Mr. Robert S. McNamara

Irving S. Friedman

Study on the Stabilization of Prices of Primary Products

Attached hereto is a draft outline of our Study on the Stabilization of Primary Products, which has been prepared by the Bank and the Fund in response to the Rio Resolution of last September. It already incorporates comments received from the Senior Staff and has not been circulated sooner because we were waiting for the Fund staff to have a chance to clear it with Mr. Schweitzer. I recommend its circulation to the Executive Directors.

As you are aware we are trying to do a joint study with the Fund on Part I dealing with the economics of the problem, and Mr. Avramovic is heading up the Bank group on this matter -- he has been in close touch with the Fund staff. They are now clearing this draft outline with Mr. Schweitzer, before sending it to their Executive Directors.

It will be noted that the attached draft outline is quite comprehensive and even ambitious, but only covers Part I. We will probably delete or treat lightly some of the material, as indicated in the head note.

You may wish to announce to the Board at the next meeting that the outline will be circulated. We understand that Mr. Schweitzer may communicate this to the Fund Board on April 17.

In response to a request from Mr. Donner, Mr. Woods promised that there would be a Board discussion of the outline. This is likely to be a difficult discussion, if for no other reason that that it will involve complex technical issues, with sensitive policy implications.

Attachment
STABILIZATION OF PRICES OF PRIMARY PRODUCTS

The attached draft outline of the study of the above problem which is being prepared by the Bank and Fund in response to the resolution adopted at the 1967 Annual Meetings is circulated for comments, which should be given to Mr. Avramovic as soon as possible.

C. H. Davies
Secretary

Distribution:
Senior Staff, Bank and IFC
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.

PART I

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 towards 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.

2. 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.

5. Wide price fluctuations and weak price trends are serious insofar 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)


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.


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.

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.

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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.

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24. Side effects of supply management -- problems relating to new producers, terms of competition, etc.

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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.

Joint Fund-Bank Working Group
March, 1968
Mr. Avramovic

Irving S. Friedman

Commodity Study

At yesterday's Board meeting Mr. Mejia-Palacio said that he hoped that the problems of fats and oils would be included in our Commodity Study.
OFFICE MEMORANDUM

TO: FILES

FROM: Andrew M. Kamarck  A. M. Kamarck (signed)

DATE: March 21, 1968

SUBJECT: Buffer Stock Financing by the Bank

At lunch on March 20 with Mr. Avramovic we talked about the Rio Commodity Study. Mr. Avramovic said that he had not yet been able to get a clear answer as to whether the Bank could undertake buffer stock financing and the Fund did not seem to be able to make up its mind as to whether it wishes to undertake it. I suggested to Mr. Avramovic that we might consider the following idea:

That the Bank sponsor a new fund or agency to do buffer stock financing. This would be funded by a grant from the Bank's profits and contributions from developed countries on the model of the U.S. offer to the ICO for the Diversification Fund.

It seems to me that the Bank, like other public or private corporations, can use its profits, in lieu of paying dividends, in any way the shareholders agree. Several years ago the Bank decided to make a grant of around $10 million, if I remember the figure correctly, for educational purposes. This was never used because on second thoughts the Bank decided this would put us in the foundation business and we were not qualified to so operate. If we can make a grant for education, we can certainly make a grant to finance a buffer stock financing agency, if our shareholders agree that this is to the benefit of the developing countries.

There is at least one industrialized country that regards this commodity field as important; and other countries could also be approached to make a special contribution for such a purpose. It may be that the IMF would also be willing to make money available out of its profits for this purpose.

cc: Mr. Friedman
   Mr. Kalmanoff

AMK:ner
STABILIZATION OF PRICES OF PRIMARY PRODUCTS

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Joint Fund-Bank Working Group
March, 1968
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**REMARKS**

In connection with our conversation now, I would appreciate it if you looked at this before I send it out.

From

Dr. Anna Pavlovic
Mr. Benjamin B. King

Dragoslav Avramovic

Rubber -- Compensation for Declining Commodity Prices

March 6, 1968

1. In connection with your work on policies on the use of IDA funds, I should like to bring to your attention a special problem which has arisen in connection with the recent developments in the world rubber market.

2. An UNCTAD Exploratory Meeting on Rubber was held in Geneva in December 1967, to examine the difficulties arising in international trade in rubber; the price of natural rubber has declined sharply over the past years and the rubber producing countries are arguing that this has had serious repercussions on their export earnings.

3. The meeting has adopted a series of recommendations. Among these are the following of direct concern to the Bank Group:

   (i) "UNCTAD should invite the International Bank for Reconstruction and Development and the International Monetary Fund to study appropriate financial measures which might be introduced to compensate natural rubber producers for their loss of foreign exchanges, possibly within the context of the resolution relating to the stabilization of commodity prices adopted at the joint meeting of the Boards of Governors of the IBRD and IMF held at Rio de Janeiro in September 1967.

   (ii) "At the request of the countries concerned, financial and technical assistance should be provided by international financial organizations and governments of States members of UNCTAD within the framework of their assistance programs for the following objectives:

(a) The improvement of collection, collation and dissemination of statistical data;

(b) the formulation and implementation of national plans for rubber within the framework of overall economic development;

(c) the improvement of the efficiency of the natural rubber industry, for example by reduction in cost, improvement in quality, presentation and marketing and development of new uses for natural rubber and technical services."
4. Dr. Prebisch, the Secretary-General of UNCTAD, wrote to Mr. Woods on February 7 in connection with the above; his letter and Mr. Woods' reply of March 1 are attached.

5. The recommendation under 3(ii) raises several problems. But the most difficult issue is that under 3(i) -- in effect a request for special compensatory assistance to countries suffering from a decline in foreign exchange earnings due to a fall in the price of a major export commodity, which apparently is not expected to be reversed.

6. As I see it, the question revolves around three issues:

(a) Should a country facing a serious adjustment problem due to export difficulties which are expected to be prolonged obtain special consideration in the allocation of World Bank Group resources;

(b) If the answer to (a) above is positive, should such special consideration be reflected in especially favorable terms on which the finance is provided;

(c) If the answer to (b) above is positive, should such especially favorable terms in practice mean that the country should be entitled to draw on IDA funds even though it may not satisfy other IDA lending criteria (e.g., poverty).

7. The problem would, of course, not arise if we had a special compensatory facility with long periods of repayment, but we do not. The Compensatory Facility of the Fund is designed to take care of reversible shortfalls; therefore, it is doubtful whether it would be applicable in these cases. Also, this facility is repayable over the medium term. The Supplementary Financing Scheme is not yet in existence; but even if it were, it would not apply if the decline in export earnings had been foreseen.

8. It is, of course, possible to argue that "special export difficulties" are only one of the factors to be taken into consideration in making World Bank Group lending decisions, and not necessarily the decisive factor. But this is unlikely to sound very convincing to the countries affected (or to others) unless it is spelled out in detail. What is haunting us is the old problem: how much weight should one attach to external financial difficulties caused by factors outside producing countries' control, as opposed to the difficulties in mobilizing resources due to poverty and low savings?

9. We have to take a position on the problems of the rubber producing countries fairly soon. I would appreciate it if you gave it high priority in your deliberations. Could the affected countries be considered candidates for IDA assistance, perhaps on somewhat different terms than the IDA terms applicable thus far? If not, is there any other special consideration that can be given to them?

AVR/151
Attachments - 2
cc: Mr. Irving S. Friedman
March 1, 1968

Dear Dr. Prebisch:

I have received your letter of February 7, 1968 transmitting to the Bank the conclusion of the UNCTAD Exploratory Meeting on Rubber of December 1967 that it would help to relieve the problems facing the producers of natural rubber if the International Bank for Reconstruction and Development and the International Monetary Fund "study appropriate financial measures which might be introduced to compensate natural rubber producers for their loss of foreign exchange, possibly within the context of the resolution relating to the stabilization of commodity prices adopted at the joint meeting of the Boards of Governors of the IBRD and IDB held at Rio de Janeiro in September 1967."

The study which will flow from the Rio Resolution is presently under way at the staff level of the Bank and its final form and content will not be determined for some time. We are, of course, keenly aware of the difficulties created for the rubber exporting countries as a result of the sharp decline in prices since 1965. While there are practical limits to the degree to which our study can explore solutions to problems of individual commodities, I assure you that we will nevertheless take the Exploratory Meeting's conclusion into account in the context of our work on the study.

