even out short run fluctuations and to stabilize prices within a certain range, has been discussed in some detail in Part I (Chapters IV and V). Although operations may be modified in various ways they consist essentially in:

- (a) purchasing the commodity in question if and as long as prices remained at or below an agreed floor;
- (b) selling from the stock if and as long as prices remained at or above an agreed ceiling.

No transactions would take place if and as long as prices move within the agreed range.

Operations would obviously have to start with purchases, requiring funds which might be provided in form of credits. Subsequent sales would set funds free and permit repayment. You further credits would be required up to the time when prices again declined to the floor. Thus, lending operations would essentially be of a short term character, requiring revolving credits at irregular intervals. This would fall cutside the orbit of

<sup>1/</sup> Mince cale prices would always exceed buying prices, full repayment may be possible even though the initial stock may not be exhausted.

the Bank Group; proposals concerning the financing of buffer stocks have been prepared by the International Monetary Fund.

The objectives of a reserve stock, suggested for supplementing an International Sugar Agreement (see Part I, Chapter VI, para. 53), would be more limited than those of a buffer stock. It would aim at preventing price increases beyond the ceiling so as to avoid the stimulus for over-production, but would not attempt to keep prices above the floor; this would have to be achieved by other measures. The case for maintaining a reserve stock would be strongest for commodities which are produced or have close substitutes in developed importing countries. Under such conditions a sharp price advance is likely to induce expansion of output or a (further) shift to substitutes in these countries, thus reducing export outlets for developing exporters. Benefits for the latter would primarily, though not exclusively, accrue in the form of preserving markets for their products. However, by preventing price booms which induce surplus production, subsequent sharp price declines would also be prevented.

As under a buffer stock scheme, operations would have to start with purchases, preferably in a 'low price' period, though not necessarily at or below the 'floor price'. But the criteria for ending (and for resuming) purchases would differ for the two types of stocks. Buffer stock purchases would continue as long as prices remained at or below the floor

Short term financing may also be required under a quota type Agreement not explicitly providing for stock operations. Individual countries in years of short demand or exceptionally large supplies (e.g., through a large crop) may have to retain supplies for which, under existing quota restrictions, no impediate outlet can be found. Such a contingency might be covered under the DIF proposals.

<sup>2/</sup> Initial purchases and subsequent stock replenishment may, however, have the incidental effect of supporting prices at or above the floor level.

level, irrespective of the volume bought. Purchases for the reserve stock would continue until the desired stock level had been reached and would stop there and then, even if prices were at or below the floor.

Operations when prices are at or above the ceiling would be much the same for both types of stocks: selling would continue as long as prices exceeded the ceiling, or until stocks are exhausted.2/

While in case of a buffer stock the proceeds from such sales would be used to repay credits received, in case of a reserve stock the proceeds would be retained and used, as soon as feasible, for stock replenishment. To be sure, purchases would proceed cautiously and at the lowest possible price, but not necessarily at or below the floor. Since speedy stock replenishment would be essential for fulfilling the main function of a reserve stock, it is conceivable that under certain circumstances temporary expansion of production for that purpose might be sought. Obviously the capital originally invested in building up the reserve would be a long term investment and as such would fall within the orbit of the Bank Group.

Although this would apply as a general rule, some modifications might be introduced in either case: a quantitative limit may be set for stock accumulation under a buffer arrangement; purchases for a reserve stock may be (temporarily) halted when prices exceed some predetermined level.

<sup>2/</sup> Ideally a buffer stock would also serve the purpose of a reserve to be used for maintaining prices at the ceiling; actually, however, since purchases would explusively be made when prices are at or below the floor the case may well arise where prices between the two peak periods would remain within the range (although possibly close to the floor) and stocks would not be sufficient to stave off the second boom. The difficulty of defending the ceiling through buffer stock operations has been pointed out in Part I, Chapter IV, p. 11.

<sup>3/</sup> This is in sharp contrast to a buffer stock where 'production for the stock' would defeat its purpose.

Each loans provided so far, but the ultimate purpose - avoiding overinvestment and therefore misdirection of resources in response to a
shortlived price been - is as such in line with the general sins of the
Bank Group as the promotion of development through project loans. As
pointed out above, over-empansion is particularly harmful to developing
experters if it takes place in (developed) importing countries where it
is bound to reduce expert outlets. Cutbacks in response to lower prices
are rare and slow; the reduction in expert outlets tends to be permanent.
Obviously the Bank Group would consider the financing of reserve stocks
only if operations of such a stock formed part of market regulation under
on international Agreement and if, in the judgment of the Bank, the benefits
expected from the operation of a reserve stock would justify the investment
required. If these conditions were fulfilled the Bank may such to contribute part, but not the total, of the capital needed.

# The Special Case of Sugar

As indicated earlier, the need for a reserve stock supplementing an international Sugar Agreement has been suggested in Part I. Such a reserve would benefit exporters whether the Agreement were to be based on long term contracts (as proposed in Part I) or on export quotas (as envisaged at the recent International Sugar Conference, to be resumed September 23, 1968).

Sugar can be produced in almost every part of the globe in the form of either case or beet, and experience has shown that temporary price booss invariably induce accelerated expansion of output, not only in exporting but also in developed importing countries. In the latter, production has been stepped up at a rate far in excess of consemption growth, thus reducing export outlets for developing case exporters.

Horeover, every price boom was followed by a decline in the world price to loss than its pre-boom level. As a result, export receipts of developing countries have been adversely affected on account of both volume and price. These developments, particularly pronounced in recent years; strongly suggest the need for avoiding recurrence of price booms. This can only be done by maintaining an adequate emergency reserve.

There is no way of determining with certainty the size of a reserve stock needed to fully meet this objective. Well informed experts have suggested that 1.5 million metric tons (roughly nine percent of net sugar experts in recent years) should be adequate. In order to have supplies quickly available where required, stocks should be spread over a range of experting and importing areas.

A rough estimate of the cost of acquiring such a stockpile, assuming an average f.o.b. price of three cents per pound and including freight from exporting to importing areas for half the stock, as well as construction of additional storage space for about one-third, is given below:

	(3 million)
1,500,000 tons at 3 cants/lb (866 per ton) Preight on 750,000 tons at 1 cont/lb (822 per ton) Construction of storage space for 500,000 tons	99.0 16.5
(\$24 per ton) Insurance and other sundry expenses	12.0 2.5
	130.0

Current f.c.b. prices are well below two cents per pound; even though allowance has to be made for a price rally in response to additional demand for stockpiling the assumed average of three cents may well be too high. 'ccording to estimates by the International Sugar Council current surpluses amount to roughly 2.5 million tons, a large proportion being held in developing exporting countries. If purchases for the stockpile were to be made in the near future, absorbing part of the surplus, a considerable volume could probably be acquired at a price of some two conts per pound, which would greatly reduce total cost.

exporters is a complex task. It involves measuring the loss of markets caused by the increase in self-sufficiency in net importing areas induced by temporary price advances. A rough approximation may be obtained, however, on the basis of recent developments. In the years following the sharp price increase of 1963 the degree of self-sufficiency, i.e., the ratio of production to consumption in net importing developed countries,

ross by 11 percent, as compared to 4.3 percent in the years preceding the price advance. In terms of volume the annual average increase in production beyond consumption growth ascunted to 955,000 tons in the post-born years against 350,000 tons in the preceding period. Valued at 1964-66 prices the relative increase, which measures the loss of markets to exporting countries, ascunted to \$101 million in the second period against \$17 million in the first. The difference between the two figures, i.e., \$54 million, may be taken as the loss attributable to the production increase induced by the price advance. Allowing for the share in exports originating in developed countries the annual loss to developing exporters may be roughly put at \$100 million (\$120 million over the three-year period 1964-66).

This computation makes no allowance for further losses incurred through a sizeable expansion of output in competing developed exporting countries induced by the price boom or through the subsequent disastrous decline of world prices. If these factors had been taken into account, the loss which could have been avoided by preventing the price bour would have been considerably in excess of the figures shown.

However, the loss of markets through increased self-sufficiency in importing countries taken by itself - ShO million per year - would justify the cost of \$130 million to establish a reserve stock, which could prevent such losses.

If The comparisons refer to enumal average increases from 1961-63 to 1964-66 and 1958-60 to 1961-63.

<sup>2/ 5.9</sup> cents for the U.S. and 3.2 cents for other areas.



The Secretary, IBRD

DATE: July 24, 1968

W. L. Hebbard SM

SUBJECT . Commodity Studies - Exchange of Observers and Documents

This is to inform you that at this morning's Executive Board meeting. the Fund Board agreed to the following:

- 1. That the Fund would welcome an observer from the IBRD to attend meetings of the Fund Board during discussion of the Stabilization of Prices of Primary Products (Fund Governors' Resolution No. 22-9), with the hope that the Bank would extend a similar invitation to the Fund. It is my understanding that, if this is agreeable to the IBRD, arrangements will be worked out between the economic officers of the two organizations.
- 2. That the Fund would make available to the Executive Directors of the IBRD--again hopefully on a reciprocal basis -- the Fund Part II of the Study. This would be made available to the Executive Directors of the IBRD for their background information when they are considering the IBRD Part II. I would appreciate hearing from you how many copies of the Fund Part II would be required to meet your needs. In this connection you will, of course, appreciate that distribution of the Fund Part II to member countries will be performed by the Fund Executive Directors and that the quantity we would send you would not contemplate any necessity that the Bank Executive Directors transmit the documents to the same countries.

For your information, we are scheduling the discussion of this matter for July 31 and August 2 and possibly--if arrangements can be worked out-on part or all of Thursday, August 1.

# OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman

DATE: July 18, 1968

FROM: R. M. Sundrum

FORM No. 57

SUBJECT: Draft of Part II of Commodity Study

I am enclosing herewith a draft of Part II of the Commodity Study, dealing with the scope of Bank action. The draft was prepared with Mr. Avramovic before he left on vacation. At various places, the draft indicates a number of alternatives from which a final position has to be chosen.

On some questions, the statement of the policy alternatives open to the Bank has been expressed very compactly and in very general terms. In case it is desired to be more specific on these issues, I am describing below what seems to me to be the basic problem.

I believe the main purpose of Part II is to indicate in what ways Bank policies would differ in the future, in the light of its greater concern with the problems of the primary commodity trade of the developing countries. In discussing this, we might distinguish two cases: Case I, where we are dealing with countries which are members of an International Commodity Agreement, and Case II, where we are dealing with commodities not covered by any international agreement, or with countries which are not members of any such agreement.

In Case I, we might in addition to our normal procedures, undertake the following new activities:

- (i) Examine the provisions of an agreement, from the point of view of its effect on the development programs and efforts of the member countries;
  - (ii) Make suggestions to the Commodity Council for modifications (e.g. suggest modifications in quota allocations, as suggested by Mr. Goreux in paragraphs 8 and 18 of his draft of Part II);
  - (iii) Help member countries to meet their financial obligations towards the agreement (as e.g. lending them their share of the initial costs of a buffer stock, suggested in Alternative II(b) of page 12.)
  - (iv) Finance the commodity agency directly (as suggested in Alternative I(b) of page 11 or Alternative II(a) of page 12);
  - (v) Finance diversification projects in a country, which curtails its production of a surplus commodity under the provisions of an agreement (Alternative II of page 4, and paragraph 9 of Mr. Goreux\*s draft); and

(vi) Refrain from financing investments in surplus commodities which might upset the working of the agreement in which the country participates, and thus cooperate in enforcing such agreements, (suggested in paragraph 13 of Mr. Goreux's draft, and in IFC paper IFC/FPC67-1, Attachment, paragraphs 19 and 21(c);

(vii) Administer diversification funds set up under agreements (as suggested in paragraph 18 of Mr. Goreux's draft, and in paragraphs 13 and 14 of enclosed draft.)

Case II raises more complex issues such as the following:

- (a) Should the Bank Group make additional loans to countries on condition they withdraw factors of production from commodities in surplus, even if there is no agreement covering these commodities, (as suggested in Alternative I of page 5; a position criticized by Mr. Goreux in paragraph 9);
- (b) What should be the policy towards investments in 'surplus' commodities not covered by commodity agreements.

These questions may be approached from two points of view, which may be described as the international effects point of view and the long run point of view. The international effects point of view has been advocated by Mr. Goreux in his draft. It is Alternative I of page 4. According to this point of view, the Bank's investments for commodity production in any country should take account of the net effects on the less-developed countries as a group. The "possible adverse effect on existing producers" was also included as one of the considerations to be taken into account by IFC (FPC 67-1, paragraph 20); Mr. Goreux would only consider less-developed countries, and take account of the interests of both producers and consumers, in these countries.

The international effects approach might affect the Bank's lending policy in two ways. It might lead to the Bank's lending to a country for a project, which generates net benefits to other developing countries as a group, even in cases where the project does not yield the country itself an adequate rate of return. It might also lead to the Bank's denying assistance to a country for a project, which yields that country a high rate of return, because it leads to net disadvantages to other developing countries as a group. In these cases, therefore, the Bank would be using all its influence with an individual developing country to force it to sacrifice its own national interest for the advantage of others.

I personally feel that the Bank is not justified in adopting the international effects approach, for a number of reasons.

(1) The concept of net advantages to the developing countries as a group is not clear. It is always possible to make estimates of net monetary benefits, under simplified assumptions, but impossible to reduce all the objectives of national development policies to any such simple measurement.

- (2) The Bank would not be justified in imposing a sacrifice on any one developing country for the sake of other developing countries, if it cannot protect this country from damage as a result of the actions of other developing countries. To be able to give such protection requires the sanctions attached to World Government, or in any case, to a much wider contract among nations than underlies our charter at present.
- (3) Insofar as the loan to a country is granted on the basis of the benefits accruing to other countries, the country would not be able to utilize these benefits in arranging repayment of these loans.
- (4) When the Bank denies a loan to a country because of the possible damage to other countries, this by itself would not prevent a country from going ahead with the investment with alternative resources. In order to exert stronger pressure on a country, the Bank would have to prohibit such investment as a condition for any loan which itmakes as recommended to other creditors.

Especially in the field of primary commodity trade, there is the real dilemma that the interests of individual countries do not coincide with the group. This is the problem behind the failure of these countries to negotiate mutually satisfactory commodity trade agreements. To solve this problem by adopting the international effects approach is simply to substitute external pressure on the countries - and I do not see that the Bank has that leverage, or if it does that it would be justified in using it in this way.

In place of such an international effects approach, I believe that there is an alternative approach more consistent with the Bank's role. I call it briefly the long run point of view, but it is more than that.

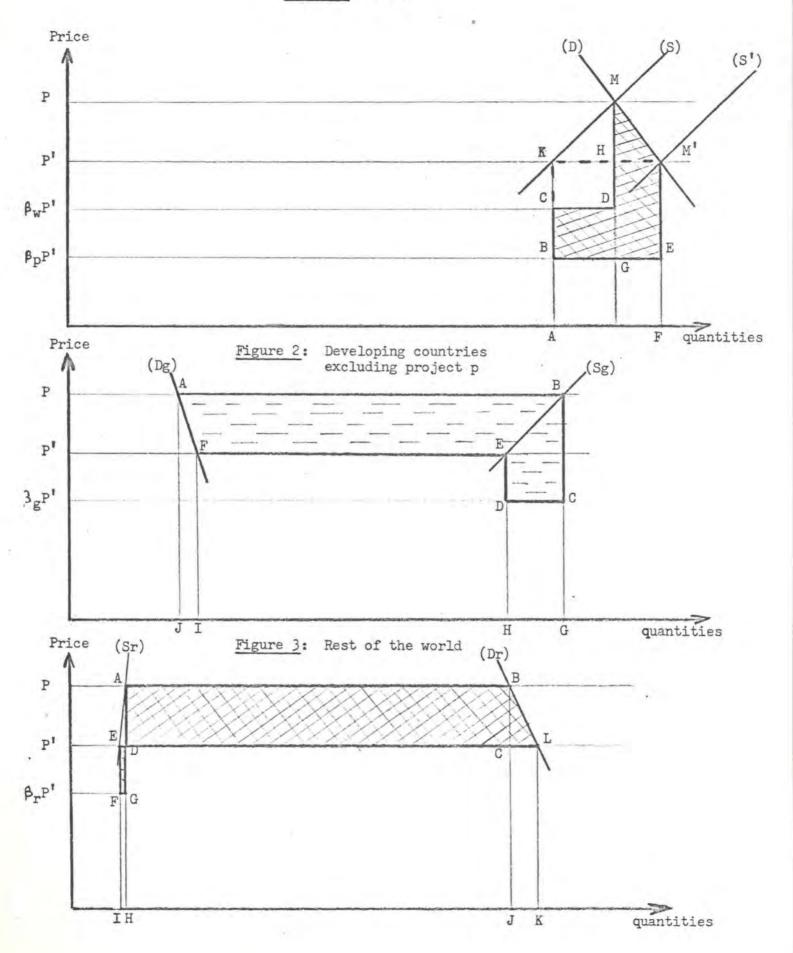
I believe that in dealing with an individual country, the Bank should be guided by the effect on that country and by that country's ability to meet the obligations imposed by the Bank's assistance. But in estimating these effects on a country, we should take a really long-run point of view. In estimating such long-run effects, I believe that the Bank is justified in making the basic assumption that the international environment surrounding any country's development efforts will improve steadily, partly because the Bank and its member countries are pledged to provide such improvement. In the field of primary commodity trade, this follows from the sort of Bank undertakings listed above under Case I. When such a basic assumption is made to estimate long-run effects on an individual, I believe that we are introducing a more effective way of resolving the short-term conflicts of interests, especially by making international agreements more feasible.

A concrete illustration of the difference in the two approaches is the case of investments for a commodity by a new and efficient producer, which might damage the interests of an older but less efficient producer. In the international effects approach, full weight would have to be given to the loss imposed on the older established producer. In the long-run point of view, investment by the new producers may be justified because long-run evolution of the international economy is likely to eliminate the older producers anyway.