The study by the Bank staff entitled "Supplementary Financial Measures," completed in 1965, together with the additional papers developed at the UNCTAD meetings that have considered that study, may also be of interest to countries in considering possible ways of dealing with the problems addressed by the Exploratory Meeting.

Sincerely yours,

(Signed) George D. Woods

George D. Woods

Dr. Raul Prebisch
Secretary-General
United Nations Conference on Trade and Development
Palais des Nations
Geneva, Switzerland

AJMacone:GDWoods:ker
February 29, 1968
Messrs. Friedman, Dannish, Kamenick, Avramovic
Dear Mr. Woods,

An UNCTAD Exploratory Meeting on Rubber was held in Geneva in December 1967, to examine the difficulties arising in international trade in rubber. As you know, the price of natural rubber has declined sharply over the past years and this has had serious repercussions on the export earnings of natural rubber producing countries.

The Exploratory Meeting, having reviewed the world rubber situation and considered a number of proposals for action submitted by the natural rubber producing countries, concluded that the adoption of certain measures would help to relieve the problems facing the producers of natural rubber. These measures are outlined in the concluding paragraph of the Report of the Exploratory Meeting on Rubber which was issued as UNCTAD document TD/39 dated 22 December 1967.

I am addressing this letter to you to draw your attention to one of the measures recommended by the Exploratory Meeting, which specifically refers to the International Bank for Reconstruction and Development. The relevant paragraph of the report to which I refer reads as follows:

"UNCTAD should invite the International Bank for Reconstruction and Development and the International Monetary Fund to study appropriate financial measures which might be introduced to compensate natural rubber producers for their loss of foreign exchange, possibly within the context of the resolution relating to the stabilization of commodity prices adopted at the joint meeting of the Boards of Governors of the IBRD and IMF held at Rio de Janeiro in September 1967."

Mr. George D. Woods
President
International Bank for
Reconstruction and
Development
1918 H Street, N.W.
Washington, D.C. 20433
I would be grateful if you could advise me at your earliest convenience whether the International Bank might be in a position to undertake such study. I would also welcome any views which you may have on this subject.

Raúl Prebisch
Following your request, I have attempted to summarize the present state of the work in the Bank. To facilitate an assessment of the progress made, this review is presented following the five headings used in my oral presentation in the Department meeting and my note to Hirsch of November 3. Following the meeting of December 15th, a new note could be written.

There is an option between attempting to present an exhaustive picture and illustrating the general problems by well selected examples. For example, efforts could be geared to the estimation of the cost of buffer stock operations for as many commodities as possible or to the understanding of buffer stock operations on few examples. In the case of diversification, one could study the problem in as many countries as possible or concentrate efforts on a few countries and a few commodities within the framework of existing world projection studies. Even, if a figure on the total cost of the schemes to be ultimately proposed will have to be produced, I am not sure that, within the time limit given, the first solution will lead to a much better estimate than the second.
OUTLINE

1. Review of price stabilization measures at the national and international level; past experience and proposals made.

2. Diversification, scope and problem.

3. Analysis of fluctuation.

4. Review by commodities.

5. Buffer stocks.

6. Others

ATTACHMENTS

1. Note to Hirsch (November 3).

2. Avramovic memo (December 4 and 5).

3. Statistical analysis (December 11).

4. Buffer stock model (December 4 and 5).
1. Review of price stabilization measures at the national and international level; past experience and proposals made

As mentioned in my note to Hirsch of November 3, it was understood that the Fund will play the leading role in this field. Consequently, nothing has been done in the Bank apart from general reading.

2. Diversification

The Projects and Area Departments have been asked to express their views on past experience and prospects for diversifying from the production of surplus commodities to other activities. Meetings were held with the Projects, Western Hemisphere and Africa Departments. (See Avramovic's memo of December 4th and 5th; some idea about a diversification scheme are also outlined in my Princeton paper, pp. 17-20). A note has already been received from the Projects Department, brief notes by countries are to be delivered by the Area Departments by the first half of January.

The issue of diversification should be stressed for two reasons: First, short-term measures (buffer stock operations for example) have to be associated with long-term measures on production to correct basic disequilibrium in resource allocation. Second, the expertise of the World Bank Group is in the investment field and, therefore, in long-term rather than short-term operations. The practical problem is to decide what could be said about diversification in the study.

Presenting a blueprint of diversification for the LDCs is out of the question. This would require the preparation of a world indicative plan for the entire economy within a couple of months. I feel that we should limit ourselves to the general description of how the scheme could work and to illustrations based on a few well selected case studies. I would, therefore, suggest to concentrate efforts on the general issue on the one hand, and on few selected countries on the other.

3. Analysis of fluctuations

The statistical analysis covers the period 1950-65; it includes a two-way stratification of exports by country and major commodities for a sample of 20 countries and 37 commodities. Fluctuations are measured as deviations from the trend; their amplitude is characterized by two indices.²/ Exports are expressed in terms of volume, terms of trade and import capacity of exports. To simplify, they are referred to as quantity (Q), price (P) and value (V = PQ).

The analysis by country and by commodity leads to the value of trends and fluctuations for quantity, price and value, and to relations between the fluctuations of quantities and prices; the latter could be visualized as the elasticity of quantity in relation to price. This analysis indicates to which extent

¹/ A review of the preliminary findings of the FAO, IWP and the tripartite coffee study might be useful.

²/ Average percentage of the absolute deviation from the trend (the simplest concept). Standard deviation of the logarithm of the estimate over the mean.
fluctuations in exports earnings were due to fluctuations in volume or in prices, and to which extent fluctuations in prices offset or accentuated fluctuations in quantities.

The commodity tables show for each of the 37 selected commodities total LDC exports together with the exports of those of the 20 selected countries for which the commodity concerned is important (more than 5 percent of total exports earnings of the country). Fluctuations in the average export unit value for the LDC's are compared with fluctuations in spot prices.

The country tables show, for each of the 20 selected countries, the main export commodities (accounting for more than 5 percent of total exports earnings), total export earnings, GDP, GDP per caput, total imports and imports of equipment goods. They provide a basis for analyzing the relationships between trends and fluctuations in exports earnings--fluctuations in prices in particular--and growth of imports and GDP. They also provide a basis for assessing the impact on specific countries of stabilization measures which could be applied for selected commodities.

This general statistical analysis will provide a quantitative frame for assessing the amplitude of export fluctuations and their impact on LDC's growth. It will also provide the starting point for studies in depth for a few selected countries and for a few selected commodities; such "case studies" could be used as illustrations for the interpretation of the overall statistical picture.

The statistical analysis to be followed is outlined in a note attached. This note was discussed on December 13 in Mr. Avramovic's office with Messrs. Kundu, Sundrum, Krishnamurty, Kuczynski(IMF) and Miss White. Data collection is almost completed, part of them are already punched. Programming for the computer is underway. Results could be presented in the form of the country and commodity tables described above approximately by the end of the year. The economic interpretation of the results and the study in depth could be initiated (IMF/Bank) at the beginning of January.

4. Review by commodities

4.1 Supply and demand response to price changes

The response of consumption, level of commercial stocks and production to price changes is being analysed for selected commodities. The study consists of a review of existing studies and original research work to fill up the gaps. Attention is given to lagged response to prices, differentials between response to increasing and decreasing prices, differentials between percentage price changes at the world market level, at the producer and at consumer level. Knowledge of responses to price changes is needed for buffer stock simulation, diversification scheme and price raising.

1/ The analysis without commodity breakdown will be extended to another 25 countries.

2/ A few amendments agreed upon during the discussion have not been reproduced in the note attached.
Work is completed for cocoa regarding production, consumption and stocks and for coffee regarding U.S. consumption. Work is underway for copper and jute.

4.2 Review of past trends and future prospects

During the course of the preparation of my paper for Princeton, I have reviewed the projections for 1975 from FAO, UNCTAD and IBRD (commodities division). These projections might be of some use to replace the measures proposed in the overall perspective of LDC's export earnings and as a broad frame for the diversification study.

4.3 Initial review of feasible measures for selected commodities

Brief notes, together with basic statistical background are underway for selected commodities. Notes on bananas, tea, jute and copper should be available next week. A note on sugar is prepared by Miss Lovasy.

The purpose of these notes is to provide at an early stage some guidance as to the most promising measures for "stabilizing prices at remunerative levels."