#### COMMODITY POLICY PAPER

- (1) <u>Diversification</u> as deliberate aim to bring about conditions of reducing oversupply of commodity and eliminating producers with poor long-run competitive outlook - include eradication if desirable - willing to manage special diversification funds or act as advisors, if requested.
- (2) Ignore competitive positions of efficient producers with margins of profit giving basis for savings needed for development expenditures - part of development strategy of creating more savings and funnelling them into productive investment.
- (3) Approach (1) and (2) on "international" basis go beyond present concern with larger-run commodity price outlook not enough to see effects on one country (the borrower) also on others Indonesia a major example because a major producer of a number of tropical agricultural products.
- (4) Finance research with new user.
- (5) Support commodity agreements with technical information and advice on quotas and production controls - to see that national policies and measures fit in with international agreements and domestic development programs.
- (6) Considering export credit facilities (UNCTAD study).
- (7) SFS would increase feasibility commodity agreement because help maintain development programs which are essential -- unsuccessful development programs means resources transferred by commodity agreements do not go into development -- but into current governmental expenditures -- never-ending process of poverty and uncertainity.

Figure 1: World



# OFFICE MEMORANDUM

TO: Mr. I. S. Friedman

DATE: July 18, 1968

FROM: Louis M. Goreux

SUBJECT: Assessment of the return to the LDC's as a group

The attached note outlines a simple method for assessing the impact of a project on the other developing countries and contains numerical illustrations.

Attachment:

#### RETURN TO THE LDC'S AS A GROUP

### 1. THE PROBLEM

If the implementation of project p depends on the Bank's decision to finance it, the consideration of the impact of project p on country A's trading partners is relevant to the Bank's decision. However, if project p would have been implemented even if the Bank had decided not to finance it, this consideration would be irrelevant. The latter situation may occur particularly when project p is one of the most profitable to country A. Thus by financing project p, the Bank may make possible the implementation of another project p', which may not be identifiable. The relevance of the considerations below to the Bank's loan policy is therefore limited to the former case when the implementation of the project may depend on the Bank's decision to finance it.

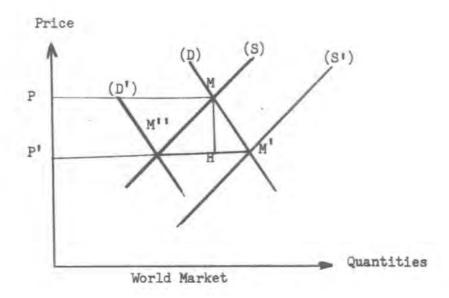
The method used for assessing the impact of the project on the various countries or country groups can be illustrated graphically. Without project p, the equilibrium point M would be at the intersection of the projected schedules of the world import demand (D) and of the world export supply (S). With project p, the supply schedule is shifted to the right from (S) to (S'); the new equilibrium point being M' with M''M'equal to the quantity exported from project p. Alternatively, if the project resulted in a reduction of country A's imports equal to M''M', the new equilibrium point M'' would correspond to the intersection of the same export supply schedule (S) with a new import demand schedule (D') derived by shifting (D) towards the left by a quantity equal to M'M''. If the price elasticities of the demand and supply schedules are both finite, the implementation of project p will induce a price decline from P to P'. If the elasticities are both finite as well as different from zero, the project will

<sup>1/</sup> see page 2. (graph)

displace exports which would have otherwise been produced ( $M^{\dagger\dagger}$  H) and increase imports into countries other than A ( $HM^{\dagger}$ ) such as  $M^{\dagger\dagger}H + HM^{\dagger} = M^{\dagger\dagger}M^{\dagger}$ .

The impact of the project on the various countries or group of countries is measured in two stages. In the first stage, only the direct impact on the balance of payments of the trading countries is considered. In the second stage, the consumers' surplus as well as the opportunity cost of the resources released by the displaced exports and the opportunity costs of the resources used in project p are also considered.

The algebraic model is presented in section two. The reader not interested in the algebra may go directly to section three giving numerical illustrations and a graphical interpretation.



### 2. ALGEBRAIC MODEL

### Variables

- Q = Quantities traded without project (net exports (+), net imports (-))
- Q' = Quantities traded with project (" "
- P = World price without project
- P' = World price with project
- V=QP Value of trade without project (net exports (+), net imports (-))
- V'=Q'P' Value of trade with project (" "
- ΔV=V'-V Difference in values traded due to project
- ∆V\*=∆V + consumer surplus + opportunity cost of resources released - opportunity cost of additional resources used.
  - a = share of country or country group in world trade (net exports (+), net imports (-).
  - 7 = price elasticity of quantity traded at price P
  - β = opportunity cost per unit traded as a fraction of world price P'

## Subscripts

- refers to exports
- to imports
- to the country
- " to project p
- to developing countries as a group excluding the project p
- " " including " " p 17
- " to the rest of the world (world minus developing countries)
- to the world to the country where the project is located

#### Shares a

- $d_{xi} = \frac{Q_{xi}}{Q_x}$  = share of country i gross exports in total world exports (+)
- $\alpha_{mi} = \frac{Q_{mi}}{Q_{x}}$  = share of country i gross imports in total world imports (-)

$$\alpha_{xg} = \frac{Q_{xg}}{Qx} = \sum_{i}^{g} \alpha_{xi}$$
 = share of the gross exports of the developing countries as a group in world gross exports (+)

$$\alpha_{xr} = \frac{Q_{xr}}{Qx} = \sum_{i}^{r} \alpha_{xi}$$
 = share of the gross exports of the rest of the world in world gross exports (+)

$$\alpha_{xg} + \alpha_{xr} = \sum_{i} \alpha_{xi} = 1.0$$

$$Q_i = Q_{xi} + Q_{mi} = \frac{Q_i}{Q_x} = \frac{Q_{xi} + Q_{mi}}{Q_x} = Net trade of country i as a fraction of world gross exports (+ net exports, - net imports)$$

 $Q_g = \sum_{i=1}^{g} q_i$  = Net trade of the developing countries as a group as a fraction of world gross exports (+ net exports, - net imports)

$$\alpha_g + \alpha_r = \sum_{i=1}^{g} \alpha_i + \sum_{i=1}^{r} \alpha_i = \sum_{i=1}^{r} \alpha_i^* = 0$$

Qp = Qx = Share of quantities exported from project p in relation to world gross exports without project (+); Q may refer to increased exports from country A or reduced imports of country A.

# Elasticities

The value  $\eta$  refers to the point elasticity at price P without project. Within the small range P, P+ $\Delta$ P the relation between  $\Delta$ Q and  $\Delta$ P is assumed to be linear; the demand and supply function do therefore imply a small modification in the value of the elasticities from P to P+ $\Delta$ P.

 $\eta_{xi}$  = Price elasticity of the gross export supply from country i (usually positive).

 $\eta_{\text{mi}}$  = Price elasticity of the gross import demand in country i (usually negative)

 $<sup>1/\</sup>sum_{i=1}^{g} \alpha_{xi}$  means summation of  $\alpha_{xi}$  for all i belonging to the developing countries group g;  $\sum_{i=1}^{r} \alpha_{xi}$  means summation of  $\alpha_{xi}$  for all i belonging to the rest of the world group r;  $\sum_{i=1}^{r} \alpha_{xi}$  means summation for all i.

$$\eta_{xg} = \frac{1}{\alpha_{xg}} \sum_{i}^{g} \alpha_{xi} \eta_{xi} =$$
Weighted average of the price elasticity of the gross export supplies from all developing countries (+)

$$\eta_{\text{mg}} = \frac{1}{\eta_{\text{mg}}} \sum_{i=1}^{g} \eta_{\text{mi}} \eta_{\text{mi}} = \text{Weighted average of the price elasticity of the gross import demand into all developing countries (-)}$$

$$\eta_{xr} = \frac{1}{N_{xr}} \sum_{i=1}^{r} \alpha_{xi} \eta_{xi} =$$
Price elasticity of gross exports from the rest of the world (+)

$$\eta_{mr} = \frac{1}{\alpha_{mr}} \sum_{i=1}^{r} \alpha_{mi} \, \eta_{mi} =$$
Price elasticity of gross import demand into the rest of the world (-)

$$\eta_x = \alpha_{xg} \eta_{xg} + \alpha_{xr} \eta_{xr} = Price elasticity of world export supplies (+)$$

$$\eta_m = -\alpha_{mg} \eta_{mg} - \alpha_{mr} \eta_{mr} =$$
Price elasticity of world import demand (-)  $\eta = \eta_r - \eta_m$ 

# Opportunity costs as fraction of world price P

- βp = Opportunity cost per unit of quantities exported from project p expressed as a fraction of price P.
- β<sub>i</sub> = Savings resulting from the opportunity cost of the resources released in country i by reducing quantities exported by one unit expressed as a fraction of price P'.

$$\beta_g = \frac{1}{\eta_{xg} \alpha_{xg}} \sum_{i=1}^{g} \eta_{xi} \alpha_{xi} \beta_i$$
 = Average opportunity cost of the resources released in all developing countries as a result of the reduction in exports induced by the project.

$$\beta_r = \frac{1}{\eta_{xr}\alpha_{xr}} \sum_{i=1}^{r} \eta_{xi} \alpha_{xi} \beta_i = \text{Ibidem for the rest of the world.}$$

$$\beta_w = \frac{1}{\eta_x} \sum_i \eta_{xi} \alpha_{xi} \beta_i = \text{Ibidem for the world.}$$

# Gains or losses

The general formula, given in table 1, is illustrated in figures 1, 2 and 3 for a commodity for which the LDC's have a net export surplus.

Table 2 provides the graphical interpretation of the formula.

# 3. NUMERICAL ILLUSTRATIONS AND GRAPHICAL INTERPRETATION

It is convenient to interpret graphically the model presented in the previous section and to illustrate with numerical examples the sensitivity of the findings to the assumptions made. This will be done first for a commodity such as tea, where the LDC's export approximately 4.5 times more than they import.

# 3.1 Basic data (table 3)

# Share of imports and exports

The import and export shares of the different country groups shown in columns 1, 2 and 3 of table 3 correspond approximately to the situation for tea. LDC's gross imports account for 20 percent of world imports. The two segments PA in figures 2 and 3 referring to the LDC's and to the rest of the world respectively are therefore equal to one-fifth and four-fifths of segment PM in figure 1 referring to the world. Similarly, since LDC's gross exports account for 90 percent of world exports, the two segments PB in figures 2 and 3 for the LDC's and the rest of the world respectively are equal to nine-tenths and one-tenth of PM in figure 1. Since these shares can usually be projected accurately, a single assumption was made in table 3. In the numerical exercises, it was further assumed that project p is located in a minor exporting country which, without the project, would account for only 3 percent of world exports.

# Price elasticity of import demand and export supplies

Within the small price range P to P', the response to price changes is assumed to be linear. This response is characterized by the value of the elasticity at price P. Three different sets of assumptions were made regarding the values of these elasticities. In all cases the supply elasticity was taken as larger than the demand elasticity; this is shown by the slopes of (S) and (D) in figures 1, 2 and 3.

# Scale of the project

In assumptions II, III, IV and V the additional export from the project was taken as one percent of what world exports would have been without the project. However, to facilitate the graphical presentation, this percentage was raised from one to 20 percent in assumption I. As appears from table 4, multiplying by 20 does not greatly affect the ratio between the various rates of return, and therefore the ratio between the shaded areas in figures 1 to 3.

# Opportunity cost of production

The production of tropical commodities is generally a labor-intensive activity in areas where underemployment is a serious problem. The opportunity cost was therefore assumed to be always lower than the market price P'. The opportunity cost was also assumed to be lower for the project output than for the production displaced by the project. For project p, it was taken as 50 percent of the market price P' in assumptions I to IV and 30 percent of the price in assumption V (see col.6 table 3).

# 3.2 The impact of the project

When supply and demand responses to price change are not infinite, as is generally the case, the project results in a price decline  $\Delta P$  such as:

$$\frac{\Delta P}{P} = -\frac{\aleph p}{\eta_{X} - \eta_{m}} = -\frac{\text{share of the project in world exports}}{\text{sum of world price elasticities of demand} \frac{1}{2} / \frac{1}{2} = -\frac{1}{2} \frac{1}{2} + \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} + \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} + \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} = -\frac{1}{2} \frac{1}{2} \frac{1}{$$

When the responses to prices are neither infinite nor nil, the quantity exported from the project  $\overline{KM}^{\dagger}$  (figure 1) results in a displacement of exports which would have otherwise taken place  $\overline{HK}$  and in a net addition to world trade  $\overline{HM}^{\dagger} = \overline{HK} + \overline{KM}^{\dagger}$  such as:

<sup>1/</sup> Absolute value of the demand elasticity. The sum  $\eta$  is therefore always positive.

Each country or group of countries trading the commodity is affected to some extent by the price decline resulting from the implementation of project p. The gains (or losses) are shown in an algebraic form in table 1. To facilitate the interpretation, table 2 indicates the areas in figures 1, 2 and 3 corresponding to the various terms of these formulas in table 1. Table 4 shows the numerical values of the gains (or losses) of the different groups corresponding to the five assumptions made in table 3. The discussion below will be limited to the total return shown in col. II of tables 1 and 2 and will be centered on two comparisons.

The first concerns the difference between the return to the project and to country A on the one hand, and the return to the world as a whole on the other. The second concerns the difference between the return to country A on the one hand, and the return to all LDC's and to the rest of the world on the other.

# Return to country A and to the world as a whole (figure 1)

If resources are valued at their opportunity cost, the return to the project corresponds to the area of the rectangle KM' EB and the world return to the shaded area (M M' E B C D) in figure 1. In all the assumptions used, the former is somewhat higher than the latter due to the fact that the consumers' surplus (M M' H) is smaller than the loss of the displaced producers (K H D C). If the opportunity cost of the displaced production is close to the market price P', the difference between the project return and the world return is small. However, if due to a labor surplus the opportunity cost of the displaced production is substantially lower than the market price, the project return may be substantially higher than the world return, particularly if the price elasticity is greater for supply than for demand.

If country A is a minor exporter, as assumed here, the loss incurred by producers in country A outside project p is comparatively small. The net return

to country A is then only marginally lower than the project return and is always above the world return. This was the case in the numerical examples selected, lines (1) and (5) in table 4.

Return to the LDC's and to the rest of the world (figs. 2 and 3)

The loss of LDC's, excluding project p, is shown in figure 2 by the shaded area ABCDEF. The magnitude of this loss depends basically on the size of the LDC's net export surplus (A B) and of the amplitude of the price decline (A K). In all the assumptions made (I to V) the loss of the developing countries other than A more than offset country A's gain. The break-even point would correspond to price elasticities equal to unity for world supply and -.4 for world demand, and to an opportunity cost two and a half times higher for the displaced production than for the project.

The gain of the rest of the world is shown in figure 3 by the shaded area A B C L minus the small rectangle C E F G. In assumptions I to IV, this gain exceeds both the gain of the project and the gain of country A. For commodities exclusively exported from the LDC's and exclusively imported by the rest of the world, the net return to the rest of the world would be very slightly higher than the gross project return divided by the sum of the demand and supply elasticities. When these elasticities are not too high, promoting the production of such commodities through grants would be a very favorable economic proposition for the importers taken as a group. 2/

$$\Delta V_{\mathbf{r}}^{\#} = \Delta V_{\mathbf{p}} \left( \frac{1}{\eta - \kappa_{\mathbf{p}}} + \frac{-\eta_{\mathbf{m}}}{\eta} \frac{\kappa_{\mathbf{p}}}{2(\eta - \kappa_{\mathbf{p}})} \right) \frac{1}{\eta} \Delta V_{\mathbf{p}}$$

<sup>1/</sup> The formula given in line 4 col. II of table I can then be written:

<sup>2/</sup> With a capital-output ratio equal to three and one-third of the total investment covered by a grant in convertible currencies, the return to the grant would be equal to 50 percent a year for η=2 and 100 percent a year for η=1.

The analysis above has been limited to commodity Y for which the LDC's have a net export surplus. For commodity Z which does not enter international trade channels, country A's return would be identical to the world return and the countries other than A would not be affected by the implementation of project p. For commodity X, for which the LDC's have a net import deficit, the position of the LDC's vis-a-vis the rest of the world is basically the opposite of what it was in the case of commodity Y. In a graphical representation, the gain of the LDC's excluding project p would correspond to figure 3 and the loss of the rest of the world to figure 2. The two situations are not, however, completely symmetrical. For commodities X the LDC's generally account for substantially less than half of the world imports, while for commodities Y the rest of the world generally accounts for the major part of world imports. The difference between the market price P' and the opportunity cost of production in developing countries is generally lower in the case of X than in that of Y. Furthermore, the price elasticity on the world market may be higher for X than for Y. These particular differences were taken into account in table 5 which shows the assumptions for commodity X, such as pulp and paper. To facilitate the comparison, it has been assumed that, as in the case of Y (table 3), country A and the exports generated by project p account for 3 and 1 percent of gross world exports respectively. The returns to the various groups of countries are shown in table 6 which follows the nomenclature used in table 4.

Table 7 provides a summary of the impact of project p on the various groups of countries for commodities Y, Z and X. The impact is expressed in relation to the project return. For simplicity, the table shows only the range of the values obtained in the various numerical examples. The world return is in all cases lower than the project return, the difference being generally greater for Y commodities than for X commodities. The return to all LDC's is negative for commodities Y, equal to country A's return for commodities Z and larger than country A's return for commodities X.

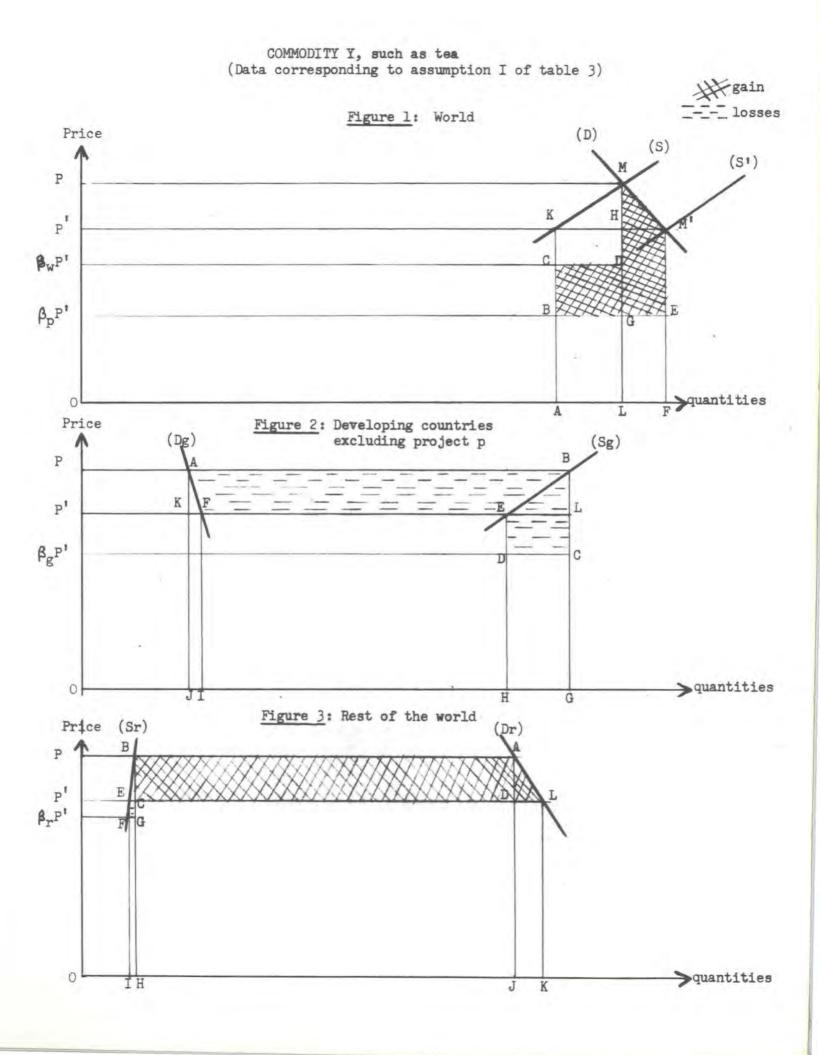


Table 1

Direct and Indirect Impact of Project p on Trading Partners

	I = Balance of payment gain (direct impact)	II = I + Consumer surplus + Savings due to opportunit cost of released resources - opportunity cost of additional resources used in project p
(1) Project (p)	$\Delta \nabla_{\mathbf{p}} = Q_{\mathbf{p}}^{\prime} \mathbf{P}^{\prime} = \mathbf{Q}_{\mathbf{p}} (1 - \frac{\mathbf{Q}_{\mathbf{p}}}{\eta}) \nabla_{\mathbf{x}}$	$\Delta V_{\rm p}^* = \Delta V_{\rm p} (1 - \beta_{\rm p})$
(2) Country (i) without project	$\frac{\Delta v_i}{\Delta v_p} = -\frac{\alpha_i}{\eta - \alpha_p} - \alpha_{xi} \frac{\eta_{xi}}{\eta} - \alpha_{mi} \frac{\eta_{mi}}{\eta}$	$\frac{\Delta V_{1}^{*}}{\Delta V_{p}} = -\frac{\alpha_{1}}{\eta - \alpha_{p}} - \alpha_{xi}(1 - \beta_{i}) \frac{\eta_{xi}}{\eta} + \alpha_{mi} \frac{\eta_{mi}}{\eta} \frac{\alpha_{p}}{2(\eta - \alpha_{p})}$
All developing countries (g) excluding project p	$\frac{\Delta \nabla_{g}}{\Delta \nabla_{p}} = -\frac{\alpha_{g}}{\eta - \alpha_{p}} - \alpha_{xg} \frac{\eta_{xg}}{\eta} - \alpha_{mg} \frac{\eta_{mg}}{\eta}$	$\frac{\Delta V_g^*}{\Delta V_p} = -\frac{\alpha_g}{\eta - \omega_p} - \alpha_{xg}(1 - \beta_g) \frac{\eta_{xg}}{\eta} + \alpha_{mg} \frac{\eta_{mg}}{\eta} \frac{\alpha_p}{2(\eta - \alpha_p)}$
4) Rest of the world (r)	$\frac{\Delta \nabla_{\mathbf{r}}}{\Delta \nabla_{\mathbf{p}}} = -\frac{\alpha_{\mathbf{r}}}{\eta - \alpha_{\mathbf{p}}} - \alpha_{\mathbf{xr}} \frac{\eta_{\mathbf{xr}}}{\eta} - \alpha_{\mathbf{mr}} \frac{\eta_{\mathbf{mr}}}{\eta}$	$\frac{\Delta V_{\mathbf{r}}^*}{\Delta V_{\mathbf{p}}} = -\frac{\alpha_{\mathbf{r}}}{\eta - \alpha_{\mathbf{p}}} - \alpha_{\mathbf{x}\mathbf{r}}(1 - \beta_{\mathbf{r}}) \frac{\eta_{\mathbf{x}\mathbf{r}}}{\eta} + \alpha_{\mathbf{m}\mathbf{r}} \frac{\eta_{\mathbf{m}\mathbf{r}}}{\eta} \frac{\alpha_{\mathbf{p}}}{2(\eta - \alpha_{\mathbf{p}})}$
5) World total (w) (5) = (1) + (3) + (4)	ΔV <sub>W</sub> = O	$\frac{\Delta V_{\mathbf{w}}^{*}}{\Delta V_{\mathbf{p}}} = \frac{\eta_{\mathbf{x}}}{\eta} \left( \beta_{\mathbf{w}} - \beta_{\mathbf{p}} \right) - \frac{\eta_{\mathbf{m}}}{\eta} \left[ (1 - \beta_{\mathbf{p}}) + \frac{\alpha_{\mathbf{p}}}{2(\eta - \alpha_{\mathbf{p}})} \right]$

# Table 2: GRAPHICAL INTERPRETATION OF THE FORMULA. AREAS ON FIGS.1,2 AND 3 CORRESPONDING TO THE VARIOUS TERMS OF THE EQUATIONS SHOW! IN TABLE 1 $\alpha_{\rm g} > 0 \qquad \beta_{\rm p} < \beta_{\rm w} < 1$

			I = Balance of pay (direct imp		II=I+ consumer surplus + savings due opportunity cost of released resources - opportunity cost of resources used in project p.							
		Price decline P-P' multiplied by the original net trade balance	Decline in the quantum of gross exports valued at price P'	Increase in the quantum of gross imports valued at price P'	1	Price decline P-P' multiplied by the pripinal net trade balance	Decline in the quantum of gross imports valued at the difference be- tween world prices and opportunity cost (1- )P	Consumers surplus valued at the dif- ference between marginal import value and world price				
(1) Project p	ΔV <sub>p</sub> = fig.1	$\alpha_{p} \left(1 - \frac{\alpha_{p}}{1}\right) v_{x} + (AKM^{T}F)$				$= (1 - \beta_p) \Delta v_p$ $1 + (BKM^TE)$						
(3) All LDCs excl project p.		$-\frac{\alpha_g}{\eta - \alpha_p} \Delta v_p$	$-\alpha_{xg} \frac{\eta_{xg}}{\eta} \Delta v_p$			$=\frac{\kappa_{\rm g}}{\eta-\kappa_{\rm p}}\Delta V_{\rm p}$	$-\alpha_{xg}(1-\beta_g)\frac{\alpha_{xg}}{\eta}\Delta V_p$	$+ \alpha_{\text{mg}} \frac{\eta}{N_{\text{mg}}} \frac{3(M-M^{2})}{N_{\text{p}}} \Delta_{M}$				
	fig.2		-(E L G H)	-(K F I J)	fig.	2 -(A B L K)	-( E L C D)	+( A K F)				
(4) Rest of the world	ΔV <sub>r</sub> =	$-\frac{\sqrt{-\alpha^b}}{\sqrt{8}}\nabla \Delta^b$	-M <sub>xr</sub> $\frac{q_{xr}}{q}$ $\Delta V_p$	$-\kappa_{mr} \frac{\eta_{mr}}{\eta} \Delta V_{p}$	ΔV <sub>r</sub>	$= -\frac{\kappa_r}{\eta - \alpha_p} \Delta V_p$	$-\alpha_{xr} (1 - \beta_r) \frac{\eta_{xr}}{\eta} \Delta V_p$	$+\alpha_{mr} \frac{\eta_{mr}}{\eta} \frac{\alpha_p}{2(\eta - \alpha_p)} \Delta$				
	fig.3	+(A B C D)	-(E C H I)	-(D L K J)	fig.	3 +(A 9 C D)	-(E C G F)	+(A D L)				
(5) World (5)=(1)+ (3)+(4)	Va =	0.0			ΔV <sub>w</sub>		$(\beta_{w} - \beta_{p})^{\frac{\eta_{x}}{\eta}} \Delta V_{p}$ +(BCDG)	$-\underbrace{\int (1-\beta_{p}) + \frac{\alpha_{p}}{2(\eta - \alpha_{p})} \underbrace{\eta}_{+(\beta \text{ M M I } \mathbf{E})} \frac{\eta}{2(\eta - \alpha_{p})}$				

Table 3: Commodity Y1: Shares in world trade and alternative sets of assumptions regarding price elasticities and opportunity costs

	Shares			Assumption I			Ass	Assumption II			Assumption III			Assumption IV			Assumption V		
	<b>Ø</b> xi.	<b>⋈</b> mi	a <sub>i</sub> (a <sub>xi</sub> +a <sub>mi</sub>	7x1	ticity //mi	Opp. cost Pi	1 <sub>xi</sub>	M mi.	$\beta_{\rm i}$	Ŋxi	ηmi	$\beta_{i}$	η <sub>xi</sub>	7 mi	ρį	M <sub>xi</sub>	$\eta_{mi}$	βi	
	(1)	(2)	(3)	(4)	(5)	(6)	(4)	(5)	(6)	(4)	(5)	(6)	(4)	(5)	(6)	(4)	(5)	(6)	
Country A	+ .03	.0	+ .03	+ .7		+ .5	+ .7		+ .5	+ .6		+ .5	+1.2		+ .5	+1.2		+ .3	
Other LDC's	+ .87	20	+ .67	+ .6	6	+ ,8	+ .6	6	+ .8	+ .5	5	+ .8	+1.0	6	+ .8	+1.0	6	+ .5	
Rest of World	+ .10	80	70	+ .5	3	+ .9	+ .5	3	+ .9	+ .4	2	+ .9	+ .8	3	+ .9	+ .8	3	+ .7	
World	+1.00	-1.00	•0	+ •59	36	+ ,80	+ .59	36	+ .80	+ .49	26	+ .80	+ .99	36	+ .80	+ .99	36	+ .5	
Project			+ .01			+ .5			+ .5			+ .5			+ .5			+ .3	

N.B.: See symbols pages 3 to 5 and formula on table 1.

<sup>1/</sup> Such as tea.

<sup>2/</sup> Assumption I identical to assumption II with the exception of ₹p=.2 for I instead of +.01 for II.

Table 4: GAINS (+) OR LOSSES(-), ASSUMPTIONS SPECIFIED IN TABLE 3

			otion I .1,2,3)	Asaump	tion II	Assumpt	ion III	Assump	tion IV	Assum	ption ∇
		ΔVi	ΔV <sub>i</sub> *	ΔV <sub>1</sub>	ΔV <sub>i</sub> *	ΔVi	∆V*	ΔVi	<b>∆</b> V*	ΔVį	ΔV <sub>i</sub> *
(p)	Project	+1580.3	+ 790.1	+ 99.0	+49.5	+ 98.7	+ 49.3	+ 99.3	+49.6	+ 99.3	+69.5
(a)	Country A excl. p	- 97.8	- 80.4	- 5.3	- 4.2	- 6.3	- 5.2	- 4.9	- 3.6	- 4.9	- 4.1
(ap)	Country A incl. p (ap)=(a)*(p)	+1482.5	+ 709.7	+ 93.7	+45.3	* 92.4	+ 114.1	+ 94.4	+46.0	+ 94.4	+65.4
(o)	LDC's excl. A	-2470.7	-1552.8	-137.0	-81.1	-159.1	-100.3	-122.8	-62.6	-122.8	-81.8
(oap)	LDC's incl. Ap (oap)=(o)+(ap)	- 988.2	- 843.1	- 43.3	-35.8	- 66.7	- 56.2	- 28,4	-16.6	- 28.4	-16.4
(r)	Rest of the world	+ 988,2	+1513.6	+ 43.3	+73.1	+ 66.7	+ 92.6	+ 28.4	+51.5	+ 28.4	+50.3
(w)	World (w)=(oap)+(r)	0.0	+ 670.6	0.0	+37.3	0.0	+ 36.4	0.0	+34.9	0.0	+33.9
(1)	$\Delta V_{ap}^*/\Delta V_{p}^*$		+ 0.90		+ 0.91		+ 0.90		+ 0.93		+ 0.91
(2)	$\Delta V_{\mathbf{w}}^{*} / \Delta V_{\mathbf{p}}^{*}$		+ 0.85		+ 0.75		+ 0.74		+ 0.71		+ 0.49
(3)	ΔV* oap/ΔV*		- 1.07		- 0.72		- 1.14		- 0.33		- 0.21
(4)	$\Delta V_{\mathbf{r}}^{*}/\Delta V_{\mathbf{p}}^{*}$		+ 1.92		+ 1.48		+ 1.88		+ 1.04		+ 0.72
(5)	$\Delta V_{\rm ap}^*/\Delta V_{\rm w}^*$		+ 1.06		+ 1.22		+ 1.21		+ 1.32		+ 1.93

Table 5: Commodity X ! Shares in world trade and alternative sets of assumptions regarding price elasticities and opportunity costs

					As	sumption	I	A	Assumption I Assumption II					Assumption IV			
			Shares		Shares		Elasticity Opp.										
		≪ <sub>xd</sub>	∝ <sub>mi</sub>	(X <sub>i</sub> (X <sub>xi</sub> +η <sub>mi</sub> )	ηxi	nmi	cost β1	η <sub>xi</sub>	η <sub>mi</sub>	βi	Иxi	η <sub>mi</sub>	βi	1 <sub>xi</sub> 1 <sub>mi</sub>	Øi.		
		(1)	(2)	(3)	(4)	(5)	(6)	(4)	(5)	(6)	(4)	(5)	(6)	(4)	(5)	(6)	
A	Country A	+ .03	.0	+ .03	+ .4	- x	+ .7	+.4		+.7	+.8		+.7	+.8		+.7	
0	Other LDC's	+ .02	20	18	+4	4	+ .9	+.4	8	+.9	+.8	4	+.9	•.8	8	+.9	
R	Rest of world	+ .95	80	+ .15	+ .4	4	+ .8	+.4	8	+.8	+.8	4	+.8	+.8	8	+.8	
W	World	+1.00	-1.00	.0	+ .4	4	+ .80	+.4	8	+.80	+.8	4	+.80	+.8	+.8	+.80	
P	Project			+ .01			+ .6			+.6			+.6			+.6	
					Ass	sumption	ı V	A	ssumpti	on VI	As	sumption	n VII				
4	Country A				+ .8		+ .7	+.8		+.8	+1.2		+.8				
0	Other LDC's	1			+ .8	-1.4	+ .9	+,8	-1.4	+.9	+1.2	-1.4	+.9				
2	Rest of world				+ .8	-1.4	+ .8	+.8	-1.4	+.8	+1.2	-1.4	+.8				
N	World				+ .8	-1.4	+ .80	+.8	-1.4	+.80	+1.2	-1.4	+.80				
P	Project					7.04	+ .6		-4.4	+.8		2.44	+.8				

<sup>1/</sup> Such as pulp and paper

Table 6: GAINS (+) OR LOSSES (-), ASSUMPTIONS SPECIFIED IN TABLE 3

		Assump	tion I	Assumpt	ion II	Assumption III		Assumption IV		Assumption V		Assumption VI		Assumption VI	
		ΔVi	ΔVį	ΔVi	ΔVį	ΔVi	∆V <sub>1</sub> *	ΔVi	ΔVi	ΔVi	ΔV <sub>1</sub> *	ΔVi	ΔVi	ΔVi	ΔΨ
(p)	Project	+ 98.8	+39.5	+99.2	+39.7	+ 99.2	+39.7	+99,4	+39.7	+99.5	+39.8	+99.5	+19.9	+99.6	+19.9
(a)	Country A excl. p	- 5.2	- 4.2	- 3.5	- 2.8	- 4.5	- 3.1	- 3.4	2.3	- 2.4	- 1.7	- 2.4	- 1.6	- 2.5	- 1.4
(ap)	Country A incl. p (ap)=(a)+(p)	+ 93.6	+35.3	+95.7	+36.9	+ 94.7	+36.6	+96.0	+37.4	+97.1	+38.1	+97.1	+18,3	+97.1	+18.5
(0)	LDC's excl. A	+ 11.6	+22.5	+ 1.1	+15.0	+ 7.1	+14.9	+ .3	+11.2	- 5.2	+ 8.2	- 5.2	+ 8,2	- 4.7	+ 6.8
(oap)	LDC's incl. Ap (oap)=(o)+(ap)	+105.2	+57.8	+96.8	+51.9	+101,8	+51.5	+96.3	+48.6	+91.9	+46.3	+91.9	+26.5	+92.4	+25.3
(r)	Rest of world	-105.2	-27.9	-96.8	-18.6	-101.8	-25.0	-96.3	-18.7	-91.9	-13.6	-91.9	-13.6	-92.4	-14.4
(w)	World (w)=(oap)+(r)	0.0	+29.9	0.0	+33.3	0.0	+26.5	0.0	+29.9	0.0	+32.7	0.0	+12.9	0.0	+10.9
(1)	$\Delta V_{ap}^* / \Delta V_{p}^*$		+ .89		+ .93		+ .92		+ .94		+ .96		+ •92		+ .93
(2)	ΔV*/ΔV*		+ .76		+ .84		+ .67		+ .75		+ .82		+ .65		+ .55
(3)	$\Delta V_{\text{oap}}^* / \Delta V_{\text{p}}^*$		+1.46		+1.31		+1.30		+1.22		+1.16		+1.33		+1.27
(4)	$\Delta V_{\mathbf{r}}^{*}/\Delta V_{\mathbf{p}}^{*}$		71		47		63		47		34		68		72
(5)	$\Delta V_{ap}^*/\Delta V_{w}^*$		+1.18		+1.11		+1.38		+1.25		+1.17		+1.42		+1,69

Table 7: SUMMARY OF THE NUMERICAL EXAMPLES

	COMMODITY												
		Y	1/	Z	X								
Country A	ΔV <sup>*</sup> <sub>ap</sub> ΔV <sup>*</sup> <sub>p</sub>	+ .90	+ .94	a<1	+ .89	+ .96							
World	$\frac{\Delta V_{\widetilde{\mathbf{p}}}^{*}}{\Delta V_{\widetilde{\mathbf{p}}}^{*}}$	+ •49	+ .75	a<1	+ •55	+ .84							
Developing countries other than A	$\frac{\Delta V_0^*}{\Delta V_D^*}$	-1.18	-2.03	0	+ .20	+ •57							
All LDC's	$\frac{\Delta V_{\text{oap}}^*}{\Delta V_{\text{p}}^*}$	-1.14	24	0	+1.16	+1.46							
Rest of the world	$\frac{\Delta V_{r}^{*}}{\Delta V_{p}^{*}}$	+ .72	+1.88	0	34	72							