5. Buffer stocks

No assessment has yet been made regarding the cost of buffer stock operations for any commodity, but some thinking was made on possible ways to tackle the problem. At this stage, however, there is not one view but several. The following is the expression of my personal view on the matter.

In the past, buffer stocks have been very seldom used, if ever, as an isolated device with the sole object of ironing price fluctuations. In current discussions of commodity stabilization, buffer stock operations are usually considered as one tool among others to be integrated within a commodity agreement. The size of the buffer stock needed will therefore greatly depend on the other tools associated to it in the scheme and of the precise objectives of the scheme.

The extent to which various tools could be used in the successive years might be visualized as activities. The objectives of the scheme might be expressed by optimizing a function subject to a number of constraints. Various functions could be optimized (for example, minimizing the cost of the buffer stock, or maximizing export earning minus cost of the buffer stocks). The constraints could be the floor and ceiling prices, the maximum level of the buffer stock, the maximum level of price fluctuation within the margin, etc. The problem might be analyzed with linear programming techniques.

If the method proved manageable, it could be experimented for one or two commodities, to reach a better understanding the mechanism and illustrate the orders of magnitude involved. In particular, one could show the impact of a
modification in the objectives (choice of the function to be minimized or maximized, levels of the constraints, etc.), of the introduction of an additional tool (production quota, diversion sales, etc.) and of a modification in the value of the parameters (price elasticity and lagged effects). After experimenting with one or two cases, one might gain a sufficient understanding to get rough orders of magnitude for other commodities with simplifying assumptions.

The approach is described in two brief notes of December 4 and 5. Some members of the Economics Department have expressed their interest in following the study in case this approach would be followed.

Regarding future uncertainty, the impact of weather on production of agricultural commodities might eventually be studied in a few cases on the basis of long-term meteorological series.

6. Others

Subjects other than those listed under the previous five headings may deserve special investigation, for example, possible ways of increasing the import demand and, in particular, of stimulating trade between LDC.

It may also be mentioned that contact was maintained with some international agencies such as UN, UNCTAD and FAO.
1. Basic data

1.1 Subscripts

i refers to the country. The 20 countries selected are shown in annex 1.

k refers to the commodity. The 38 commodities selected are shown in annex 2.

k refers to the year. The period selected is 1950-1965; shorter series were used when data were not available.

1.2 Variables

\( y_t \) = GDP at constant prices

\( n_{it} \) = population

\( x_{it} \) = Total commodity export earning current value

\( m_{it} \) = Total commodity import current value

\( m^e_{it} \) = Total commodity import of equipment goods current value

\( p_{it}^X \) = Average export unit value

\( p_{it}^m \) = Average import unit value

\( p_{it}^{me} \) = Average import unit value for equipment goods

\( p_{it}^m \) = Average import unit value for all LDC

\( x_{ikt} \) = Value of export for commodity \( k \) from country \( i \)

\( q_{ikt} \) = Volume of export for commodity \( k \) from country \( i \)

\( x_{kt} \) = Value of export for commodity \( k \) from all LDC

\( q_{kt} \) = Volume of export for commodity from all LDC
1.3 Coverage

The value of exports from LDC to all destinations may be visualized as a three-dimensional matrix (country, commodity, year) with elements $x_{ikt}$. From the cells known, two-dimensional sections of the matrix can be produced in the form of country and commodity tables.

- **20 country tables**, by year and commodity.

For country $i$, a commodity $k$ was selected out of the list of 38 commodities, if $x_{k} \geq 0.05X$ in 1965.

$p_i$ commodities were selected for country $i$. All other commodities (either included in the list of the 38 but accounting for less than 0.05X or outside this list) are grouped under one heading under subscript $p_i+1$:

$$x_{i,p_i+1,t} = x_{it} - \sum_{k=1}^{p_i} x_{kt}$$

$$x_{it} = \sum_{k=1}^{p_i} x_{kt}$$

Thus, each country table is composed of 16 columns (years) and $p_i + 2$ lines: $p_i$ commodities out of the list of 38, other commodities, and all commodity exports. ($p_i$ varies from 2 to 6).

- **38 commodity tables**, by year and country.

For commodity $k$, will be included only those of the countries selected satisfying the condition $x_{ik} \geq 0.05x_i$. If $r_k$ is the number of countries included, the exports of all other countries will be grouped under one single heading with subscript $r_k+1$:

$$x_{k,r_k+1,t} = x_{kt} - \sum_{i=1}^{r_k} x_{ikt}$$

($r_k$ varies from 0 to )
The same applies to volume of exports from LDC to all destinations.
Since the lines \( p_{i+1} \) and \( r_{k+1} \) are derived by difference, all errors or inconsistencies between the \( x_{it} \) or the \( x_{kt} \) and the \( x_{ikt} \) collected are reflected in the \( x_{it}, p_{i+1} \) and \( x_{kt}, r_{k+1} \) which are calculated by difference.

2. Analysis

2.1 Variables

a - Exports (Q, P, V)

In country \( i \) for all commodity exports

\[
\frac{x_{it}}{P_{it}} \times \frac{P_{it}}{P_{it}} = \frac{x_{it}}{P_{it}}
\]

\[
\frac{x_{it}}{P_{it}} = \text{volume of all commodity exports}
\]

\[
\frac{x}{P_{it}} = \text{Terms of trade of all commodity exports}
\]

\[
\frac{x_{it}}{m_{it}} = \text{Import capacity of all commodity exports}
\]

In country \( i \), for commodity \( k \)

\[
\frac{q_{ikt}}{P_{it}} = \text{Volume of export of commodity } k
\]

\[
\frac{1}{m_{it}} \times \frac{x_{ikt}}{P_{it}} = \text{Terms of trade of export } k
\]

\[
\frac{x_{ikt}}{m_{it}} = \text{Import capacity of export of commodity } k
\]

For commodity \( k \) and all LDC.

\[
\frac{q_{kt}}{P_{it}} = \text{Volume of LDC export for commodity } k
\]

\[
\frac{1}{m_{it}} \times \frac{x_{kt}}{P_{it}} = \text{Terms of terms of export } k \text{ for all LDC.}
\]

\[
\frac{x_{kt}}{m_{it}} = \text{Import capacity of exports of commodity } k
\]
The corresponding values will be computed for the residual \( x_{i,t+1} \) and \( x_{k,t+1} \).

In short, exports will be expressed by:

- **Q** = Volume of exports
- **P** = Terms of trade
- **V** = Import capacity of exports

\[
Q \cdot P = V
\]

**b - GDP** (Q)

\[
Y_{it} = \text{GDP at constant prices}
\]

\[
\frac{Y_{it}}{n_{it}} = \text{GDP per caput at constant prices}
\]

**c - Imports** (Q)

\[
\frac{m_{it}}{P_{it}} = \text{Volume of all commodity imports}
\]

\[
\frac{e_{it}}{P_{it}} = \text{Volume of imports of equipment goods}
\]

### 2.2 Trends and fluctuations

For each of the variables listed under 2.1, a trend will be computed from a semi-log function and the fluctuations measured from this trend line.

Taking \( y_t \) for example -

\[
\log y_t = a + bt + e_t
\]

\[
\log y_t^* = a + bt
\]

\[
\log \left( 1 + \frac{y_t - y_t^*}{y_t^*} \right) = e_t
\]

\[
\beta = 100 (-1 + \text{antilog b})
\]
Fluctuations will be measured in two ways:

\[
f = \frac{100}{n-1} \sum_{t=1}^{n} \left| \frac{y_t - y_t^*}{y_t^*} \right|
\]

Arithmetic average of the absolute deviations measured as percentages of the trend value from which the deviation is measured, this index can be easily understood by non-statisticians. Its value would, however, not be the same if the trend had been approximated by another function.1/

\[
c = 100 \bar{y}
\]

with \( \bar{y} \) standard error of the estimate

\[
\bar{y} = \frac{\sum (y_t - y_t^*)^2}{n-1}
\]

The use of the standard deviation \( (c) \) gives a higher weight to peaks and bottoms than the average of the absolute values of the error terms \( (f) \). This would be reduced by using the standard deviation of the log instead of the standard deviation of the original variable. However, the latter might be used, despite or more lengthy computation for comparability between fluctuations measured from different trend lines.