<sup>1/</sup> excluding assumption I

#### FORM No. 75 (2-60)

### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE

INTERNATIONAL DEVELOPMENT ASSOCIATION

COM DIM LIDIE		WOODOLW I JON	
	ROUTING SLIP	Date July 10, 1968	
	NAME	ROOM NO.	
Mr. McNamara		1220	
V Mr. Friedman		1223	
M	r. Avramovic	1033	
Mr. Kamarck		800	
Mr. Sundrum		1036	
	To Handle	Note and File	
	Appropriate Disposition	Note and Return	
	Approval	Prepare Reply	
	Comment	Per Our Conversation	
	Full Report	Recommendation	
x	Information	Signature	
	Initial	Send On	





# INTERNATIONAL MONETARY FUND WASHINGTON, D. C. 20431

CABLE ADDRESS

#### MEMORANDUM

TO:

Mr. Friedman

July 17, 1968

FROM:

J. J. Polak

SUBJECT: Commodity Study -Part II

Please find attached a copy of our Part II as sent to the

Board today.

cc: Mr. Avramovic



### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

Cable Address - INDEVAS



1818 H Street, N.W., Washington, D. C., 20433, U.S.A.
Area Code 202 • Telephone - EXecutive 3:6350

Palais des Nations, Geneva

17 July, 1968

To:

FILES

From:

Federico Consolo

Subject: ECOSOC - 45th Session - Statement by Dr. Raul Prebisch

- 1. Dr. Raul Prebisch, Secretary General of UNCTAD, addressed the Plenary of this ECOSOC session on July 10. As usual, he did not speak from a prepared text.
- 2. He said he would first deal with UNCTAD II and then pass on to the global development strategy to be followed in the second Development Decade.
- 3. Many of the judgments passed on the UNCTAD II were exaggerated. It was true that, as he had stated in his report to the Secretary-General of the United Nations on the Conference, the results achieved had been very limited and incommensurate with the dimensions and urgency of the development problem. On the other hand, seeds had been sown which could prove important if they received the care that would enable them to germinate and bear fruit. He was referring in particular to the three questions which the Conference had left unsolved: preferences; the transfer from the developed to the developing countries of financial resources equivalent to one per cent of their gross national product; and supplementary financing.
- 4. Insofar as preferences were concerned, the Second Conference had taken a step forward by recognizing, for the first time, that the developing countries needed a system of preferences for their manufactures and semi-manufactures. It was a pity that it had not gone further and laid the basis for the application of such a system. Nevertheless, it had decided that the matter should be discussed further by the Trade and Development Board at its session in September 1969, when, it was hoped, a solution to the problem would be found.

- 5. Similarly, the decision that the transfer of financial resources should be based on one per cent of the gross national product rather than the gross national income of the developed countries represented progress; it would result in a 25 per cent increase in the volume of resources transferred to the developing countries. No decision had been taken concerning the year in which the policy would come into effect, but it was hoped that that matter, too, would be settled by the Trade and Development Board at its session in September 1969.
- 6. The Conference's attitude to the question of supplementary financing had been more negative than had been expected. Though the Bank staff had prepared an excellent study, at one time during the consideration of this item, there had even been talk of adopting a more retrograde course than that originally proposed by the Swedish and U.K. delegations at the UNCTAD I, but this move was neutralized. Fortunately, the resolution finally adopted on the subject constituted a small step forward and it was again hoped that the Board would bring the matter to fruition.
- 7. It would thus not be possible to assess the results of the Second Conference properly until after the September 1969 session of the Board. The seeds had been sown and all that was required was the political will to ensure that they bore fruit.
- 8. UNCTAD II had again demonstrated the unwieldiness of the UNCTAD machinery: the agenda had been impossibly heavy. There was a proliferation of simultaneous meetings (committees, working groups etc.). This problem of the UNCTAD machinery must be tackled now and, following on the Chilean, Indian and Swedish resolution, the Secretariat was considering proposals to make the machinery more effective; these proposals would be placed before the Trade and Development Board session in September 1968. Dr. Prebisch indicated that the machinery should be given the "negotiating" capacity it required. (I gather that this idea will be opposed by some developed countries, e.g. France).
- 9. Concern had been expressed at New Delhi over the fact that, owing to its overcrowded agenda, the Conference had been unable to tackle the question of a global development strategy. It was hoped, however, that that question would be further debated by the Trade and Development Board. The progress made in evolving a development strategy was apparent and the attempt to do so showed that ideas had advanced considerably since the beginning of the first Development Decade. It had, for instance, come to be realized that the development problem was common to both developed and developing countries. It had also come to be realized that a large part of the responsibility for solving development problems rested with the developing countries themselves. It was generally agreed, for instance, that they could not adopt modern technology until they had reformed their economic

and social structures, introduced new ideas concerning family responsibility and population growth and taken measures to promote social mobility and deal with income disparities. One of the basic lessons learnt from the first Development Decade was that the developing countries needed to agree on a policy which would lead to increased trade among themselves and to regional and sub-regional integration. Faster economic growth was not to be achieved solely through international cooperation. The best laid plans for international cooperation in trade and finance would come to nothing if the developing countries failed to adopt a vigorous policy of their own.

- 10. A successful development strategy meant recognition of the principle that the measures taken by the developed and developing countries must be convergent. UNCTAD had sought to gain greater access for the commodities of the developing countries to the markets of the industrialized countries, to establish a new preferential system and to stabilize commodity prices. Some progress had been made on those matters. But the tremendous problem of bridging the trade gap could not be solved through action by the industrialized countries alone. A very important part of the solution would have to be found in increased trade among the developing countries themselves.
- 11. How were the problems of internal reform and policy revision to be fitted into the concept of a global development strategy? The need for economic and social reform in the developing countries had been recognized and so had the need for a greater flow of finance to those countries: what had not been fully recognized was the link between the two needs. Economic and social reforms could not, of course, be imposed from outside or regulated by international decisions. But the basis for a policy of international financial and technical cooperation must be laid by the developing countries. Any increase in loans, whether multilateral or bilateral, should depend very closely on what a country was willing to do to vitalize its economic system.
- 12. The industrialized countries still did not realize that the most disruptive influence on a plan was usually external; the continuous price fluctuations to which the developing countries' products were subject could torpedo any plan. That was where a policy of supplementary financing could play a major role. It had been suggested at UNCTAD II that if agreement was reached on commodity price stabilization there would be no need for supplementary financing, but that was a mistaken idea. It was not possible to reach stabilization agreements for all commodities and where stabilization was possible it could not be absolute as was shown by the cocoa agreement. Supplementary financing was thus essential.
- 13. At the recent meeting of ACC, the Under Secretary-General for Economic and Social Affairs had explained what was being done to quantify objectives. The Department of Economic and Social Affairs had produced an econometric report which contained calculations on the

mobilization of the developing countries! domestic resources. the contributions required from the developed countries and the extent of the trade gap. The UNCTAD Secretariat had been working on similar lines. He referred in that connection to the comments of the Director-General of the Food and Agriculture Organization (FAO) on the world indicative plan. The calculations would make it possible, for the first time, to determine the actual size of the international effort required under the plan, both in trade - to expand exports from developing countries to developed countries and to other developing countries - and in financial assistance; one per cent of the gross national product would appear to be the requirement consistent with a growth rate of 6 - 60 per cent. While the progress thus made was considerable, much remained to be done. He hoped that the Committee on Development Planning would make good use of the valuable material already provided or being prepared by the United Nations and the specialized agencies in order to fix quantitative targets for States - though those targets were not to be regarded as commitments.

- 14. To indicate the extent of the measures needed to stimulate the growth rate was probably as much as could be done. Plans for feeding the population, or reducing mortality and illiteracy, while essential parts of national programmes, were perhaps out of place in international plans for regulating international cooperation and the flow of finance from developed to developing countries. It might not be profitable in the present circumstances to become involved in spheres where the problems should be dealt with primarily at the national level.
- 15. One point that should not be overlooked was that for planning and executing an international strategy permanent evaluation machinery would be needed to make an annual appraisal of what had been done, by both developing and developed countries. The value of a global strategy was that it covered all those involved and all aspects of the problem. The recent difficulties of some developed countries were national matters and irrelevant to international cooperation; they should not be allowed to make international strategy even more complicated than it already was or to divert attention from the problems of development.

In formulating and executing international strategy the important question to consider was how to make the best use of the machinery of the United Nations and the specialized agencies to obtain effective action. After twenty years of international bureaucracy, the question had to be asked: was the present system of proliferating organizations and meetings the best? He was not using the term "international bureaucracy" in any pejorative sense. During the past twenty years, the basic ideas on economic development had come not from the academic world but from the United Nations and its agencies; it was the international bureaucracy which had produced the new ideas which had led to the plan for a global development strategy. He hoped that it would not lose its initiative and imagination in the new Development Decade.

cc: President's Council

Mr. W. Clark

Mr. Kamarck

Mr. Karasz (Paris)

cc: ND DMD UN REP LEG RES EUR SEC

Mr. Lang

Mr. Fowler (IBRD)

JUL 9 1988

Dear Mr. Allen:

In really to your letter to Mr. Schweitzer of the 26th of June, enclosing a copy of your letter to Mr. McRanara on the some subject, I am grateful for your offer of cooperation in the preparation of the commodity study being undertaken by the Fund and the Bank in response to a resolution at our last Annual. Meetings.

It is currently our hope that this study should be ready for submission to the Board of Governors at the Annual Meetings in September 1963. Preparation of the study is now at an advanced stage. The staff engaged have drawn to the fullest extent on the experience and work of the several compatity councils and international organizations concerned with these questions. However, in the relatively short time available for the study it has not been feasible to undertake direct consultations with interested organizations to the extent we should have vishel.

In the case of the International Tim Council, the operation of the Agreement in the world tin situation is of special interest, as you point out, and we have taken maximum advantage of the extensive documentation issued by the Council over a period of years. Fund and Bank representatives have also attended the United Rations Conferences during which the successive Tin Agreements were negotiated. The unique experience with this buffer stock in overation in a commodity agreement has been most valuable for the preparation of the study, which will refer in some detail to that experience.

We should relocate the opportunity of discussions at the staff level on the objectives and operation of the International fin Agreement, and I hope there may be an early occasion when Fund staff members can call upon you in London for this purpose. Our continuing relations with member countries where tin mining plays a large role in the economy will in any case make it very useful to strangthen such staff contacts.

Yours sincerely,

Brank A. Southard, Jr. Acting Managing Director

Mr. Erold W. Allen opining and The International Tin Council 23 Temaricos London, S.W.1, England

cc: Mr. Fowler, IBRD

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FORM NO. 75 INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE

INTERNATIONAL DEVELOPMENT

ROUTING SLIP	Date 5/68
NAME	ROOM NO.
Mr. J.S. Friedman	13-1223
To Handle	Note and File
Appropriate Disposition	Note and Return
Approval	Prepare Reply
Comment	Per Our Conversation
Full Report	Recommendation
Information	Signature
Initial	
Initial	Send On

From

Gorles

INTERNATIONAL FINANCE CORPORATION

### OFFICE MEMORANDUM

TO: Mr. D. Avramovic

DATE: July 5, 1968

FROM: Louis M. Goreux

SUBJECT:

FORM No. 58

Following our discussion on policy recommendations for the Commodity Study, I have prepared, as suggested by you, the attached note.

Attachment:

#### PART II

- 1. In accordance with the request presented in Resolution 239, the Bank staff has investigated, in consultation with the Fund staff, feasible ways of reducing the adverse impact of price fluctuations and of unfavorable price trends on the economic advancement of the LDC. The analysis of the problem as a whole has been carried out jointly by the two institutions but the recommendations are presented separately by each institution. The recommendations of the Fund are mainly concerned with the problem of short-term price fluctuations, those of the Bank with the problem of long-term price trend. The recommendations of the Bank are presented below under two headings. The first section considers how, within the scope of its present functions, the World Bank Group could directly contribute through its loan policy to an improvement of the LDC's terms of trade. The second section briefly reviews the contribution which the World Bank Group could make indirectly through its cooperation with commodity bodies.
- I. Loan policy of the World Bank Group and LDC's terms of trade.
- Over the last 15 years, the LDC's as a group have lost considerably more from the decline in their terms of trade, than they have received from the World Bank Group, expressing Bank loans in terms of their grant content. The World Bank Group is greatly concerned with the unfavorable trend of LDC's terms of trade. As a Development Agency, it is concerned because this unfavorable trend hinders the growth of the LDC. As a Financial Institution, the Bank is concerned because it weakens the repayment capacity of the borrowing countries much more than it strengthens the lending power of the donor countries.

The developing countries have not been able to reduce the decline in 3. their terms of trade, because under the present pattern of production and trade there is generally a conflict between the interest of each developing country taken individually and the interest of the LDC's taken as a group. The trade pattern of the LDC's is characterized by a sharp distinction between two categories of commodities: category X for which the LDC's as a group import more than they export, for example wheat, nitrogen, pulp and paper and most manufactured goods; and category Y for which the LDC's as a group export more than they import, for example tropical agricultural products and minerals. For most developing countries taken individually, investing in Y is generally more attractive and easier than investing in X; this is particularly true in the case of tropical agricultural commodities since this production provides a higher level of employment than most of commodities falling in the T category. Consequently, according to their individual interest, developing countries have invested very heavily in Y; at present about 90 percent of LDC's export earnings are derived from commodity Y. If in country A the opportunity cost of producing one dollar's worth of export is lower for Y than for X, investing in Y rather than X is in the own interest of country A even if commodity Y is in "surpluses", but it is not in the interest of the other developing countries nor of the developing countries as a whole. The obvious interest of the group would be to invest more in X and less in Y since this would tend to reduce the price of X for which the LDC's have a net import deficit in relation to the price of Y for which the LDC's have a net export surplus. To solve the conflict between the interest of the group and the interest of each member taken individually, there are two complementary approaches. The first is to restrict the exportable supply of commodity Y by imposing the discipline of the group to each of its members, as is done in the coffee agreement. The second is for the World Bank Group to invest in country A according to the interest of

the group by simultaneously taking into consideration the direct return to country A and the indirect return to the other developing countries.

- The consideration of the rate of return to all LDC's as a group would be a natural evolution in the criteria used by the Bank for selecting projects. The "rate of financial return" of the project is the most tangible rate of return and the easiest to compute. However, despite a relatively unfavorable financial rate of return, a project may actually be very profitable for the economy as a whole because it provides employment to a large number of workers who otherwise would have remained unemployed. Thus, to take into account the impact of a given project on the rest of the economy, the "rate of economic return" to the country is used as an additional criterion for the selection of projects. By analogy, to take into account the impact of a project in country A on the economies of the other developing countries, the rate of return to all LDC's could be used as an additional criterion for the selection of projects related to international trade. Assessing the difference between the rate of return to country A and the rate of return to all LDC's would generally not be more difficult nor less precise than assessing the difference between the rate of "financial return" to the project and the rate of "economic return" to country A.
- 5. The rate of return to all LDC's could be computed in two stages. The first would consist in assessing the direct impact of the project in country A on the export earnings and import expenditure of all developing countries. The computation would be based on the shares of the LDC's exports and imports in world trade and on the price elasticities of imports and exports, all data normally required to project prices. The second stage would consist of introducing a correction factor in order to account for the difference in opportunity costs between the additional production created, which is known from the economic return

of the project, and the marginal production displaced in other developing countries which would have to be broadly estimated. For most commodities, the LDC's have either a large exportable surplus or a large import deficit. In those cases, errors in the estimates of the elasticity coefficients will affect the absolute margin between the return to country A and the return to all LDC's but will not change the sign of this margin. In other words, it will generally be possible to know with sufficient confidence whether countries other than A are likely to lose or gain, even if the magnitude of this gain or loss may not be measured very accurately. The application of the "LDC's rate of return" criterion may result in a substantial gain for the developing countries as a whole as shown by the following example. Thus, by investing more heavily in a number of sectors X, the World Bank Group might succeed in bringing down the average price of one-fifth of LDC's imports by one-half of one percent in relation to the level which would have otherwise prevailed. Similarly, by investing less in Y, the price of one-fifth of LDC's exports might be improved by one-half of one percent. Such a modest change in the price structure would nevertheless result in a net gain for all LDC's equivalent to an additional \$100 million IDA loan a year.

After identifying the sectors (X) for which the LDC's are likely to have a major import deficit, it would be necessary to investigate which developing countries could efficiently increase their production in one of these sectors (X). Due to the diversity in the natural endowment of the LDC's and to the difference in their present stage of industrialization, for many of these products it is probable that at least one developing country could become an efficient producer if sufficient aid was provided by the World Bank Group. Such an investment in country A would result in a net gain to all developing countries other than A, since the savings made by all developing countries importing this product would more than outweigh the losses of the few developing countries, other than A, exporting this product. In view of this net gain, the World Bank Group could be particularly generous in its lending policy and increase the share of IDA money

for such loans. This policy would reflect a basically healthy development strategy for the LDC's, since it would stimulate the production of commodities most needed by the LDC's in the developing countries which can produce them most efficiently.

- The consideration of the return to developing countries other than A could also be applied on a regional scale and in the field of applied research. The development of new Mexican wheat varieties provides a typical example of the international benefits which can result from applied research conducted in a given country. The World Bank Group should therefore be ready to finance applied research in a country, even if the rate of economic return to that particular country is low, provided the findings of this research are likely to be beneficial to many other developing countries. In the case of natural products, such as rubber, which face an acute cost competition from synthetics, investments in research might be among the most efficient contribution the Bank could make.
- 8. On the other hand, the consideration of the rate of return to all LDC's would lead to a reduction of the Bank's investments in the case of commodities Y, when the volume of LDC's exports far exceeds that of their imports, and when the price elasticity of the world import demand is low. In such cases, the developing countries, other than A, exporting commodity Y would lose more from the price decline induced by an investment in A than the few developing countries importing commodity Y would save. The rate of return to all LDC's may well be negative, even if A is an efficient producer and account is taken of the difference in opportunity costs between the new and the established producers. The Bank should therefore attempt to finance loans in sectors less attractive from the point of view of country A but far better regarding their impact on the other developing countries. The country economic survey may, however, indicate that country A has

no alternative but to increase its production of commodity Y. If this commodity is covered by an agreement, the Bank would, on the basis of its findings, address a strong recommendation to the Commodity Council concerned to increase country A's quota.

- 9. The project approach has proved successful by increasing production in particular sectors. However, it does not seem that the Bank project approach would be very appropriate for curtailing the world exportable supply in cases of surpluses. For example, if trees were uprooted in a given area under a Bank project, the clauses of the project could not provide a guarantee that these trees would not be replaced by new plantings somewhere else in the world. The task of restricting world exportable supplies, when needed, could be more efficiently carried out through the specialized machinery of International Commodity Agreements.
- 10. The consideration of the rate of return to all LDC's would affect only a fraction of Bank loans. Nevertheless, since the strict application of a given rule might lead to modifications in the allocation of loans between countries unsatisfactory on equity grounds, adjustments would be required to avoid creating unequitable situations. In its loan allocation, the Bank has attempted in the past and will always attempt to find the most satisfactory compromise between criteria of economic efficiency and equity.
- 11. Apart from the direct impact on investments through the project approach in the narrow sense, the World Bank can exert some influence on the general economic policy of the country. When reviewing countries economic performance, the Bank could give greater weight than in the past to the policies related to international trade and use its leverage to orientate the country towards more satisfactory policies in this field when needed. The leverage of the Bank could be increased, if an agreement could be reached with other aid agencies on the broad lines of the desirable investment and trade pattern in the LDC's.

12. To conclude this first section, within the scope of its present functions, the most efficient contribution which the Bank could make through its loan policy to improve the LDC's terms of trade is to concentrate its efforts on increasing the production of those commodities which will be most needed by the LDC's. This might be best achieved by introducing the concept of optimization for the LDC's as a group in the Bank loan policy. The application of such a policy is bound to raise conflict, since the gains to be derived from it will result from the differences between the interest of each member of the group taken individually and the interest of the group taken as a whole. The difficulties to be encountered seem, however, well worth the potential gain. Furthermore, optimizing the Bank investment policy for the LDC's as a whole is in line with the broad mission given to the World Bank Group, and this group is in a unique position to apply such a policy.

#### II. Cooperation with Commodity Bodies

- 13. The action of the Bank as outlined in the previous section, would lose much of its impact if it were not complemented by the enforcement of market regulations through International Commodity Agreements. The World Bank Group is therefore anxious to cooperate very closely with Commodity Councils and Commodity Study Groups.
- In the case of commodities with a low price elasticity of import demand, such as tropical beverages, LDC's export earnings can be raised by restricting the volume of exportable supplies. By stabilizing world market prices somewhat above the level which would otherwise have prevailed, such schemes may provide additional funds for development activities. If the price differential is fully transferred to the exporting countries, which is generally the case, the governments of these countries have to withhold part of their receipts through export

taxes or other devices, and channel the proceeds into the sectors where expansion is most profitable. In such a case, the gain resulting from the restrictive policy followed by the agreement is distributed among producers in proportion of their export quota. Experience has shown that the major impediment to efficient allocation of resources arises from the initial pattern of quota allocation and the general resistence to subsequent adjustments.

- This problem can be considerably eased by channelling part of the price differential into a Diversification Fund. Redistribution by the Fund would be made in accordance with relative opportunity costs rather than in accordance with the established quota. The Fund might "buy" from the countries with the highest opportunity cost a fraction of their quota, which would implicitly allow for an expansion of exports by countries with low opportunity costs. Such "purchases" could be negotiated or take the form of auction bids periodically offered to countries producing commodity Y at a high opportunity cost. The price to be offered by the Fund for a gradual quota reduction should be such as to enable the country to generate a flow of earnings higher than the one foregone. Since, as a rule, the production of tropical commodities is labor intensive, the transfer of resources will frequently raise problems of labor re-employment and income redistribution. A flow of earnings higher than those foregone should allow the country to cope with these problems.
- 16. In order to enable the Diversification Fund to make quota purchases as described, uncommitted contributions in convertible currencies would be required. Such contributions could be obtained by imposing import levies or (uniform) export taxes. In the case of coffee, for example, a levy of one cent per pound exported would yield some \$60 million per year, approximately equivalent to the grant content of a \$200 million Bank loan or of a \$90 million IDA loan. Obviously, the larger the fraction of the export price channelled through the Diversification

Fund the more effective its action could be. Moreover, narrowing the gap between the price directly received by exporters and their opportunity cost would  $\underline{per}$   $\underline{se}$  act as a stimulus to diversification. The import levy or export tax should vary with prices; it should rise faster than the latter so as to prevent excessive investment during peak periods.  $\underline{1}$ 

- 17. Obviously the shift of resources to other alternatives should not be made within the Y category, say from coffee to sugar. In order to be in the best interest of the LDC's as a group, transfers should conform with the broad guidelines discussed in the previous section. Prior to making any decisions to that effect, studies of relative opportunity costsare required.
- 18. Commodity Councils have a particular expertise concerning markets; they are not, however, equipped to assess relative opportunity costs or to appraise projects in a variety of fields. The Bank, therefore, would be ready to provide assistance in this respect as well as in the supervision of projects. The Bank could also supplement the Diversification Fund disbursements by Bank Loans depending on the particular merits of the project. On request, the Bank would be ready to fully relieve the Commodity Councils of all technical work involved in the Diversification Fund's operations. Furthermore, as noted in paragraph & above, if as a result of its regular work the Bank staff felt it was necessary to adjust the quota of a particular country, it would recommend such a measure to the Council. Nevertheless, the Commodity Councils would retain full control as provided for in the Agreement. It would be their responsibility to negotiate Diversification Fund disbursements in exchange for agreed reductions of quotas.

I/ Such a tax would not aggravate the price increase to consumers during the peaks if, as is the case for tree crops, the short-term production response at high prices is negligible, while the short-term consumers' response is substantial. The quantity bought by consumers at the price before tax would then be the only stable equilibrium position and the tax would be transmitted to producers during the peaks. Since the long-term production response to high prices is particularly large, the amplitude of the subsequent trough would be reduced and cumulated producers' earnings increased. Larger resources of the Diversification Fund during the peak would further contribute to preventing overinvestment during the critical period.

Irving S. Friedman

#### Commodity Study

I regret that due to the pressure of work I have not been able to reply to your memorandum of June 20, 1968. However, Mr. Avramovich and myself have discussed these matters at considerable length and we share a common view.

I have asked Mr. Avramovic to talk to you about it.

ec: Mr. Avramovic

FORM No. 57

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE

### OFFICE MEMORANDUM

Mr. Ernst vom Hofe TO:

DATE: July 2 1968

FROM:

Irving S. Friedman

SUBJECT: Commodity Study

I regret that due to the pressure of work I have not been able to reply to your memorandum of June 20, 1968. However, Mr. Avramovich and myself have discussed these matters at considerable length and we share a common view.

I have asked Mr. Avramovic to talk to you about it.

cc: Mr. Avramovic

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I Friedman To goreen From Part I Subject I expersed to Mr. Arraviovic Morey reservations on his draft of Part II. Following his regrent I have written a few fages eltailed. Unfortuably the Court tur fager could not be typed the evening.

It was attented represented but now July 1, 1968

In accordance with the request presented in Resolution 239, the Bank staff has investigated, in consultation with the Fund staff, feasible ways of reducing the adverse impact of price fluctuations and of unfavorable price trends on the economic advancement of the LDC. The analysis of the problem as a whole has been carried out jointly by the two institutions but the recommendations are presented separately by each institution. The recommendations of the Fund are mainly concerned with the problem of short-term price fluctuations, those of the Bank with the problem of long-term price trend. The recommendations of the Bank are presented below under two headings. The first section considers how, within the scope of its present functions, the World Bank Group could directly contribute through its loan policy to an improvement of the LDC's terms of trade. The second section briefly reviews the contribution which the World Bank Group could make indirectly through its cooperation with other bodies.

- I. Loan policy of the World Bank Group and LDC's terms of trade.
- 2. Over the last 15 years, the LDC's as a group have-lost considerably more from the decline in their terms of trade, than they have received from the World Bank Group, expressing Bank loans in terms of their grant content. The World Bank Group is greatly concerned with he unfavorable trend of LDC's terms of trade. As a Development Agency, it is concerned because this unfavorable trend hinders the growth of the LDC. As a Financial Institution, the Bank is concerned because it weakens the repayment capacity of the borrowing countries much more than it strengthens the lending power of the donor countries.

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the group by simultaneously taking into consideration the direct return to country A and the indirect return to the other developing countries.

The consideration of the rate of return to all LDC's as a group would be a natural evolution in the criteria used by the Bank for selecting projects. The "rate of financial return" of the project is the most tangible rate of return and the easiest to compute. However, despite a relatively unfavorable financial rate of return, a project may actually be very profitable for the economy as a whole because it provides employment to a large number of workers who otherwise would have remained unemployed. Thus, to take into account the impact of a given project on the rest of the economy, the "rate of economic return" to the country is used as an additional criterion for the selection of projects. By analogy, to take into account the impact of a project in country A on the economies of the other developing countries, the rate of return to all LDC's could be used as an additional criterion for the selection of projects related to international trade. Assessing the difference between the rate of return to country A and the rate of return to all LDC's would generally not be more difficult nor less precise than assessing the difference between the rate of "financial return" to the project and the rate of "economic return" to coun-The rate of return to all LDC's could be computed in two stages. first would consist in assessing the direct impact of the project in country A on the export earnings and import expenditure of all developing countries. The computation would be based on the shares of the LDC's exports and imports in world trade and on the price elasticities of imports and exports, all data normally required to project prices. The second stage would consist of introducing a correction factor in order to account for the difference in opportunity costs between the additional production

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created by the project and the marginal production displaced in other developing countries. Une of the findings which would naturally emerge from the systematic planning exercise carried out by the Bank staff would be to identify the mapula basis commodities for which the LDC's are likely to have major import deficit (X) or exportable supply (Y), and to project the likely share of LDC's imports and exports in world trade for these commodities. Once this work is systematically carried out by the Bank staff, the assessment of the rate of return to all LDC's would not create delays in the procedure for assessing projects. The magnitude of the gain which might occur to the LDC's as a whole may be illustrated as follows. If the systematic application of this policy resulted in a one-half of one percent reduction in the average price of one-fifth of LDC's imports and in a one-half of one percent increase in the average price of one-fifth of LDC's exports, the gain for all LDC's would be equivalent to an average increase of In actuality the green coul \$100 million a year in IDA loans. The most important aspect of this policy would consist of a priority investigation by the Bank staff of those developing countries which could efficiently increase their production of one of the products X for which the LDC's

ciently increase their production of one of the products X for which the LDC's will have a major deficit. Due to the diversity in the natural endowment of the LDC's and to the difference in their present stage of industrialization, for many of these products it would be possible to find at least one developing country which could become an efficient producer if sufficient and was provided by the World Bank Group. Such an investment in country A would result in a net gain to all developing countries other than A, since the savings made by all developing countries importing this product would more than outweigh the losses of the few

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<sup>1/</sup> See examples in annex.

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developing countries other than A exporting this product. In view of this net gain, the World Bank Group could be particularly generous in its lending policy and in the share of IDA versus Bank money for such loans. / This policy would reflect a basically healthy development strategy for the LDC's, since it would stimulate the production of commodities most needed by the LDC's in the developing countries which can produce them most efficiently.

- The consideration of the return to developing countries other than A 7. could also find its application on a regional scale and in the field of applied research. Thus, if research on improved wheat varieties conducted in Mexico was profitable to that particular country, the total dividends to the LDC's as a group were many times greater. The World Bank Group should therefore be ready to finance applied research in a country, even despite a relatively low return to that particular country, if the findings of this research are likely to be beneficial to many other developing countries. In the case of natural products, such as rubber, facing an acute cost competition from synthetics, such investments might be among the most efficient contribution the Bank could make.
- The consideration of the rate of return to all LDC's would, on the other hand, lead to a reduction of the Bank's investments in the case of commodities Y, when the volume of LDC's exports far exceeds that of their imports, and when the price elasticity of the world import demand is low. In such cases, the developing countries other than A exporting commodity Y would lose more from the price decline induced by the investment in A than the few developing countries importing commodity Y would save. The rate of return to all LDC's may well be negative even if A is an efficient producer and account is taken of the difference in opportunity costs between the new and the established producers. I the Ball would

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The Bank should therefore attempt to finance loans in sectors less attracfrom the point of view of country A but far better regarding their impact on the other developing countries. The country economic survey may, however, indicate that country A has no alternative but to increase its production of commodity Y. If this commodity is covered by an agreement, the Bank would, on the basis of its findings, address a strong recommendation to the Commodity Council concerned to increase country A's quota. The consideration of the rate of return to all LDC's would affect only a fraction of Bank loans; nevertheless, it might lead to a modification in the allocation of loans between countries unsatisfactory on equity grounds. Such an allocation would have to be corrected, in particular a country with satisfactory economic performance could not be deprived of aid. In its loan allocation, the Bank has attempted in the past and should always attempt to find the most satisfactory compromise between criteria of economic efficiency and equity. A greater flexibility between the allocation of Bank and IDA loans may help in finding such compromises.

Do. The previous paragraphs were related only to the criteria which could be used by the World Bank Group for selecting projects. Since its institution, the Bank machinery has been geared to the creation of additional production capacity but curtailing production requires a specialized machinery which does not exist at present in the World Bank Group. The project approach, in which the Bank has accumulated a unique expertise, is appropriate for creating additional production capacity; it is not appropriate for curtailing world export supplies, since there is no guarantee that the trees which would be uprooted in a given project would not be replaced by new plantings somewhere else. It seems therefore that the task of restricting world exportable supplies, when needed, could be more efficiently carried out through the specialized machinery of International Commodity Agreements.

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efficient contribution which the Bank could make to improve the LDC's terms of trade is to concentrate its efforts on increasing the production of the commodities which will be most needed by the LDC's. This might be best achieved by introducing in the Bank loan policy the concept of optimization for the LDC's as a group. The application of such a policy is bound to raise conflicts, since the gains to be derived from it will result from the differences between the interest of each member of the group taken individually and the interest of the group taken as a whole. However, the difficulties to be encountered seem well worth the potential gain. Optimizing the Bank investment policy for the LDC's as a whole is in line with the broad mission given to the World Bank Group, and this group is in a unique position to apply such a policy.

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## II. Indirect contribution of the Bank through its cooperation with other bodies

- II. The action of the Bank outlined in the previous section would lose much of its impact if it were not adequately coordinated with the policy followed in International Commodity Agreement. The World Bank Group is therefore anxious to cooperate closely with Commodity Councils and Commodity Study Groups. Examples of the nature of the contribution which the Bank could make are given below in the case of commodity diversification funds and price stabilization schemes.
- 12. In the case of commodities, such as tropical beverages with a low price elasticity of the import demand, LDC's export earnings can be raised by restricting the volume of exportable supplies. Such price raising schemes may therefore provide additional funds for developmental activities. If the price increase is fully transmitted to the exporting countries, the governments of these countries have to capture the benefits through export taxes or other devices, and channel the proceeds in the sectors where expansion is most needed. In such a case, the gain resulting from the restrictive policy followed by the agreement is distributed among producers in proportion of their export quota which is the corner stone of the agreement. The major difficulty is the initial allocation of quota and their adjustment in relation to changes in the conditions of production to avoid an inefficient allocation of resources among producing countries. The solution to this problem can be considerably eased if part of the gain is captured by a diversification fund. This fund can buy a fraction of their quota from the countries with the highest opportunity cost of production and thus accommodate for the expansion of the production in the countries with the lowest opportunity cost. Whether the funds buy a given percentage of the quota in an auction or allocate diversification grants to its members, the principle is the same. A country with high opportunity cost is given a grant to enable it withdrawing resources from coffee to a more profitable activity.

Barby

how



TO : Mr. Friedman

DATE: July 1, 1968

FROM : J. J. Polak

SUBJECT: Commodity Stabilization Study

I attach a draft of the Fund's Part II. This draft is by no means agreed within the staff, and I would not preclude the possibility of some rather important changes. Nevertheless, I would like to get your reactions, both on the background as a whole and on the last section in particular.

cc: Mr. Avramovic

### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT
ASSOCIATION

INTERNATIONAL FINANCE CORPORATION

TICE OF THE PRESIDENT

July 1 1968

Copies circulated at Mr. Kamarck's request to Messrs. Sacchetti, Kalmanoff and Collier with message:

"This is something we may wish to discuss late today or tomorrow."

### OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman

DATE: June 27, 1968

FROM: Dragoslav Avramovic

SUBJECT: Commodity Study - Part II

- Attached is the draft Part II of the Commodity Study, which represents an outline of possible fields of action by the World Bank Group. As you will notice, the section on export credit refinancing has been dropped since the issue may be considered as not being sufficiently explored.
- There are several issues to which I should like to draw your attention. Para. 11 states that lending for diversification would be additional to normal Bank lending. Can we state this flatly or should it be dropped? Followed to its logical conclusions this issue may raise questions about project appraisal criteria applicable to such cases. Question has also been raised that when a diversification project is undertaken by a country under an international commodity agreement which results in increased prices, the country would be benefiting from a resulting transfer of resources under the agreement so that additional assistance from general aid funds through Bank lending would not be warranted.
- With respect to action on price stabilization, the draft leaves open the question whether we may consider lending for buffer stocks when IMF resources are not sufficient and also when such resources are not available. The second statement may be interpreted that we may consider buffer stock operations when this has been turned down by the Fund. Can we leave this implication? In connection with this section, there is also the question whether it is not too long in view of the fact that we are essentially saying that we count on the Fund to finance the buffer stocks. According to latest information, the Fund is prepared, at its discretion, to go beyond the compensatory financing tranche when the countries have to make a payment to an international buffer stock.
- The draft does not touch on the legal problems and on the possibility of using the Bank guarantee for buffer stock financing. The reason is that going into this may appear to go too far in opening the door for buffer stock financing. Perhaps we can discuss this further.
  - I had drafted a technical assistance section in connection with commodity agreements. The view has been expressed that any offer to undertake analytical work in connection with concluding commodity agreements would duplicate the work of UNCTAD and FAO.

cc: Mr. Goreux

Mr. Macone

Mr. Sundrum





INTERNATIONAL FINANCE

## OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman

DATE: June 28, 1968

FROM:

R.M. Sundrum

SUBJECT:

FORM No. 57

Comments on Mr. Mikesell's Paper on Performance Criteria.