(1) \[ \log Q_t = cst + b_q t + e_{qt} \]

(2) \[ \log P_t = cst + b_p t + e_{pt} \]

\[ \log V_t = cst + b_v t + e_{vt} \]

\[ b_v = b_q + b_p \]

(3) \[ e_{vt} = e_{qt} + e_{pt} \]

With:

(4) \[ \log Q_t = cst + c \log P_t + dt + e_t \]

1/ There is no direct relation between \( 1-R^2 \) and \( f \) since least squares minimize \( \sum e_t^2 \) and not \( \sum |e_t| \)
The relation between the error terms of equations (1) and (2) can be written:

\[ (5) \quad \varepsilon_{qt} = c \varepsilon_{pt} + \varepsilon_t \]
calling \( r^2 \) the coefficient of correlation of equation (5) equal to the coefficient of partial correlation of equation (4) \( (r^2 = R^2_{qp,t}) \).

It follows that:

\[
\sum_{t} \varepsilon_{vt}^2 = (1+c)^2 \sum_{t} \varepsilon_{pt}^2 + (1-r^2) \sum_{t} \varepsilon_{qt}^2
\]

or

\[
\sigma^2_v = (1+c)^2 \sigma^2_p + (1-2r^2) \sigma^2_q
\]

\[
\sigma^2_v = (1+2c) \sigma^2_p + \sigma^2_q
\]

\[
\sigma^2_v = \sigma^2_p + \sigma^2_q + 2 \frac{\text{cov}(\varepsilon_{qt}, \varepsilon_{pt})}{n-2}
\]

The results could be presented in the form of country and commodity tables (see format attached).

If wanted, the computation could also be made from linear trends (I am not sure it is necessary).

2.3 Relation between GDP and exports

a - Intercountry

Relations between the country rates computed previously:

\[ b_{yi} = \text{cst} + g b_{xi} + h f_{xi} \]

\[ b_{yi} = \text{cst} + g b_{xi} \]

\[ b_{yi} = \text{cst} + g f_{xi} \]

\[ f_{xi} = \text{cst} + g b_{xi} \]

With:

\[ b_{yi} = \text{a) rate of growth of GDP} \]

\[ b_{yi} = \text{b) rate of growth of GDP per caput} \]
\[ b_{x_1} = \text{rate of growth of exports} \]
\[ f_{x_1} = \text{index of fluctuations of exports} \]
\[ x \text{ expressed in volume, value, terms of trade.} \]

\[ b = \text{Within country} \]
\[ y_t = c_{st} + b x_t \]
\[ y_t = c_{st} + b x_t + c \]
\[ y_t = c_{st} + b x_t + c_{y_{t-1}} \]

With \( y_t \) GDP and GDP per caput
\( x_t \) being expressed in value, volume and terms of trade.

For countries where terms of trade varied widely, graphs \( y(t), \frac{y_t}{n_t}, x_t \) should be made initially.

The results could be presented as in tables 17, 18 and 19 of the Princeton paper.

\[ c = \text{By commodities for all LDC} \]

In the equation \( (4) \) section 2.2, the time variable could be replaced by developed countries GDP.
**COUNTRY TABLE**

<table>
<thead>
<tr>
<th>Country:...</th>
<th>Period</th>
<th>Share of GDP</th>
<th>Trends</th>
<th>Fluctuations indices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q P V</td>
<td>f_q f_p f_v c_q c_p c_v</td>
</tr>
<tr>
<td>Commodity 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>p_1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other p_1+1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All Commodity exp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP/caput</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All imports</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Imp. of equpt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Import capacity of exports and volume of imports at the mean.
## Commodity Table

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Period</th>
<th>Share</th>
<th>Trends</th>
<th>Fluctuations</th>
<th>C</th>
<th>r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country 1</td>
<td></td>
<td></td>
<td></td>
<td>β and t ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>(t) ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other countries</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All LDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Import capacity of exports at the mean.
List of the 20 Countries Selected

Latin America (8)
- Argentina
- Brazil
- Ecuador
- Chile
- Colombia
- Jamaica
- Nicaragua
- Peru

Africa (5)
- Ethiopia
- Ghana
- Ivory Coast
- Tanzania
- Uganda

Middle East (1)
- U.A.R.

Asia (6)
- Ceylon
- India
- Malaysia
- Pakistan
- Philippines
- Thailand
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Petroleum</td>
<td>20. Bauxite</td>
</tr>
<tr>
<td>3. Rubber</td>
<td>22. Maize</td>
</tr>
<tr>
<td>4. Sugar</td>
<td>23. Jute</td>
</tr>
<tr>
<td>5. Cotton</td>
<td>24. Hides &amp; Skins</td>
</tr>
<tr>
<td>6. Copper</td>
<td>25. Wheat</td>
</tr>
<tr>
<td>8. Timber</td>
<td>27. Manganese Ore</td>
</tr>
<tr>
<td>10. Cocoa</td>
<td>29. Palm Oil</td>
</tr>
<tr>
<td>11. Rice</td>
<td>30. Lead</td>
</tr>
<tr>
<td>13. Bananas</td>
<td>32. Zinc</td>
</tr>
<tr>
<td>14. Tin</td>
<td>33. Fishmeal</td>
</tr>
<tr>
<td>15. Wool</td>
<td>34. Coconut Oil</td>
</tr>
<tr>
<td>16. Tobacco</td>
<td>35. Linseed Oil</td>
</tr>
<tr>
<td>17. Cotton Textiles</td>
<td>36. Abaca</td>
</tr>
<tr>
<td>18. Copra</td>
<td>37. Linseed</td>
</tr>
<tr>
<td>19. Groundnuts</td>
<td>38. Lamb</td>
</tr>
</tbody>
</table>
BUFFTER STOCK MODEL

Past series

\[ P_t = \text{price in year } t \]
\[ D_t = \text{production in year } t \]
\[ C_t = \text{consumption in year } t \]
\[ S_t = \text{level of commercial stocks in year } t \]

The formulae are linked by identity:

\[ S_t - S_{t-1} = D_t - C_t \]

Simulation of buffer stock operations

We superimpose on the past time series the operation of buffer stock aiming at stabilizing prices. We first introduce a new variable:

\[ B_t = \text{level of stocks in the buffer stock in year } t \]

Simulating buffer stock operations \((B_t - B_{t-1})\) representing purchase or sale in year \(t\) will lead to changes in the value of the four variables defined above.

For convenience, we shall refer to the change in these variables defined as follows:

\[ \Delta P_t = P'_t - P_t \]
\[ \Delta D_t = D'_t - D_t \]
\[ \Delta C_t = C'_t - C_t \]
\[ \Delta S_t = S'_t - S_t \]

The sign \(\Delta\) characterizes the new value of the variables in the simulated buffer stock operation.

The five variables introduced in the system \((B_t - B_{t-1}, \Delta P_t, \Delta D_t, \Delta C_t, \Delta S_t)\) are linked by four relations:

(1) Identity:

\[ B_t - B_{t-1} = \Delta D_t - \Delta C_t - \Delta S_t \]
and three behavioral equations:

\[(2)\] \[\Delta D_t = a_0 \Delta P_t + a_1 \Delta P_{t-1} + \ldots + a_{t-1} \Delta P_1\]

(3) \[\Delta C_t = -b_0 \Delta P_t - b_1 \Delta P_{t-1} - \ldots - b_{t-1} \Delta P_1\]

\[(4)\] \[\Delta S_t = -c_0 \Delta P_t + d \Delta C_t\]

or (4') \[\Delta S_t = -(c_0 + db_0) \Delta P_t - db_1 \Delta P_{t-1} - \ldots - db_{t-1} \Delta P_1\]

It is assumed that the buffer stock operation affect production, consumption and the level of commercial stocks only through prices. This response for consumption and production is expressed in the form of distributed time lags. In the case of commercial stocks, it is assumed that the level of stocks in year \(t\) is negatively related to the price level in year \(t\) and positively related to the consumption in year \(t\); the latter accounting for normal pipeline stocks. The value of all the parameters in equations (2), (3) and (4) will generally be positive.

With five variables and four equations, one degree of freedom is left. If this degree of freedom is used to define the price objective \((P'_t)\) and consequently \(\Delta P_t\), the level of the stocks in the buffer stock \((B_t)\) can be calculated by solving the system 1, 2, 3 and 4'.