Mr.Mikesell's paper is useful in raising some important questions about the use of performance criteria in Bank work, and making some suggestions for research in this area.

His paper clarifies the different purposes for which performance criteria are needed, and classifies the available criteria according to their importance in dealing with the various purposes. I believe that his way of distinguishing types of performance criteria may be useful to us in writing our reports.

His paper makes the further point, that we should perhaps be doing concrete work on defining the norms or standards correspoding to the various criteria we are already using. I think the setting up of such norms, on the basis of objective comparisons, would go far to meet the criticisms that we do not have or apply objective criteria in our work. Perhaps, if Mr. Mikesell is considering revision of his paper, this point could be brought out more clearly.

A final point. I believe that some criteria that Mr.Mikesell has considered are implicitly relying on a particular strategy of development; I refer particularly to the concept of degree of openness. I feel that the criteria to be used should be a bit more neutral on such questions. I would suggest instead that to the extent that a country has decided to open its economy to external relationships, such as the export sector which is intended to be expanded, such questions may be useful. That is to say, measurements of degree of openness of the economy should be defined for sectors, for which this is relevant in the light of a country's development strategy.

Mr.Mikesell's principal recommendation on the derivation of norms appears to be the use of inter-country comparisons. Some work is already being done in the Bank; it is possible that more work can be done.

## OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman

DATE:

June 27, 1968

FROM:

Raymond F. Mikesell

SUBJECT:

FORM No. 57

Performance Criteria and Economic Ideology

One of the problems in the selection of broadly applicable indicators and norms of country performance is the existence of countries with different ideologies and politico-economic systems. The principle that the Bank cannot impose a particular ideology as a condition for lending to its members is stated explicitly in the Articles. Moreover, member countries cannot be neatly divided into categories such as socialist, controlled private ownership, and free enterprise. Their economic systems constitute a broad spectrum of organization and control. While we may regard a free enterprise system as the most efficient and in certain respects judge the efficiency of all countries in terms of the norms of a competitive free enterprise economy, we cannot adopt criteria which may only be realized by a particular type of economic organization.

This problem arises mainly in the area of price relationships. Countries that employ direct allocations and price controls covering a broad area of economic activity frequently justify their policy on the basis of economic philosophy as well as on the basis of strategy or expediency. Nevertheless, virtually all members of the Bank, including Yugoslavia, employ the price system as a means of regulating output, and in most countries relative prices govern a broad area of investment in the private sector. Therefore price relationships as they are affected by international trade policy, foreign exchange policy, price controls, and monetary and fiscal policies, are relevant in the analysis of performance for virtually all members of the Bank. For this reason I believe that criteria relating to internal and external price relationships should be formulated with a view to their general application in country reviews.

RFMikesell:pam

## OFFICE MEMORANDUM

TO: Mr. I. S. Friedman

DATE:

June 26, 1968

FROM:

SUBJECT:

Raymond F. Mikesell

Creditworthiness and the Export Growth Rate

The other day someone raised the question of why I had suggested in my "Performance Criteria" memo the ratio of the rate of increase in exports to the rate of increase in import requirements plus interest payments as an indicator of creditworthiness. It was suggested that I should have included amortization payments in the denominator. This question seems sufficiently significant to warrant a short memorandum.

Let us assume that  $X = M + i + A - C_g$ 

where X is exports, M, required imports, i, interest on external debt, A, annual amortization and  $C_g$ , gross borrowing. If  $C_g$  = A, then net capital inflow,  $C_n$ , is zero and X must grow at the same rate as M + i. If X rose at a higher rate than M + i, there would be net capital outflow or A> $C_g$ . If there is a continuous period of net capital inflow, X must rise more slowly than M + i.

Only if there is net capital outflow as a consequence of A>Cg would the export growth rate need to be greater than the rate of growth of M + i. However developing countries should be expected to have a constant net capital inflow for perhaps several decades; at least they should not contemplate net capital outflow. I believe that development institutions have an obligation in cooperation with developing countries to promote a rate of gross capital inflow which will avoid periods of net capital outflow.

The above discussion has certain implications for the debt service ratio,  $\frac{A+i}{X}$  which is equal to  $\frac{r}{v}$ . Where r is the sum of the

annual rate of amortization on the indebtedness and the average rate of interest, and  $D_n$  is net indebtedness. So long as the rate of increase in exports is equal to the rate of increase in net indebtedness, the debt service ratio will not rise. Now net debt increases with an increase in (M+i)-X. Assuming that X<(M+i), but that X is increasing at a faster rate than (M+i), the rate of increase in  $D_n$  will decline. If the rate of increase in net indebtedness,  $D_n$ , is initially higher than the export growth rate, the rate will eventually decline to (or below) the export growth rate so that the debt service ratio will cease to grow or possibly decline. This can occur while the country continues to be a net importer of capital. All that is necessary is that the rate of increase in exports is greater than the rate of increase in M+i. It is for this reason that I have suggested as one indicator of creditworthiness the ratio of the rate of export growth to the rate of increase in required imports plus interest.

- I agree with Prof. Mikesell that a single indicator of performance, per capita output or any other, would not do: in several countries a succession of good or bad monsoons can be the determining factor of output growth, irrespective of good or bad policy performance. But, the question really is: do we go by satisfactory policy performance or by adequate results? Given the fact that the LDCs have low income levels, and are generally faced with complex difficulties in the development process, self-help effort should be the chief measure and indicator of performance. While there are a number of other factors impinging on this development process, the mobilization of domestic savings and the efficient use of available resources constitute the real target of effort. This has to be the dominant element in any discussion of performance. In this effort, again, it is not any particular level that should be a norm, but the direction and pace of change. We may then include a few related criteria: e.g. development strategy (implying a longer term perspective in considering growth rates), tax revenues in relation to GNP, administrative and technical efficiency in terms of project preparation and execution, and trends in exports.
- 2. Prof. Mikesell's illustrative model of performance indicators, on the other hand, runs over three pages. What precision can be attached to the social indicators or to environmental indicators: to dedication of leaders to development programs, degree of political and economic stability, degree of competition and openness of the economy, or even to such obviously important policy measures as agricultural reform legislation and administration? Improvement in general education levels and health conditions is, of course, necessary and is part of every government's effort and we can't have too much of either education or health but can they provide an objective guide to performance specifically in considering external assistance? Again, how can improved health conditions in LDCs and reduction in population growth rates be both consistent criteria within any measurable time period, unless draconian measures of population control are adopted? With respect to such criteria, it would be very difficult, if not impossible, to devise any standardized performance measure.
- 3. In particular, external viability is a disturbing criterion to postulate for satisfactory performance. While a number of developing countries have this in their development programs as an important goal, and we ourselves give it weight in assessing development strategy, capital needs, and creditworthiness of countries, it is very doubtful if the LDCs, with very few exceptions, can, in fact, achieve external viability (however defined) for years to come, especially in view of the fact that official external aid is not largely in grant form and private foreign investment is not mainly oriented to export promotion.
- 4. Exports are the major source of foreign exchange for LDCs, and export promotion has to be accorded the highest priority. However, it is the structure of LDC exports, the conditions of world demand, the policies of advanced countries toward the exports of LDCs, the growth of synthetics, and sometimes,

weather conditions, that determine the level of LDC export earnings. We have seen pest control, replantation and other programs that improve productivity of cocoa, tea, rubber, vegetable oil seeds, etc., resulting in depressed prices and lower export earnings. The trends in their exports (their share in world exports has declined from 1/3 to less than 1/5 in the last 15 years) confirm this. In fact, except for oil exporting countries and a few others favored by exceptional circumstances, for most LDCs the trade trends have been distressing; this has been the position for any recent ten or five-year period, and currently in 1967 and 1968. If today LDCs were to have the same share in world exports as they had fifteen years ago, development aid would not be so critically important in their plans. No doubt, policy changes such as exchange rate adjustments secure benefits to particular countries: India may export more tea at the expense of Ceylon; Pakistan more jute goods at the expense of India; Malaysia more rubber at the expense of Indonesia; Colombia more coffee at the expense of Brazil; Ghana more cocoa at the expense of Nigeria; Sudan more cotton at the expense of U.A.R. - or vice versa. But, together, would their exports expand materially? Export growth is essential for the economic development of LDCs, precisely because of the limited foreign exchange resources at their disposal: for some countries shortage of foreign exchange resources is the critical constraint. But, when we discuss performance as an aid condition, it is my submission that we should relate it to enlarging domestic resource mobilization and not to improved import capacity.

5. Finally, while performance criteria are a guide for the allocation of economic assistance, performance is to be construed equally as a condition for larger aid flows, not merely as a rationing device for a stationary or declining aid volume. It is particularly important that an international institution should keep in view always this two-sided function of performance criteria. Also, while non-economic areas are important in the ultimate analysis, I have serious doubts whether political, social and cultural factors and values can be fruitfully discussed in judging performance. I would, therefore, specifically omit items like "preparation of a series of indicators for measuring strategic elements of socio-cultural-political change" from Prof. Mikesell's suggestions for further research (pp. 31-32).

# OFFICE MEMORANDUM

TO: Mr. I. S. Friedman

DATE: June 24, 1968

FROM: Raymond F. Mikesell

SUBJECT: The Marginal Savings Ratio

I have noted that one of the indicators employed in the Bank's country reviews is the marginal savings ratio, and I have been so irreverent as to suggest in my memorandum on "Performance Criteria" that I doubted that it had any operational significance. The purpose of this memorandum is to attempt to justify this position.

An indicator which is to be useful in policy recommendations should have an identifiable relationship to policy or self-help measures. Statistically, savings are normally determined as a residual: that part of national income not spent on consumption of goods and services. Actual or "realized" savings are, by definition, equal to actual or "realized" investment,/l and savings are derived as a residual from estimates of investment and other components of GNP. Actual domestic savings may diverge from actual investment by the amount of net capital inflow including foreign assistance. Data on domestic investment are notoriously poor and the calculated ratios of annual increments of investment to the annual increments of national product tend to fluctuate substantially. This ratio will fluctuate with the character of investment, productivity growth, export prices, etc. Hence the marginal savings ratio which must, ex post, always be equal to the marginal investment ratio (after allowance for capital inflow) is not necessarily a measure of willingness of the community to undertake ex ante savings out of additional income. One can postulate that in the absence of willingness to increase ex ante savings out of additional income, the additional investment would not have been possible. But there is no easy way to determine whether saving is a constraint and, in addition, the marginal savings ratio is not a measure of ex ante savings. It is a measure of ex post savings calculated as equal to ex post investment less capital inflow.

Now we have good reason to believe that savings effort may frequently be an important factor in growth in the sense that insufficient savings may constitute a constraint on growth. Investment in excess of ex ante savings may lead to inflation which reduces the real value of investment and/or distorts prices which may affect the character of investment. But since the usual measures of aggregate savings as a residual are always ex post, they do not provide us with a very reliable indicator of savings effort. What we need is an indicator of ex ante savings effort which is in some degree at least, independent of the behavior of ex post investment. It is for this reason that I have suggested as an indicator of effective savings effort an index of real savings in Tinancial institutions.

<sup>1/</sup> Savings and investment are "net" or "gross" dependent upon whether they include depreciation.

#### Savings Behavior in Relation to Income

The marginal savings ratio is based on a theory of savings behavior that is not firmly grounded in either empirical evidence nor in theories relating to the savings pattern of income receivers. It assumes that an increase in the savings ratio occurs because households, firms and governments determine to save a larger proportion of <u>increments</u> in their incomes. Hence the average savings ratio can only rise slowly and its rate of rise depends upon the rate of increase in incomes and the marginal savings ratio. While this assumption provides a basis for a savings-centered growth model and a ready means of calculating the amount and duration of net capital inflow required to achieve self-sustained growth, this fact scarcely recommends it as a realistic portrayal of economic behavior.

Actually, we know very little about the behavior of savings in response to a rise in income in either developed or developing countries. Most of the empirical studies are based on inter-country comparisons using regression techniques. / The results vary considerably for investigators using essentially the same country data. Some investigators find a positive association between domestic savings rates and per capita income, but others do not. Some find the explanation for differences in savings behavior among countries to lie more in structural factors such as industrialization, urbanization and the distribution of income, than in per capita incomes. Others have emphasized such factors as the character of savings institutions, the availability of consumer credit, the availability of durable consumer goods, or in government fiscal and monetary policies, as the principle determinants of savings. There are also various types of permanent income hypotheses which differentiate between current and normal income in the savings function. Some economists have stressed the effects of change in assets on savings and hold that people desire assets rather than savings out of income and that they behave in certain ways with respect to asset accumulation with a given change in income. /2

It is certainly conceivable that a change in government policies and in institutional arrangements could affect the volume of ex ante savings independently of the marginal savings ratio in the sense that there could be quantum changes in effective savings. Depending upon the pattern of economic growth and its relationship to investment this might not be reflected in a rise in the marginal savings rate for a particular year or for several years.

Relationship between the Marginal Savings Ratio and the Rate of Growth in GNP

The accompanying table compares estimates of the marginal savings ratio, the compound rate of growth in investment, and the compound rate of growth in GNP for the period 1957-1962 for 31 countries. The lack of any significant

<sup>1/</sup> See K. Krishnamurty, International Comparisons of Domestic Savings Rates -A Review (IBRD memo January 31, 1968); see also C. T. Morris, International Comparison to Domestic Savings, AID Discussion Paper No. 6, 1963.

<sup>2/</sup> See Irwin Friend and Paul Taubman "The Aggregate Propensity to Save: Some Concepts and their Application to International Data." The Review of Economics and Statistics, May, 1968.

degree of correlation is evident from a perusal of the data. Although comparable data on net capital inflows are not available, I have found that allowance for net capital inflows does not improve the picture significantly. It would be interesting to make a similar comparison for the same data found in IBRD country reviews.

RFMikesell:pam Attch.

# Marginal Savings Ratios and Compound Rates of Growth in Gross Investment and GNP, 1957-1962, Selected Countries

	Marginal Savings Ratio	Compound GNP Growth Rate	Compound Growth Rate of Gross Investment
Greece India Iran Israel Jordan	.26 .20 .11 .15	.060 .048 .049 .103	.12 .07 .01 .10
Pakistan Turkey Argintina Bolivia Brazil	.25 02 .83 16 .19	.011 .030 .019 .029 .067	.15 .04 .09 02
Chile Colombia Costa Rica Guatemala Honduras	.10 12 10 03 .25	.038 .050 .039 .036 .033	.12 .04 01 05
Mexico Panama Paraguay Peru Trinidad-Tobago	.11 .37 .08 .31	.050 .051 .026 .073 .078	.02 .10 .01 .03 .05
Venezuela Liberia Nigeria Tunisia Burma	26 .21 .19 84 .21	.043 .046 .033 .034 .046	08 .57 .09 .27 00
Taiwan Korea Philippines Thailand Malaya	.29 .27 .30 .22 .26	.074 .040 .050 .080 .062	.13 .00 .05 .10
Mauritius	39	.034	.08

Source: Hollis Chenery and A. M. Strout, "Foreign Assistance and Economic Development," AER, Sept. 1966, Tables A-1 and 6, pp. 706-709.

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INTERNATIONAL FINANCE CORPORATION

# OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman, Mr. D. Avramovic DATE: June 24, 1968

FROM: N. A. Sarma

SUBJECT:

FORM No. 57

Commodity Study and S.F.M.

Placed below are a couple of paragraphs on the relationship between S.F.M. and Commodity Stabilization arrangements, for insertion in the Commodity Study:

"There is an interesting relationship between international efforts to stabilize prices of primary commodities, and the scheme for supplementary financial measures proposed by the staff of the World Bank, which may be noted here. Commodity agreements cannot be considered a substitute for the scheme proposed, since the objective of the scheme is to prevent the disruption of development programs arising from shortfalls from reasonable expectations in total export earnings including invisibles, wherever appropriate.

"Progress in negotiating commodity agreements is likely to enable countries to have more accurate expectations of their export prices and, hence, in part of their earnings, on the basis of which to formulate their development programs, and will reduce the cost of supplementary financial measures. This effect would depend on the number of commodities subject to agreements and the operative features of such agreements, especially in regard to export volume. Even if a large number of commodity agreements are successfully concluded, they are unlikely to cover the total earnings of a country from all its exportable commodities (including invisibles) so that there would still be need for the approach through supplementary financial measures. Like trade promotion and development aid more generally, commodity agreements and supplementary finance complement each other and are both needed."

My dear Hanemann,

I understand from Sir Denis Rickett that you are interested in the work the Bank and the Fund are doing on commodity stabilization. The proposed report will be in two parts.

Attached hereto is an outline which was distributed to both Boards. The first part is, of course, likely to look somewhat different from the outline, but not too much so.

The first part will deal with the general analytical aspects of the problem of commodity stabilization. It will discuss topics like the trends and fluctuations in the commodity trade in the less developed countries, the causes and consequences of the adverse trends and of instability; measures of dealing with instability and for improving earnings and the prospects of diversification.

The first part is being done jointly by the Bank and Fund staff and is expected to be ready in June or July. The second part will be written separately by the Bank and the Fund. It is hoped that a draft of the second part will be ready more or less at the same time, but being a policy paper I cannot be sure. If ready, the report will be presented to the Board of Directors before the Annual Meeting. I hope this is helpful.

With best wishes and warm regards,

Yours sincerely,

(signed) Irving S. Friedman

Irving S. Friedman
The Economic Adviser to the President

Mr. Wilhelm Hanemann
Deputy Assistant Secretary
Ministry of Economic Affairs
Bonn
Federal Republic of Germany

cc: Sir Denis Rickett Mr. Avramovic

# OFFICE MEMORANDUM

TO: Irving S. Friedman

DATE: June 5, 1968

FROM: A. L. Datar ALP

SUBJECT: Mr. Rickett's letter on Commodity Stabilization

I suggest that you acknowledge Mr. Rickett's letter and send him a copy of the letter to Herr Hanemann. Please find attached drafts for both.

I discussed the subject matter of the letters to Herr Hanemann with Mr. Avramovic.

# OFFICE MEMORAND

TO: Mr. Irving Friedman

Denis Rickett FROM:

Commodity Stabilization SUBJECT:

DATE: May 28, 1968

When I saw Herr Hanemann of the Ministry of Economics in Bonn on May 10 he asked me about the work which we and the Fund are doing on commodity stabilization. What sort of report had we in mind for the Annual General Meeting and what kind of preliminary discussions would take place before the matter came to the Board? If an interim report only would be submitted, how much of the ground would it cover?