Thus, if a vector of prices \(P'_t\) is taken as the objective, the vectors characterizing the operation of the buffer stock in each year \((B_t-B_{t-1})\) and the level of stock in the buffer stock \((B_t)\) can be expressed for each of their elements as follows:

\[(5)\] \[B_t - B_{t-1} = \sqrt{a_0 + b_0(1+d)} + c_0 \Delta P_t + (a_1 + b_1(1+d)) \Delta P_{t-1} + b_{t-1}(1+d) \Delta P_1\]
With the notations:

\[ A_0 = a_0 + b_0(l+d) + c_0 \]
\[ A_1 = a_0 + b_0(l+d) + c_0 + a_1 + b_1(l+d) \]

\[ \ldots \]
\[ A_{t-1} = a_0 + b_0(l+d) + c_0 + a_{t-1} + b_{t-1}(l+d) \]

The level of stocks in year \( t \) is:

\[ (6) \quad B_t = A_0 \Delta P_t + A_1 \Delta P_{t-1} + \ldots + A_{t-1} \Delta P_1 \]

Variation in the level of the buffer stock results from the combination of three elements: the production effect (\( a \)), the consumption effect (\( b \)), and the reduction of commercial stocks (\( c_0 + bd \)).

If there is no lagged effect in production and consumption (\( a_0 = b_0 = 0 \) for all \( t > 0 \)) equations (5) and (6) can be written in the simplified form (5') and (6')

\[ (5') \quad B_t - B_{t-1} = A_0 \Delta P_t \]
\[ (6') \quad B_t = A_0 (\Delta P_t + \Delta P_{t-1} + \ldots + \Delta P_1) \]

If there is no production and consumption response to price changes (\( a_0 = b_0 = 0 \)) equations (5') and (6') can be written in (5'') and (6'')

\[ (5'') \quad B_t - B_{t-1} = -\Delta S_t \]
\[ (6'') \quad B_t = \Delta (\Delta P_t + \Delta P_{t-1} + \ldots + \Delta P_1) \]

If the scheme is operating from year 1 to year \( n \), the initial conditions can be written:

\[ B_t = \Delta P_t = \Delta D_t = \Delta C_t = \Delta S_t = 0 \quad \text{for all } t \leq 0 \]

If the price objective is given in the form of a price vector \( P_t \), it can be implemented only if all \( B_t \) are positive and if enough capital is available to carry the maximum level of \( B_t \) which is called \( B \).

If we start from \( B_0 = 0 \), an a priori selected price objective vector will generally lead to some \( B_t \) negative, in which case it will not be possible to cut
the peaks. In practice, stabilization through buffer stock can be initiated only in a period of depressed prices.

An infinity of vectors $P_t$ will generally satisfy the constraints $B_t > 0$ for $t=1, \ldots, n$ with $B_0 = 0$ and $B_n \leq K$ ($K$ being the maximum level of stock to be carried at the end of the simulation period). The determination of the system will therefore require, in addition to the constraints, the optimization of a function characterizing the objective of the scheme. Among possible choices are:

1. Minimize price fluctuations
2. Minimize export earnings fluctuations
3. Minimize the operating cost of the buffer stock
4. Minimize the capital needed for the scheme
5. Maximize average export earnings

The solution suggested is the optimization of a function combining 5 and 3. More specifically:

- To maximize export earnings minus the net operating cost of the scheme (or plus the net profit of the scheme).
- To take as major constraint the floor and ceiling prices $P^*_t-e, P^*_t+f$ defined in relation to the expected price trend $P^*_t$.
- To introduce as secondary constraints the maximum level of fluctuations allowed for prices and export earnings, the maximum level of stocks ($B_t \leq B$).

There are good reasons for reducing the amplitude of price fluctuations since wide fluctuations do not serve any useful economic purpose. But it is not a priori obvious that to minimize price fluctuations is a desirable objective. Maximizing export earnings seems a more important objective.
The cost of the scheme might be covered by aid, but this aid may not be a net addition but an alternative to other forms of aid. This is the rational for maximizing the difference between the increase in export earnings and the cost of the scheme.

In practice, a buffer stock will seldom be operated in isolation. It will generally be one tool integrated within a commodity agreement. Other devices will be available to control price movements, such as production and export controls, diversion sales at lower prices (cocoa butter sold for margarine). In general, several tools will be available for checking the price decline; in the case of an inelastic import demand, goods already produced could be dumped in the sea as a last resort. But, apart from rationing, buffer stock may be the only device to check price increases if supply is inelastic in the short term.

In case of asymmetry, one may approach the problem by starting with the constraints which can be satisfied only with one instrument. Thus, in the simulation exercise, one may start by the minimum level of stocks needed to check the price increase and proceed to those where a choice has to be made between various instruments. The various instruments can be used at various degrees, the limits being given by the price constraints. The optimum solution could be found by the use of dynamic linear programming. With simplified assumptions, a satisfactory solution could sometimes be found without too much difficulty by successive approximations.

1/ The opportunity cost of the increased production could be taken into account. However, since it would be difficult to measure and of minor importance, it could generally be neglected.
Going from simulation of the past to operations in the future will introduce uncertainty. In the simulation exercise, it was possible to optimize on the basis of a known price sequence \( (P_t) \). If nothing is known about future sequences, one could estimate the size of the security stock required on the basis of sequences recorded in the past. Another important difference with the simulation exercise, the forecasted price trend \( P^*_t \) is uncertain. It will be necessary to specify how the price \( P^*_t \) will be set and for how many years in advance.

To conclude, I feel that a simulation model will be useful mainly to illustrate the mechanism and clarify conceptual problems. To give some idea of the magnitudes involved, a highly simplified example is sketched in the case of a commodity where two instruments are available: buffer stock and diversion sales. The description of price instability is illustrated in the case of jute. These two examples suggest that the size of the stocks will greatly depend on the devices which could be associated to the buffer stock.

The purpose of these notes is not to provide any solution but to help us decide what we want to study in the section dealing with buffer stocks.

\[1/\] An analysis of impact of weather on production fluctuations could be useful.
We shall consider a commodity with a price inelastic import demand, such as cocoa, where diversion sales can be combined with buffer stock operations.

**Constraints**

Floor and ceiling prices: \( p_t^* - e, p_t^* + f \).

\( p_t^* \) is the expected price trend.

**Objective**

Maximize exports earnings plus net profit (or minus net cost) of the buffer stock.

**Tools**

Alternative (1) - buffer stock only

Alternative (2) - buffer stock plus diversion to margarine.

Diversion to margarine is authorized when two conditions are fulfilled: first, the buffer stock holds the full amount of security stocks (defined below); second, the market price has reached the floor level.

To fulfill the price ceiling constraint, the buffer stock should hold a security stock sufficient to avoid price rising above the ceiling. The level of this security stock can be estimated from past series by the maximum sequence of prices which exceeded the simulated ceiling (see graph). A sequence being a series of consecutive years with high prices; if two high sequences were close to each other, those should be considered as a single one.

Assuming no lagged price response, this maximum corresponds to the maximum of \( \sum_{t=1}^{T} p_t^* - (p_t^* + f) \) recorded for the high price sequence; it will be called \( (\bar{\eta} \Lambda P)_M^* \).

With the previous notations (equation 5), the amount \( X = A_0 (\bar{\eta} \Lambda P)_M^* \) is required.
as a security stock to face sequences of shortages not exceeding those recorded in the past. The estimate of $X$ will obviously depend on the length and the particular history of the past series. To play safe, the value of $X$ computed from the past could be blown up by a given percentage.

Similarly, the quantity of stock $Y$—which the agency should be ready to buy to avoid prices falling below the floor,—could be computed from the largest of the low price sequences, (sequences of prices below the simulated floor in the past).

**Alternative 1:** No diversion to margarine.

The agency should keep $X$ as security stock. If a low sequence occurs, the agency should be ready to add $Y$ to the security stock $X$. The agency therefore needs the capital and the storage facilities to carry a maximum of $X+Y$. If the low price sequence is followed by a sequence of prices falling between the floor and the ceiling, the agency could progressively sell the quantity $Y$ so as to reach the cruising level $X$ corresponding to the security stock.

**Alternative 2:** Diversion to margarine associated to the buffer stock.

The agency never needs to carry more than $X$. If from the cruising level of stock $X$ a low sequence occurs, the agency would divert to margarine instead of increasing the level of stocks above $X$. In view of the price inelasticity of the import demand, diverting to margarine the maximum amount of cocoa authorized by the rule would maximize export earnings plus net profit of the buffer stock, which is the objective given. When a high sequence occurs, the agency will sell. Immediately after the high price sequence, the agency will start replenishing its stocks to the security level $X$. This could be done during a sequence of prices between the floor and the ceiling or partly during a low price sequence. In the latter case, the agency will buy
up to the time when the level of stock $X$ is reached and then will divert to margarine if the price tendency to fall below the floor persists.