You told us today that you had been engaged in a discussion with Messrs. Southard and Polak on this subject. Would you care to write to Hanemann and tell him how the matter stands? Alternatively, I could do so but I should like to discuss with you first what I should say.

DRickett:emcc

c.c. Mr. Knapp

# OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman

DATE: May 28, 1968

FROM: Bela Balassa

SUBJECT: Commodity Study: Comment

### Diversification

- I symphatetic to the idea that the Bank should assist developing countries in diversifying their economies. I would not like to see the Bank, however, to finance the withdrawal of factors of production from a product in surplus (Para. 2) and neither do I see the necessity that the Bank should give priority consideration to diversification projects. The principal aim of the Bank is to foster economic growth in the developing countries; a narrow emphasis on diversification may not be the best way to serve this purpose.
- 2. It should be added that, in the absence of an international agreement, diversification projects may not bring the desired results since the reduction of output by one producer can induce other producers to increase output so that the world supply of the commodity in question may not change. This has happened with regard to coffee, rubber, and some other commodities in the postwar period. At the same time, international agreements on cutbacks in production may be successfully negotiated in regard to very few products.
- But do we have to worry about too much resources going into agriculture? The paper takes this view and argues in favor of resource shifts into industry on the basis of assumptions made in regard to long-term elasticities of demand for primary products (Para. 7). This seems to be a one-sided view, however, and I believe that in the post-war period the major problem was too little rather than too much investment in agriculture. Accordingly, the proper emphasis would be on improvements in productivity, in part to increase domestic consumption and in part to augment the share of the developing countries in world output. It appears, then, that the scope of cutbacks cum diversification is limited to those few commodities, such as coffee, cocoa, and tea, where developing countries are not competing with producers in developed nations.

# Improvements of Competitive Position of Primary Products

4. The next section of the paper considers the issue of competition with synthetics. The reluctance to invest in improvements due to the difficulties of estimating the yield on such investments should not be overestimated, however. In the case of rubber, this has been done with

success in Malaysia, leading to a considerable increase in productivity. It is questionable, therefore, that special efforts should be made by the Bank in this field. In fact, for the developing countries taken together, competition with primary commodities produced in developed nations may be of greater importance than competition with synthetics.

### Bank's Role in the Stabilization of Commodity Prices

This section is yet to be written. Nevertheless, I would like to express my agreement with the view that the stabilization of commodity prices lies outside the Bank's field of responsibility. This is essentially a short-term problem which could be more appropriately considered to be a function of the IMF. Neither should the Bank participate in schemes which would permanently raise the prices of primary goods since this would involve the use of the Bank resources without involving the Bank's scrutiny of economic policies and of the implementation of particular projects. For similar reasons, I am opposed to delegating project appraisal to local institutions in the case of diversification progress (Para. 6).

cc: Mr. A. Kamarck

Mr. D. Avramovic

Mr. I. Frank

Mr. L. Goreux

Mr. R. M. Sundrum

#### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL FINANCE CORPORATION

MAY 17 1968

Message from Peter Hole re Fund Board meeting on Commodity Stabilization Study:

- Particularly strong for Plescoff, Fabere, and Madan.
- Madan's point almost verbatim -- touched on by Schleiminger
- 3. Definitely favoring this were Plescoff, Nikoi, Schleiminger, Biron, Gonzales del Valle, Crispi. Latter part of sentence Kafka and Madan as well as above EDs.

# OFFICE MEMORANDUM

TO: Mr. McNamara

DATE: May 16 1968

FROM:

Irving S. Friedman

SUBJECT:

The IMF Discussion on Commodities

I am attaching some notes of a meeting on the IMF discussions on the Commodity Study outline which are self-explanatory.

It might be added that Plescoff, in the morning meeting, expressed the view that a Bank staff member should be present and was supported by Reid and Huntrods (the U.K. alternate). As a result of this intervention the Fund staff has been authorized to inform the Bank staff about the content of the Board discussion!

Four Executive Directors did not participate in the discussions -namely Dale (U.S.), Saad (U.A.R.), the Japanese alternate, and Tann (China). Dale informs me confidentially that he did not speak because he saw no particular point to having a discussion and the U.S. Government had no position on the issues raised. In response to query he indicated that the Germans were in favor of discussion, but emphasized that they thought Part II of the Study should indicate the whole range of possible solutions. He speculated that their motive might be to swamp any suggestion with an excess of alternative solutions.

No decisions were taken. The Acting Chairman (Mr. Southard) made no substantive remarks but indicated that the staff would continue its work.

The names of the Executive Directors written in the margins of the attached notes and whom you may not know, are:

Madan - India

Biron - Belgium (Alternate ED)

Friis - Scandinavia

Crispi - Italy

Diz - Argentina

de Villiers - South Africa

Kafka - Brazil

Schleiminger - Germany

We are continuing our work on this Study.

President has some

DOCUMENT OF INTERNATIONAL MONETARY FUND AND NOT FOR PUBLIC USE PRESCRIFT

PALE (45)

SAAD

JAPANESE ALTERNATE

To: Senior Staff

From: The Secretary's Department

Subject: Executive Board Meeting 68/90, May 15, 1968\*

# Stabilization of Prices of Primary Products (Provisional Outline)

Staff Representatives: Polak, Hirsch Discussion: 2 hours, 50 minutes

General view that contents of provisional outline of study comprehensive and broadly-based. Several ED's underlined crucial importance to LDC's at present time of stabilization of primary product prices in view of falling-off in level of foreign aid, disappointing results in UNCTAD II, overwhelming predominance of primary products in total exports of LDC's, and unfavorable price trends projected for many commodities in 1970's. Need observed for medium-term financial assistance to sound projects for price stabilization to complement existing long-term loans of IBRD and short-term balance of payments assistance of Fund. Majority of ED's favored presentation in Part II of study of fairly precise and concrete proposals covering whole spectrum of feasible solutions, and not merely general indications of possible future lines of approach. One ED emphasized that proposals should be seen as additions to, and not substitutes for, SDR's, compensatory financing facility, and other facilities of Fund.

Various observations in regard to study included:

- (1) One ED emphasized that solution would be likely to lie in field of buffer-stock arrangements and organization of commodity markets. He suggested that possibility might be considered of a pooling of finances of approved schemes, and Fund's acting as "banker" for these schemes, examining commodity trends carefully, and setting ceilings on finance that would be made available to each commodity. Several ED's suggested detailed case-study analyses of past arrangements as basis for possible proposals.
- (2) Need to examine nature of problem closely, and verify whether international schemes would be likely to contribute sufficiently to welfare of LDC's to compensate for effort and cost in establishing

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\*Précis for limited distribution; not basis for official action.

them. Noted that not all commodities suffered from price problem and suggestion made that analysis in Chapter II should be on commodityby-commodity basis. Some ED's wondered whether establishment of organized price schemes was compatible with ultimate solutions of diversification and economic development.

BIRON FRIIS

REID

(3) Importance of diversification in LDC's as long-run solution to avoidance of instability and adverse trends. One ED pointed out that diversification would assist buffer-stock schemes by restraining production of traditional commodities. Some ED's emphasized that CRISPI LDC's should exercise necessary discipline in regard to control, DIZ diversification, and improvement in efficiency of production. DE VILLIERS

(4) Need to examine effects of trade blocs on exports of primary producing countries. Some ED's thought that study should also be KAFKA broad enough to cover issue of trade preferences in industrial countries for exports of LDC's. ETC.

- (5) One ED stressed need to make distinction between stabilization of prices and stabilization of export proceeds, and observed 50 HLEIMINGER that study should concentrate on the latter.
- (6) One ED pointed out that stabilization problem had both short-run and long-run aspect and both needed to be studied. He felt that there had been an overemphasis in past on price fluctuations and insufficient attention paid to price trends.

(7) Some ED's doubted whether Fund could make direct contribu- SCHLEIMINGER tion to stabilization of prices of individual products, but recognized that it would be wholly consistent with Fund's purposes for it to assist individual countries to increase export proceeds in general. Some ED's thought it might be difficult for Fund to venture beyond provision of short-term financial assistance, but some other ED's stressed need for a flexible approach in regard to Fund's willingness to commit resources.

BIRON MADAN F7C

Discussion to be resumed in afternoon.

\* \* \* \*

Next meeting, same afternoon continue discussion of Stabilization of Prices of Primary Products.

No lapse-of-time decisions to be recorded.

POLAK

TO:

Senior Staff

F'rom:

The Secretary's Department

Subject: Executive Board Meeting 68/91, May 15, 1968, p.m.\*

# Stabilization of Prices of Primary Products (Provisional Outline)

Staff Representatives: Polak, Hirsch Discussion: 30 minutes

Discussion resumed. One KD pointed out that organization of commodity PLESCOFF markets would be consistent with role of international organizations in seeking to combat adverse "natural" developments; he suggested that the consistency of the Board of Governors' Resolution No. 22-9 with Article I(ii) should be mentioned in the study and he felt that it would be possible to arrive at proposals which would not require amendment of Articles of Agreement.

In responding to the discussion the staff said that the various suggestions made by ED's would be examined carefully. The staff felt that it would be inappropriate to include in Part II suggestions which the Fund could not adopt. As to the procedure with respect to Part II, the Board's discussion of alternative proposals might be facilitated if a form of draft text were prepared in some detail. However, it seemed unlikely that precise recommendations could be finalized for presentation to Governors in time for the 1968 Annual Meeting.

\* \* \* \* \*

Next Meeting, Friday, May 17, Pakistan -- 1967 Article XIV Consultation and Postponement and Rescheduling of Repurchases; Iraq -- 1967 Article XIV Consultation; and Guinea -- 1967 Article XTV Consultation.

\* \* \* \* \* \*

No lapse-of-time decisions to be recorded.

<sup>\*</sup> Precis for limited distribution; not basis for official action.

Mr. Irving S. Friedman

N. A. Sarma

# The Commodity Problem: Buffer Stock Financing and Supplementary Finance

Attached hereto is a paper for consideration, please.

cc: Messrs. Kamarck Issish Frank Sundrum Macone Jalan Adams I

In 1950, the developed market economies accounted for 60 per cent of total world exports, developing countries for 32 per cent, and centrally planned economies for 8 per cent: by 1962, the respective shares were 66 per cent, 21 per cent, and 13 per cent. In more recent years, the less developed countries have shared in the remarkable expansion of world trade, but less than proportionately. Over the years, exports of industrial countries to other industrial countries have expanded more than exports of less developed countries to them. In 1965 and 1966, the share of developing countries in total world exports was only 20 per cent. Developing countries account for over 60 per cent of world exports of petroleum and other fuels: in their own total exports, fuels constitute about 30 per cent, and form a distinct category, concentrated in a few countries. Omitting this item, the share of developing countries in world exports is a mere 15 per cent. The sluggishness of the exports of less developed countries is attributable mainly to the fact that primary commodities account for about 85 per cent of their total exports (30 per cent being fuels) and only 15 per cent are manufactures and semi-manufactures.

Industrial countries themselves have expanded their domestic output of several primary commodities, often assisted by protective policies, and trade increasingly among themselves in such commodities. The industrial countries' share in world exports of primary commodities has expanded from 47 per cent in 1950 to well over 55 per cent now. In certain items, developing countries are not able to compete effectively in export markets with the developed among primary producers themselves (Australia, New Zealand and a few others). In certain commodities export surpluses in developing countries are affected due to domestic consumption requirements which have been rising with population growth and higher income levels. On the demand side, generally demand for foodstuffs rises only at a modest rate even when incomes in industrial countries rise at 3-5 per cent a year. As for industrial raw materials, several items like jute, rubber, cotton, and wool face increasing competition from synthetics. In the early 'fifties, synthetics accounted for less than one-tenth of the consumption of industrial raw materials in industrial countries; the proportion has doubled by now. This is dramatized in the fact that for some years now the increase in world consumption of rubber has been taken up almost wholly by synthetic rubber. During a period when total consumption of rubber doubled, the share of natural rubber in the total declined from 63 per cent in 1953-55 to 50 per cent in 1957-61 and 36 per cent in 1965. More generally, with technological progress, there is greater economy in the use of materials. A way of assisting primary producers is to conduct systematic research for finding new uses for some of these commodities and thereby by some extent effect the consequences of technological progress which results in the development of synthetics and saving of raw materials in industry. Alser

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The trends in exports indicate that for most primary commodities no more than a steady rise in demand can be expected. So far as agricultural commodities are concerned, high income countries themselves are a net exporting group to less developed countries in livestock and cereals. For the rest, according to certain projections made by FAO, the net import demand of high income countries for sugar, fats and oils would show an absolute decline by 1975. For agricultural raw materials, including cotton, wool, jute, rubber, as compared to 1961-63, net import demand may decline somewhat or rise by about 10 per cent by 1975, depending on the assumptions made for the growth of gross domestic product in developed countries. For the group of tropical products (coffee, cocoa, tea and bananas), net import demand is projected to be one-fourth to one-third higher in 1975: the growth rate is placed at 2 per cent per annum for coffee and at 1.5 per cent for tea. Even on fairly optimistic assumptions of GDP growth in these countries, of 4.8 per cent per year, the growth in demand by 1975 over 1961-63 levels in the developed countries is placed at 2.1 per cent for tropical products, and at only 0.7 per cent for agricultural raw materials and for total trade in agricultural items. While these are but projections based on certain assumptions, and are by no means forecasts of what will happen, they serve to point up the rather poor prospects for the traditional agricultural exports of less developed countries to industrial countries. For, while a steady rise in income may be expected to continue in industrial countries, their population growth is slow, and the consumption of several commodities can only rise moderately; increasingly severe competition from synthetics affects the demand for other items.

Under such emerging conditions of demand especially, the price levels for the respective commodities importantly determine the level of export earnings of primary producers. If prices should fall, because of a rapid rise in output or for other reasons, the prospects for their foreign exchange earnings would be gloomy indeed. Even assuming continued expansion in the developed economies, unless production in the less developed countries is regulated, large stocks are likely to accumulate in some commodities; under the circumstances, price maintenance becomes as difficult as it is important.

From time to time, when export volume has risem, adverse price movements have affected exchange earnings of developing countries. In considering export and import prices in international trade, or the prices of primary commodities or manufactures in trade, no single index can be conclusive. While the available indices are used widely as a tool for analysing general world trade trends and problems, any conclusions derived are subject to qualification arising from the weaknesses and limitations of the indices. The available indices differ in coverage of commodities, weights, and price quotations taken. The years 1958-62 were a period of commodity slump. There was some recovery in 1963 and 1964, which has not been wholly maintained since, and today on the whole the export prices of primary commodities for developing countries have not recovered to the 1958 level. The prices of manufactures have been more steady, and have tended to rise since 1959. By and large, primary commodity export prices for less developed countries in the years 1963-66 (i.e., the years of recovery,

after the slump period) are lower than in the four-year period 1954-57 (i.e., pre-slump period, and well after Korean boom phase ended). Again, the predicament of individual countries that depend on one or two primary commodity exports when the prices of these items fall steeply is not reflected in any or all of these indices. The so-called commodity concentration exposes several countries to a high degree of volatility in their foreign exchange earnings.

The stabilization of prices and markets for primary commodities could be attempted in a series of commodity agreements covering the main cereals, fibers, beverages, vegetable oils, rubber, minerals and metals. While there has been extensive discussion of the subject in prewar as well as postwar years, and several attempts to conclude agreements have been made, such agreements have proved possible only in a few cases; effective implementation has been even more limited. Through the removal of tariff and non-tariff obstacles to trade in these commodities, the developed countries can enlarge the market opportunities in their economies for exports of these commodities from less developed countries: there has been little progress in this direction. Basically, a measure of discipline both in the consuming countries in regard to their production of several of these commodities and in producing countries by way of regulation of production and export quotas, is called for if commodity arrangements of one kind or another are to prove a practicable instrument. The building up of stocks and market operations based on them would also be helpful in some instances.

A feature of commodity agreements is the provision for export quotas, as a main device for supply regulation. Behind such export quotas usually lie national stocks, private inventories in the hands of producers (and consumers), and production controls. An international buffer stock is another useful device, under appropriate safeguards, which, through active intervention in the market, can reinforce the effectiveness of sales quotas. Experience in this regard, however, is virtually limited to tin, though it is sometimes held that the sugar agreement also had buffer features. Neither is typical, nor operative now. The tin buffer (commodity) is exhausted, and the relevant provisions of the sugar agreement remain suspended. In recent discussions for a cocoa agreement, there has been advocacy of the idea that buffer stock maintenance and management would facilitate the evening out of price fluctuations and the effectiveness of any agreement reached. The suggestion has been made that a fund of \$100 million could be accumulated over a five-year period by levying a 1-cent charge per pound of cocoa entering international trade, payable by exporter or importer. If some initial buffer stock fund could be set up from outside sources, by way of loan finance, of the order of \$80 million, it is believed that over a few years this could be repaid at \$10-12 million a year. However, there is no existing facility for such initial financing of buffer stock build-up. From time to time approaches have been made to the World Bank for buffer stock financing in respect of sugar, tin, cocoa. The Bank Group has taken the view that, being a long-term financing agency, it cannot undertake such short-term financing of stocks; that, in any case, Bank Group operations are concerned with productive development projects. Nor do the Articles of Agreement of the Fund permit such financing.

No international buffer stock management and financing can be contemplated to sustain a continuing over-production; essentially it can

only deal with temporary phases of excess production or market shortages. Thus, producing countries have to take various steps to prevent overproduction and, if wasteful over-production should persist, they themselves have to carry the burdensome surpluses or even destroy them. In the past this has proved very difficult; and it is this known feature about various commodities that makes it difficult to arrange for any private bank finance for buffer stock financing, and even if it could be arranged for, renders it very costly. Thus, the necessary degree of control over production and supply regulation becomes a prerequisite for successful operations in stock management. Nor can international buffer stock arrangements be effective by themselves without export or sales quotas. The controlling instruments are the core of a commodity agreement, especially those for holding the price within the specified range. The determination of the price level at which the market is to be stabilized and the operational effectiveness of instruments of stabilization depend. above all else, on regulation of supply.