The level of the security stock $X$ will be fixed by the margin $f$ between the expected trend price and the ceiling. The quantity diverted to margarine will increase when the margin $e$ between the expected and the floor price is reduced. A relation could be established between $f$ and the cost of the storage scheme. A similar relation between $e$ and the cost of the diversion scheme to be covered by an import levy. The security stock would act as a protection for consumers, the diversion sales as price guarantee to producers.

If $f = e$, $X$ and $Y$ will be of similar orders of magnitude. If $f = 2e$, $X$ could be about half of $Y$. Thus, the second alternative would require a maximum level of stock of about half or one-third the first one.
OFFICE MEMORANDUM

TO: Mr. Shigeharu Takahashi
FROM: Dragoslav Avramovic
SUBJECT: Study on Agricultural Price Stabilization

DATE: December 1, 1967

1. Thank you for the preliminary draft on agricultural price stabilization. I believe it represents a most useful general review of the problems of agricultural development and diversification. Particularly of interest is the appraisal of diversification possibilities under various climatic conditions.

2. As we discussed yesterday the next step is to deepen and quantify the analysis. In this connection, I have a number of questions as listed below.

3. What have been the anticipated (or actual) returns on agricultural projects we have financed, particularly on projects which may be classified as diversification in the broad sense? It would be useful to list the rates of return for different types of projects. What commodity prices have been used in project appraisal?

4. What are the diversification possibilities in the areas under cocoa? If available, do you have specific examples of profitability of cocoa vs. alternate crops?

5. What is the scope of alternate crops in the coffee producing areas? Are there any specific examples of relative profitability?

6. A similar question arises with respect to tea. Are there alternatives in India and Ceylon? Which are the competing crops and how profitable are they? What are the alternatives in Africa, if any?

7. Is there any evidence of a shift out of bananas? What are the alternatives in this case? Have any profitable alternatives been developed?

8. Hard fibers, particularly sisal, are in surplus. What diversification possibilities exist in this area?

9. What has been the experience with diversification away from rubber? Have the alternatives been profitable? Is Ceylon also engaged in replanting program with high-yielding trees?

10. In your paper you mention the employment problems involved in diversification. Could this be quantified in terms of manpower requirements in, for example, coffee, cocoa, tea, bananas vs. other crops and livestock? Is the employment problem general with respect to other crops or is it limited to livestock?

11. The paper quotes the case of Taiwan as a successful example of diversification into food-processing for exports. What would be other successful cases? In what products?
12. The paper quotes the expansion of irrigation and flood control in East Pakistan (p. 17). Would it be possible to elaborate on this, showing which crops are involved and how much of an increase is envisaged? What has been the experience of the Sudan in diversification?

13. In view of the past experience, do you envisage that future diversification activities will be primarily in livestock or will they cover other agricultural commodities as well and which ones?

14. Would it be possible to provide unit capital cost estimates of diversified activities (e.g., livestock, maize, rice, selected oilseeds) under typical specified conditions?
OFFICE MEMORANDUM

TO: Mr. Gerald M. Alter

FROM: Dragoslav Avramovic

DATE: December 4, 1967

SUBJECT: Study of Stabilization of Commodity Prices

1. As you know, at the Annual Meeting in Rio, the resolution was adopted requesting the Bank to prepare a study of stabilization of commodity prices. The work on the study is under way. As presently envisaged, the study will contain a review of postwar fluctuations and trends in export prices, volumes and earnings of developing countries; an analysis of the experience with past attempts at commodity stabilization; an examination of various proposals to stabilize commodity prices; and an analysis of the structural problems connected with commodity trade.

2. The key structural problem is that of diversification of production and export structure: it is only through diversification and economic growth that the commodity problem will ultimately be solved. This is also the field in which the World Bank Group can make the most significant contribution.

3. Diversification can, of course, be defined in a more narrow or in a broader sense. In the narrow sense, it includes activities which lead directly to the actual withdrawal of factors of production from the production of commodities actually or potentially in surplus, or from the production of commodities on which a producing country is excessively dependent. In the broad sense, it includes activities which stimulate production of non-traditional products even though they are not directly related to an actual withdrawal of production factors from traditional export activities. Diversification in the narrow sense will be most urgently needed in commodities which are presently in acute surplus (the case of coffee); diversification in the broad sense is almost universally needed, but most particularly in the case of commodities which are potentially in surplus (e.g., cocoa, bananas, rubber, sugar, tea, hard fibers).

4. Several major questions arise in connection with diversification. What has been our operational experience with respect to stimulating diversification either in the narrow or in the broad sense? What knowledge have we acquired, through our general economic work, of the problems of and prospects for diversification? What has been our experience with production controls and with other measures to restrain production of commodities in surplus? How can the World Bank Group's assistance for diversification be increased and accelerated?

5. These general questions can be further specified:

(a) In what countries has the growth of alternative activities actually or potentially influencing the production of commodities in surplus been fastest and what factors have brought this about? What alternatives are available? Have the returns on the alternatives been higher?
What government actions have been taken to identify and stimulate the alternatives? Has diversification been incorporated in the country's development program? On the other hand, to what extent has the development effort tended to increase the production of commodities in surplus?

(b) What obstacles have been encountered in the development of the alternatives? Have these obstacles been primarily of a technical and administrative nature? Has the shortage of funds played a major role?

(c) Have production controls on commodities in surplus been introduced in any of the countries? What form have the production controls taken, i.e., acreage restrictions, control of new plantings or limitations on the quantities purchased by government agencies? Have the controls been effective? If not, what have been the major defects? What other measures have been taken to limit production of commodities in surplus and how effective have they been?

(d) What has the World Bank Group done in the past to identify the alternatives, to encourage the governments to exploit them and to assist financially diversification? What can the World Bank Group do in the future to accelerate diversification? What measures should be taken? Would any changes be involved in our lending procedures? Is it possible to estimate the capital cost of feasible alternatives over the next five years? How large would the amounts of additional funds be that could be absorbed?

6. I realize that these are complex questions, and to some of them there may not be a ready answer. However, I would be most grateful for information and answers to the questions raised in paragraphs 4 and 5, with whatever details that are available. Whenever feasible, I would also ask that you comment on the way in which you have seen the general development process affecting the situation of specific commodities in surplus and how (and whether) it may be made to affect it more meaningfully than in the past.

7. I would appreciate receiving a note on each country in your area, even if some of them say only that you feel these questions are not relevant to that particular country. Wherever feasible, these notes should reach me before the end of the year. Where this timetable is not feasible, please let me know when I may expect to receive the delayed country notes. I would hope that at the latest, all country notes could be prepared by mid-January.
Mr. Abderrahman Tazi

Irving S. Friedman

Study of Stabilization of Commodity Prices

Thank you for your memorandum of November 16, and the attached letter from the Malaysian Ministry of Finance. The problem of natural rubber is certainly one of the key commodity problems and the recent behavior of rubber prices is a matter of deep concern to developing countries. I can assure you that the staff working on the study of commodity prices will consider the problem of rubber together with other critical problems in this area.
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**Remarks**

Would you please prepare suitable reply for me?

From Irving S. Friedman
OFFICE MEMORANDUM

TO: Mr. Irving S. Friedman
FROM: Abderrahman Tazi
DATE: November 16, 1967

SUBJECT: Stabilization of prices of Primary Products: Rubber -

Following our telephonic conversation of today and as understood, I am sending you, herewith, copy of a letter deriving from the Ministry of Finance of Malaysia dealing with the above mentioned subject.

Your assistance and reply on this matter will be greatly appreciated.

Attachment

To, Mr. Economic
Would you please prepare suitable reply for me? 15 E
Dear Mr. Tazi,

You may recall that at the last annual meetings of the Bank and Fund in Rio de Janeiro, resolutions were passed to the effect that these two institutions should look into the question of the stabilization of the prices of primary products at a remunerative level.

I would be grateful if you could use your best efforts to get both the Bank and Fund to put the question of rubber prices at the top of the list in view of the fact that the price of rubber has reached its lowest point in eighteen years. I doubt if the price of any other commodity which is vital to the economy of a developing country has fallen to its lowest point in eighteen years. On this ground alone, we therefore feel that rubber prices should be given top priority.

Yours sincerely,

(Tan Siew Sin)
OFFICE MEMORANDUM

TO: Mr. Andrew M. Kamarck
FROM: A.G. Nowicki
DATE: October 4, 1967
SUBJECT: Excerpt from Report - Organization of International Commodity Markets

In conformity with your today's request please find attached an excerpt from my report, concerning the organization of international commodity markets.

I received the information contained therein in a rather indirect way. The management of our Paris Office assured me that, as far as contacts with Ministries and public administration are concerned, they have it firmly in hand.

I confined therefore my relations to the academic and consulting organizations, and the attached note is composed from information received from these bodies.

Attachment
Organization of International Commodity Markets

1. No official contacts with public authorities have been undertaken, for reasons mentioned in the main report. I decided, instead, following my terms of reference, to contact some University Professors and Senior Researchers active in this field to collect their opinions and ideas. It is noteworthy that opinions of such groups do often contribute, much more than one would expect, to lay foundations under more specific administrative decisions.

2. In general, commodities supplied by under-developed countries are usually subdivided, within the French concept of organization of international commodity market into the following groups:

   (i) Commodities, against which there is no serious competition in industrialized countries (such as tea, coffee, cocoa, bananas, etc.)

   (ii) Commodities, against which there exists a particular competition of synthetics

   (iii) Commodities, mostly agricultural products and raw materials, which are produced both by developing and developed countries. These are, in their turn, subdivided into:

       a) Commodities, exported mostly by developing countries

       b) Commodities, where the weight of developed countries in exports is as large as that of developing countries.

This system of grouping of commodities is helpful in adjusting a particular solution to each of these groups.

3. On the whole, following solutions are being proposed (the order used in classification, as in paragraph 2 above, is maintained):

   (i) In a short-term: stabilization of commodity prices.

   In a longer term, stabilization policy is to be tied up with a policy of transfers of new surpluses of income,
obtained due to commodity price increases.

(ii) In a short-term: stabilization to eliminate price fluctuations.
In a longer term, compression of costs of production and improvements in productivity. The idea here is that synthetics have gained the increasing market share largely because of research and development expenditures, and if same is applied to production of raw materials, the latter may recuperate a part of the market.

(iii) a - Same solution as in case (i) but more cautiously applied;
    b - Organize a better access to markets in developed countries,
where, simultaneously, some improvements in productivity of agriculture are to take place.

4. After having proposed main lines of solutions attached to each group of products, French economists delve deeper into various techniques which could be applied to make these solutions workable. These techniques can be presented as follows:

i) In any case it is considered necessary to conclude agreements on market organizations between the principal importers and exporters, in order to stabilize prices at a certain moving average level, corresponding to the general long-term trend. Here a principal working instrument of these agreements will be an export control through a system of quotas, and hence a control of production, which is considered desirable, may become possible.

ii) Another technique may consist in fixing import quotas for purchasing countries, and, from then on, an establishment of transfer system, based on minimum fixed prices and levying of a difference between market prices and guaranteed minimum prices. These levels would be returned to exporting countries, propor-
iii) Formation and financing of buffer stocks of commodities. The system of creation of stocks is simple -- they grow during the period of falling prices and, when they become excessive, a surplus is spoiled or used for secondary transformation. A more difficult problem is how to finance these stocks. For this a small surcharge over the usual custom duties could be used. This system cannot obviously be set into motion without a certain pre-financing, assured by private banks and warranted by the Governments, which are also expected to reimburse a part of interest rate charged to pre-financing loans.

Here some tie-ups between movements of stocks of various commodities are proposed, so that a surplus of ones could be used as pre-financing funds for the others.

iv) Diversification of production. To impose a principle of diversification, participating countries should avoid situations, where additional incomes or transfers due to a price stabilization are entirely returned to producers, in which case may be considered as a premium rewarding the existing pattern of crops, and not, as an inducement to change it.

5. Some critiques were voiced with respect to compensatory financing, as opposed to organized commodity markets. It is considered that compensatory financing is an auxiliary to a free market access and that its importance is merely a transitory one, until principal problems of organization are agreed upon and introduced.

6. Consumption tax. It is considered, by some French economists, that consumption tax, levied on such products as tea, coffee and cocoa, could be presented as a mean by which developing countries contribute to the increase of budgetary receipts in developed countries (this is particularly true for Italy.
and Germany, as I have been told here). Given the inelasticity of demand for these products, no reasonable increases of imports could be expected from abolishing consumption taxes. A better solution would be to start reimbursing consumption taxes to exporting countries, by starting out at a low level and increasing gradually the coefficient of reimbursement.

7. Considerable importance is attributed to clearing systems based on differentiated prices. Thus, for instance, a system of double prices for cereals -- higher prices of cereals destined for developed countries and lower prices for developing countries -- is being currently discussed. In any case an organized market cannot detach itself from the economic situation in each particular country, so as to avoid the possibility of depressing, for instance, the local cultivation of rice because of cheap deliveries of wheat.

8. It is also considered in France that the solution of the commodity markets problem is not really fundamental for future development of backward areas. Here one observes a recurrent thought that, given that overall growth of developing countries exceeded the rates of growth of their exports, development of local industries could be considered more as an increasing factor of economic development than anything else.

9. Another problem brought forward by French economists is whether economic aid should exert a stabilizing or de-stabilizing effect. This idea is in relation with a question, asked in paragraph 4(iv) above, namely how to avoid that a crop and raw material production pattern settles once and for all, because of a system of stabilizing prices.

1/ Here, e.g. some French economists propose indexation of commodity prices, by tying them up to prices of imported equipment goods.
If commodity prices are stabilized, we would base ourselves on the system of scarcities of the past, instead of considering the scarcity of the present or, better, scarcities of the future.

10. There is a wide understanding of a necessity of financial aid needed to arrive at a certain workable organization of markets and helping it to function. It is seen as an aid indispensable:

i) To finance external exchanges between developing countries;

ii) To finance supplies of food and agricultural products;

iii) To pre-finance stocks of commodities;

iv) To finance transportation of products (early stages of an industrialization);

v) To assure supplementary or complementary financing;

vi) To raise a low loan ceiling of developing countries in one way or another (the Horowitz proposal has been favorably mentioned at this juncture.)
Mr. Abderahman Tazi

Irving S. Friedman

Study of Stabilization of Commodity Prices

Thank you for your memorandum of November 16, and the attached letter from the Malaysian Ministry of Finance. The problem of natural rubber is certainly one of the key commodity problems and the recent behavior of rubber prices is a matter of deep concern to developing countries. I can assure you that the staff working on the study of commodity prices will consider the problem of rubber together with other critical problems in this area.
Please note the different ways in which the Fund and the Bank refer to our Commodity Study.
Mr. Dragoslav Avramovic

Louis M. Gareux

Visit to New York November 14

November 16, 1967

1. Ecospoc meeting (IMF)

As could be expected the special drawing rights have been the most topical point. The increasing use of the compensatory financing scheme has also been widely commented upon. The stabilization study has been referred to by about two third of the delegations which took the floor.

Among LDCs, Mexico, India, Pakistan and Iran gave strong support to price stabilization at more remunerative levels. Among the developed countries, US and Sweden welcomed the study, France stressed its importance.

In his concluding remarks, Schwaizer noted, in relation to the stabilization study, that no miracles should be expected but that, if member countries wanted the Fund to use some of its resources for stabilization purposes, it might be possible to achieve something.

The last paragraph of the French speech and one paragraph of Schwaizer's address are attached.

2. Informal contacts

I took some informal contacts at the occasion of the meeting notably with the French delegation. I also saw UN and UNCTAD officers. Mozak will send us within two weeks country tables (about 40) with main exports commodities in volume.

Enclosure

cc: Mr. Friedman
    Mr. Stevenson
    Mr. Naone
    Mr. Kundu

[Handwritten note:]

I would like to see Mr. W. study. Esco speech particularly reference community study.
Address to the U.N. Economic and Social Council
by Mr. George D. Woods,
President of the World Bank,
the International Finance Corporation,
and the International Development Association,

Mr. President and Members of the Council:

This year for the first time I am reporting to the Economic and Social Council less than two months after the Annual Meeting of the World Bank Board of Governors.

At that meeting I spoke of the environment in which the World Bank Group and other institutions engaged in economic development are operating. I pointed to the significant economic progress being made in many of the developing countries, but I also emphasized that real and serious obstacles are causing that progress to be slower than we would like.