As buffer stock operations involve absorbing surpluses or selling the commodity for cash, according to where market price stands in relation to agreed price range, the buffer stock must have both the commodity and cash. A buffer stock cannot undertake to absorb all surpluses, but only up to quota limits, i.e, where a country has not been able to sell the quota specified for it. While purchases have to be initially at floor prices, and sales at maximum prices set, quotas themselves can be variable and purchases and sales may be at declining or rising prices. At the same time, a buffer stock should have resources adequate to take care of normal swings in supply and demand, and to make an impression on buyers and sellers in the market about the management's ability to protect the price range.

Apart from the more general economic, administrative, and financial questions involved in any stock management, the particular characteristics of production and marketing of each commodity raise specific problems: in some agricultural commodities (e.g., jute, sugar, oil seeds) there are often wide seasonal variations in output and corresponding swings in prices, unless countered; in some instances there is a steady diversion of demand to man-made materials that are price competitive (e.g., fibers and rubber); the perishability of a commodity (e.g., bananas) rules out any stock building; the time taken in increasing or reducing supplies in response to market developments (e.g., zurubber tree is not ready to be tapped for 6-7 years, and not fully productive for 12 years, after planting); inability of producing countries to step up the mining of some minerals quickly: the existing preferential market arrangements (e.g., sugar); continuing over-production (e.g., coffee), or relative ease of overproduction developing (e.g., cocoa). Then, there is the problem of costs of management. Storage costs are likely to be heavy for commodities that have low value per ton. If a buffer stock amounting to 25 - 30 per cent of annual trade--in some instances or in certain periods even a higher proportion has to be envisaged--is to be maintained, storage costs can assume sizeable proportions. Further, many of the commodities, especially agricultural ones, are subject to physical deterioration, which requires

the stocks to be turned over periodically, every two years or so; the buffer stock may otherwise suffer more than marginal loss due to sales being of poorer quality materials than purchases. These factors may add up to 3-5 per cent cost annually. Under the circumstances, if loan financing is not at very reasonable rates, buffer stock management may prove unduly costly. Buffer stock arrangements that may be built into a commodity agreement, therefore, require careful study in detail.

Accordingly, taking into account the validity of international buffer stock arrangements as a useful control device for a commodity agreement, the inability of contracting parties to commodity agreements over the years to incorporate this feature except in one or two cases, the characteristics of individual commodities and the cost factors noted above, a positive but realistic approach may be envisaged toward the question of (initial) buffer stock financing. An international agency, with sufficient funds, may stand ready to take care of the initial buffer stock finance needs of one or two commodity agreements (e.g., cocoa), after the producing and consuming countries have agreed on the other essentials of a commodity agreement (especially on questions relating to price range and sales quotas), and after examining the question on merits. As experience is gained, and as additional resources are built up, the scope of financing activities may be extended to other commodities. It seems important that such initial financing should not be for very short periods of 3-5 years but for somewhat longer terms so as to enable the buffer stock to build up its own resources by means of levies on producers and consumers, and through any profits from sales, and repay the agency in convenient instalments. Such financing should also be at very reasonable rates of interest.

As for the means of financing, it is suggested sometimes that industrial countries may transfer part of the proceeds from existing excise taxes or customs duties they levy on primary commodities imported from less developed countries. With a view to protecting domestic producers and/or for revenue purposes, most industrial countries levy excise duties on items like sugar, tobacco, coffee, cocoa, tea, oil seeds and oils, petroleum and products. Where an item is imported mainly, they are hardly distinguishable from customs duties. The taxes are high in individual countries on particular items such as: tobacco and vegetable oils in U.S.A.; tobacco and sugar in Netherlands, U.K. and Japan; coffee and tea in Germany; tobacco in France; sugar, tobacco and coffee in Italy. Petroleum is a common item for most countries, and so is tobacco to a great extent. Such so-called fiscal charges are estimated to be of the order of \$6 - \$7 billion of which over one-half is accounted for by petroleum and products. Tobacco is the other main item, followed by coffee and sugar. Yet another suggestion is that a minimum price may be agreed upon for each commodity and when price falls below this level, a levy be made at the entry point in importing country, and the proceeds be utilized to reimburse the less developed country concerned. Or, as part of a commodity agreement, provision may be made for a small charge on imports of a commodity into developed countries and the collections may be turned over to an agency for buffer stock operations.

Whatever be the particular course adopted to raise the required resources for buffer stock management, it is generally recognized that both producing countries and consuming countries should contribute to the financing involved. Secondly, while alternative procedures may be adopted to suit the circumstances and purposes of individual commodity agreements, it would seem unrealistic to have recourse to any such specific means of financing to obtain the resources for an agency that is to take up only initial financing on a loan basis. General, budgetary, contributions from governments would seem to be appropriate for this purpose.



The volatility and uncertainty of export earnings from their primary commodity trade has been a main problem faced by developing countries. While price stability is needed, what is important is the stability and growth of export earnings. Commodity agreements would help to mitigate the amplitude of fluctuations, but cannot by themselves meet the problem, especially of shortfalls in export earnings; more general, financial approaches also become necessary. Thus, compensatory and supplementary financial assistance, the former to meet the volatility aspect of export earnings, and involving essentially short-term assistance, and the latter to meet the uncertainty aspect and involving essentially longterm assistance, would be helpful. These financial arrangements and commodity agreements become complementary to one another and reinforce their effectiveness mutually, so that development programs of countries can go forward uninterrupted by export shortfalls. In both, in a rather pragmatic framework, one can visualize commodity agreements for a few major commodities in which the developing countries are the chief exporters, like coffee and cocoa, and for the rest devise appropriate financial arrangements to take care of the levels of total export earnings of developing countries.

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All these above approaches, which seek to build on established patterns of economic activity, would help, and are needed, but they do not provide an enduring solution to the commodity problem of developing countries, for the commodity problem essentially reflects their low level of economic development, and only sustained economic growth is the real solvent, which results in a gradual expansion and diversification of their export trade and reduces the undue dependence of many of these economies on one or two commodities. The growth and diversification of exports in turn is predicated on correcting the structural imbalances in these economies and promoting productive efficiency. This diversification has to be partly in the agricultural sector itself, especially toward food production, in view of the serious food shortages developing in several less developed areas, but should certainly be in part through industrialization, so as to secure continued improvement in export earnings. The commodity problem cannot be dealt with apart from or in isolation from the larger, basic, development problem -a task to which the World Bank Group is addressing itself.

Thus viewed, commodity agreements and supplementary finance proposals may be seen clearly to be complementary, in pursuance of the same objectives that derive essentially from the requirements of long-term economic growth. The World Bank Group, when called upon by governments, is likely to accept the administration of supplementary finance. The financing of buffer stocks is a related aspect, being a helpful control instrument in commodity agreements: although buffer stock financing raises various financial and administrative issues and may not be feasible always, and needs to be carefully examined in each case. It may be undertaken by a separate agency or by the agency entrusted with

supplementary finance; there may be some advantage in entrusting the two to the same agency. Such being the case, can the World Bank Group disassociate itself from extending a prudent measure of financial support to commodity agreements through providing initial finance for buffer stocks in appropriate cases, so as to promote the successful conclusion of commodity agreements?

Mr. Robert S. McNamara

Irving S. Friedman

Study on Problems of Stabilization of Prices of Primary Products - Scheduled INF Meeting

On April 18, 1968, we circulated to our Executive Directors the outline of the joint analytical Part I of the study requested by the Board of Governors on Commodities at the Rio meeting. At the time it was not clear whether the IMF Executive Directors would wish to have a discussion of this outline. In the Bank we had agreed that Mr. Avramovic and myself would make ourselves available to the Executive Directors for informal discussions of the outline if they so wished, and this was passed on to Mr. Shoaib. Thus far the Executive Directors have not requested such discussions.

The other day Mr. Avramovic, who is heading our team on the study, informed me of rumors that the IMF Board might be discussing the outline. Mr. Shoaib undertook to sound out some of the Executive Directors informally on the desirability of some form of discussion of the outline by Bank Executive Directors, if the IMF Executive Directors were to have such a discussion. Mr. Shoaib talked to Messrs. Ayub, Chen and Suzuki, who felt that there ought to be some sort of Bank discussion by its Executive Directors, if the IMF Executive Directors had a discussion, since both institutions had been asked by their Boards of Governors to carry out the study and both staffs were doing the work.

We are now informed that the circulated outline of Part I will be discussed by the IMF Executive Directors next Wednesday, May 15. After discussion with Mr. Shoaib I recommend that you inform the Bank Executive Directors at the next Board meeting of the discussion of this outline by the IMF Executive Directors and ask them whether they would like to have a formal or informal discussion of this paper.

I am attaching a copy of the provisional outline circulated on April 18, for your convenience.

ce: Mr. Shoaib Mr. Avramovic

#### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

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SecM68-106

FROM: The Secretary

April 18, 1968

# STUDY ON PROBLEM OF STABILIZATION OF PRICES OF PRIMARY PRODUCTS

- 1. As indicated in the Memorandum SecM67-285, dated October 30, 1967, a group of staff members from the Bank and Fund has been preparing material for a joint analytical Part I of the study requested by the Board of Governors under Resolution No. 239 adopted at the Annual Meeting in Rio de Janeiro. While it is not yet possible to envisage the final content or shape of the report, the attached provisional contents outline is circulated for the convenience of Executive Directors. Significant changes in content and coverage are likely to occur in the course of completing and reviewing of the final report.
- 2. As indicated in the Memorandum SecM67-285, Part II of the report will discuss the possible role that the Bank can play in contributing to the solution to the problems discussed in Part I. The Fund staff will prepare a parallel section on behalf of the Fund. Close consultation between the two institutions will be maintained in preparing the separate sections.

## Distribution:

Executive Directors and Alternates President President's Council Executive Vice President, IFC Vice President, IFC Department Heads, Bank and IFC Secretary, IMF

STUDY ON PROBLEM OF STABILIZATION OF PRICES terrese to a clos decline. OF PRIMARY PRODUCTS The cosmodity problem is a part of the general problem of Provisional Outline NOTE: The attached draft outline has been prepared by the joint Fund-Bank working group as a basis for the organization of its work on this study. The outline is of course subject to such revisions, as regards both addition and deletion, as may appear appropriate in the course of the work. rail to produce for the existing interpational demand, whether the levers induced by inappropriate demestic policies The General Setting (Chapter I) 1. The problems of instability and of adverse trends in the exports of less developed countries have been studied intensively over a long period of time from many points of view with limited progress toward a solution. However, there are some new elements in the present situation, which may lead to a more effective attack on the problem: (a) A general recognition that the solution of some of the problems of commodity trade is intimately connected with the development efforts of the less developed countries, concerning both the choice of development strategy and the ability to finance the

chosen pattern of development.

- (b) An important consequence of recognizing policies relating to commodities as the means of promoting the economic development of the poor countries is that in participating in international commodity negotiations, exporting and importing countries may be urged to take account of the major interests of development, and not only of the interests of the respective producers and consumers of individual commodities.
- (c) One important question, which needs careful investigation, is the possibility that certain international policy actions related directly to commodity trade may provide donor countries with a more convenient vehicle for the transfer of development assistance to the less developed countries, as indicated in some aspects of the proposals for an organization of markets.
  - Foreign exchange receipts of developing countries derived from primary products have varied from year to year. Over the longer run, trends in export receipts of the LDC's, taken as a whole, have shown slow growth: slow relative to the growth of world trade and slow relative to the increase in imports required to sustain a satisfactory rate of growth

in these countries. For individual primary products and for individual countries, trends have ranged from a rapid increase to a slow decline. For many products, the demand rises slowly and in a fluctuating manner.

- 3. The commodity problem is a part of the general problem of development. Fluctuations and adverse trends reflect the excessive dependence of low-income countries on primary products and their limited flexibility of shifting resources to more productive uses. The problem is compounded further by restrictions on market access, which throw the burden of adjustment on the low-income countries whose resource mobility and therefore the capacity to adjust is severely limited.
- 4. Not all external difficulties of developing countries result from weak commodity trends: a particular country or a group of countries may fail to produce for the existing international demand, whether the latter increases slowly or rapidly, while increases in imports are frequently induced by inappropriate domestic policies. Foreign exchange difficulties which are caused by inadequate supplies of primary products in strong demand in external or domestic markets of the low-income countries or by bursts of their import demand cannot be attributed to the commodity problem.
- Wide price fluctuations and weak price trends are serious insofar 5. as they cause instability and adverse trends in countries' export earnings and purchasing power and affect the competitive position of primary products. The ultimate solution for excessive dependence by less developed countries on products with sluggish long-term growth in demand, or with wide price fluctuations or wasteful cobweb-type supply responses, lies in the acceleration of economic growth and of diversification in the low-income countries. The question is whether intermediate solutions can be found: they should reduce fluctuations in earnings and prices, improve long-term earning capacity, and at the same time facilitate (and certainly not make more difficult) the resource shifts necessary to accelerate growth and diversification. The problem is whether and through what means these objectives can be made mutually consistent. Effective action on the earnings of primary producers may, according to differing conditions, demand a combination of approaches, in fields including price stabilization, international fiscal action, improved market access, etc.
- 6. One of the major consequences of the commodity problem for the LDC's is the impact on their balance of payments position in the short run, as an adjunct to the pursuit of long-run development policies. As such, it is a factor affecting the role of the IMF in relation to these countries.
- 7. At the same time, the commodity problem is also a part of the general problem of development. Here, it is a factor affecting the role of the IBRD in relation to these countries.

## Trends and Fluctuations in the Commodity Trade of the LDC's (Chapter II)

- 8. Summary presentation (rates of growth and measures of instability) of prices, quantities and values of exports of major commodities and of individual developing countries. Both short-term and periodic fluctuations should be discussed.
  - 9. Analysis of results. Not all commodities suffer from the commodity problem: there are primary products—e.g., petroleum, aluminum—for which demand rises rapidly, price fluctuations are limited, and supply is adjusted with relative speed to demand trends and demand fluctuations. There are also commodities whose price fluctuations are very wide, but the underlying demand trend is strong (e.g., copper). In many cases, however, a relatively slow growth in demand is combined with price variations; and in the case of agricultural products, cobweb—type supply reactions may cause a continuing sequence of over— and under—production.

## Causes of Adverse Trends and of Instability (Chapter III)

- 10. Relationships of price, volume and value. Condition of demand and supply in world markets for primary commodities. Some illustrative statistical analysis of demand and supply functions for export.
- 11. Demand factors underlying long-term trend. Supply factors underlying trend-the long-term tendency of developing countries to over-crowd the markets of primary products due to absence of alternative employment opportunities. The role of synthetic substitutes and of limitations on the access to markets.
- 12. Factors involved in cyclical and irregular fluctuations. Relationship of price fluctuations to fluctuations in export earnings and producers' incomes. Relative importance of demand-induced and supplyinduced instability.
- 13. Summary examination of factors behind major short-term declines in export earnings experienced in this period.

# Consequences of Adverse Trends and of Instability (Chapter IV)

- 14. Effects of adverse trends on import capacity, income growth and possibly on production and investment patterns. Effects on ability to finance development. Experience of the Bank with member countries.
- 15. Impact of instability on producers' decisions—cobweb effects. Impact of instability on the demand for primary materials—the competitive position of primary products vs. synthetics.
- 16. Impact of fluctuations in prices and export receipts on payments difficulties and on the maintenance of internal equilibrium—issues arising for national authorities in domestic financial policies and on balance of payments adjustment with unstable commodity markets—experience of the Fund with member countries.

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## International Commodity Policies: Past Experience and Proposals (Chapter V)

- 17. A brief review of general approaches to stabilization—the Havana Charter—the UNCTAD approach—the organization of markets—other approaches. The case for a commodity-by-commodity approach.
- 18. Techniques of commodity stabilization—application of these techniques in the postwar period. Problems of negotiation and problems of effectiveness of the techniques themselves.

### Measures for Dealing with Fluctuations Around a Trend (Chapter VI)

- 19. The concept, distinguished from price leverage. Various techniques available--buffer stocks--and other or supplementary techniques to influence prices, quantities, and earnings, including quotas, levies, buffer funds, multilateral and bilateral contracts and market access. Particular conditions of elasticities, pattern of fluctuations, commodity characteristics, favoring alternative techniques. Effects on export earnings/availabilities, producer earnings and on trend.
- 20. Buffer stocks: criteria for establishment of buffer stocks (physical and economic). The problems of management, price adjustment (moving average vs. steps), relationship to commercial stocks. Financial aspects of buffer stocks under various alternatives.

# Measures for Improving the Level and Trend of Earnings (Chapter VII)

- 21. Different ways of improving the level and trend of export earnings: improvement of access to markets, improvement of the competitive position of primary products in relation to synthetics, stimulation of exports of manufactured goods from developing countries, management of supply of primary products.
- 22. The concept of remunerative prices, the concept of adverse trends defined in relation to the possibilities of improving the trends.
- 23. Conditions under which supply management is feasible and appropriate. Techniques of supply management: export restrictions with or without production controls; export levies; diversification; import levies in developed consuming countries for transfer to developing producing countries. Link with buffer stocks. The efficiency problems. Suitability of particular commodities to supply management and to different techniques of management, depending on the characteristics of commodities. Implications among producing countries and consuming countries.
- 24. Side effects of supply management--problems relating to new producers, terms of competition, etc.
- 25. Financial implications of supply management for the exporting and importing countries.

### The Problems and Prospects of Diversification (Chapter VIII)

26. Diversification as part of over-all development policy. Different concepts of diversification—in the broad sense (development of new activities without displacing factors of production from the existing activities) and in the narrow sense (displacement of factors). Experience with diversification. The most acute cases. The localized cost (nationally) and the widespread benefits (internationally) of diversification. Financial aspects of diversification in the narrow sense. Who should diversify? The need for international decision—making in diversification in order to avoid emergence of surpluses in alternate products. The link with internal price policy within the developing countries.

### Summary (Chapter IX)

27. A summary review of the analytical report (Part I) with special reference to the differing financial implications of the various approaches discussed.

PART II

(Bank)

Implications for possible actions by the World Bank Group.

PART II

(Fund)

Implications for possible actions by the International Monetary Fund.

Mr. Robert S. McNamara

Irving S. Friedman

### Study on the Stabilization of Prices of Primary Products

Pursuant to my memorandum of April 16, we understand that Mr. Schweitzer announced today to the Fund Board that the outline of the study will be circulated shortly. Considerable interest in the outline was expressed by the Executive Directors for Canada and for some Latin American countries.

I recommend that you announce at tomorrow's Board meeting the circulation of the outline to our Board.