Rather than repeat today what I said then, I have arranged that my address to the Governors be sent to each member of the Council. Today, I propose to talk chiefly about the World Bank Group: to report on some of the highlights of the past year, and to discuss the major preoccupations, trends and activities within our institutions.

During the fiscal year ended last June 30, the financing activities of the Bank, the International Development Association, and the International Finance Corporation continued at a high level.

The Bank and IDA committed over $1.2 billion for economic development projects in 40 countries -- about $100 million more than the year before. Disbursements reached an all-time high, exceeding $1 billion.

For IFC, last year was the most active in its history. Investments totaled almost $50 million, and were both larger in amount and directed to a broader range of enterprises than in the past.
So far in this fiscal year, the pace has continued. Between July and November the Bank and IDA have committed about $450 million and IFC has made investments totaling $27 million.

* * *

Although infrastructure projects -- particularly power and transportation -- continue to absorb the bulk of our financing, three other priority areas in development -- agriculture, industry and education -- are more and more becoming central concerns within the Bank Group. I want to speak briefly about our financing in each of these areas.

Agriculture is not only a central concern but a long-standing one. We have provided in total more than $1 billion for the agricultural sector, and in the last few years, the pace of our activity has quickened. At the end of 1963, we were working on 26 agricultural projects in various stages of preparation. Today the figure is over 80. So far in calendar year 1967 we have already committed about $200 million for agricultural projects -- much more than in any previous comparable period.

In the Bank’s early days, most of its direct assistance to agriculture took the form of loans for large irrigation and flood control works. But such projects are often too costly or too complex for many of our members, particularly the newer ones.

Two years ago, I reported to the Council that we had begun to "dig our fingers into the soil," making a deliberate effort to finance more projects which would have a direct and immediate impact on the farmer and the land. The kind of assistance we are trying to provide demands imagination and flexibility. There are enormous differences among our members -- in soil and climate, custom and tradition, and willingness and ability to use new technologies. An approach suitable for one member is likely to be inappropriate for another. And so we have tried to accommodate our assistance to the varied circumstances of our prospective borrowers.

Let me illustrate. In Uganda, as elsewhere, almost all tea has until recently been grown on large estates. There we are helping to finance a program to expand tea production in smallholder areas. About 5,500 African subsistence farmers will be helped to grow a cash export crop under the project. They will be provided with technical assistance in cultivation, with collection and processing facilities, and with credit. In Cameroon, in contrast, we are assisting the expansion of an already large-scale plantation program, primarily for another export crop, oil palm. There the work of planting and cultivation will be performed not by independent farmers but by employees of the public corporation which operates the plantations. In Tunisia and Iran, we are helping to implement land reform programs. In Tunisia, subsistence smallholdings are being merged with large blocs of government-owned land to form large-scale production cooperative units. There our financing will help a program to expand cooperative farming and will meet the foreign exchange cost of managerial and technical assistance. In Iran, on the other hand, our assistance is taking the more customary form of support for the first stage of a long-term project to develop
water resources and agriculture within a defined region. But although the project includes irrigation works, there are no massive dams or canal systems. Moreover, a very sizable component of our financing will be used to meet the cost of agricultural advisory, supply and marketing services, training of Iranian personnel and other technical assistance.

We have been devoting special attention to providing farm credit, particularly for medium and small farms. Sometimes we have helped to start an agricultural bank or a credit corporation, sometimes to strengthen an existing one. Increasingly of late we are seeking to mobilize local capital, designing a project so that not only the Bank Group and the government but also the ultimate beneficiaries contribute to it. And where it is feasible, we are seeking to draw in private banking systems.

We are continuing and intensifying our assistance to governments in project identification and preparation. In this we are greatly assisted by the cooperative relationship established with FAO in 1964 -- a relationship which has become both closer and broader in scope. As one aspect of this cooperation, we have jointly selected those UNDP studies being carried out by FAO which look most likely to lead directly to promising investment opportunities. Over 40 studies so far fall into this category. We have arranged with FAO to follow these studies closely with a view to assuring that they produce the information which is essential for prompt investment decisions.

Better seeds, better equipment, improved farming methods, efficient organization and adequate credit facilities are all prerequisites to greater production. But the availability of fertilizer to the farmer, for application to his soil at an economic cost, makes possible a particularly rapid gain in output. Its effective use, with increased water supplies, offers the best hope for the breakthrough in food production which will be necessary if world requirements are to be satisfied.

IFC, the institution within the Bank Group which evaluates all industrial projects, has been giving particular attention to the possibilities of expanding chemical fertilizer production within the developing countries themselves. Last year, fertilizer projects occupied more of IFC's attention, and received more of its money, than any other business. Financing arrangements were completed for three new plants, in Brazil, Senegal and India, and there are seven major projects in the pipeline, all of which will call for Bank Group financing to supplement substantial capital from other external sources.

To give you some idea of the possible results from increasing fertilizer capacity, let me use India as an illustration. Over the last few years the average annual grain production in India has been about 80 million tons. To feed India's estimated population ten years from now, at nutritionally acceptable levels, would require doubling this production. Such a doubling from the same cropping area would in turn call for increasing present fertilizer nutrient consumption over the decade by 8 million tons of nitrogen, 4 million tons of phosphate and 2 million tons of potash. The capital investment in production facilities required to manufacture, within India, finished fertilizer containing these amounts of nutrients would be of the order of $2 to $3 billion -- at least half in foreign
exchange -- depending upon the amount of semi-processed materials used as inputs. On the benefit side, the resulting increase in grain tonnage would have a value of approximately $5 billion a year, while the total value of the additional grain produced over the ten years, allowing for the build-up period, would be about $30 billion. These figures speak for themselves.

In some countries, there is intense political debate as to whether fertilizer plants should be in the public or private domain. In my view, such debate is sterile. Publicly owned fertilizer plants can certainly play an important role. Where we are convinced that they are soundly conceived and will be well managed enterprises, we will consider lending to them -- as we did last year for a potash project in the Congo (Brazzaville). But in view of the magnitude of the capital requirements, as well as the need for access to modern technology, it is unlikely that the developing countries can approach the production targets they have set for themselves unless they succeed in attracting the major international oil, chemical and fertilizer companies to join in partnership with them in creating the new production capacity and in training personnel necessary for its operation. The stakes are too high for the issue to be decided on other than strictly practical considerations.

Fertilizer production is by no means the only industry to receive financing from the World Bank Group. During the past year, we committed over $400 million for a broad range of industrial projects and for development finance companies. In addition, the Bank opened a $100 million line of credit to IFC, the first since charter amendments permitting such loans. Already its effects are evident. Last year, IFC raised the size of its investments to an average of $4.5 million as against a $1.4 million average in its first decade. Three of its commitments in Brazil, India and the Philippines -- were for $10 million or more, compared with a previous high of about $6 million. As in years past, IFC brought in partners from the developed countries for many of its projects.

Our assistance to private development finance companies deserves special mention. Up to now, we have committed about $650 million to these companies which are designed to finance both medium-sized and large industries. But financial support is only part of the story. We have also helped to expand and reorganize some finance companies, to start others, to bring in foreign investors, and to find experienced management. We work closely with the newer companies in their investment operations. As they gain experience, our advisory role diminishes.

Essentially we are institution building -- trying to help create organizations that will become generators of economic progress in their countries. Development finance companies provide medium and long-term loans and equity capital, underwrite securities issues, promote new enterprises, and help entrepreneurs in preparing investment proposals. They are also channels for associating foreign capital and technology with local investors. By helping to mobilize and direct domestic savings into productive activities, they can become an important element in a country's capital market. As local sources of industrial financing on a non-political basis, they can have a long-term impact, much grea
than is suggested by the amount of the Bank Group's investment.

* * *

Basic to improved productivity in both agriculture and industry is the education of men and women who are qualified to run the farms, man the machines, and manage the affairs of societies in transition. That is why I attach so much importance to our efforts in lending for education.

Our investment in education is growing, thanks in no small measure to the cooperation we have received from Unesco, but it is still modest in relation to the totality of Bank financing. It is even more modest in relation to the manpower needs of developing countries. It will grow, but since it will always be only a small part of the total expenditure on education, we are attempting to apply our assistance where it will have the greatest multiplier effect.

Our criteria for financing education have not changed greatly since we began in this field in 1963. We are looking for projects that will make a relatively direct impact on the economic development of a country. This leads us to concentrate on the middle levels of education -- mainly projects for modernizing and expanding secondary education, for technical training in industry, commerce and agriculture, and for primary and secondary school teacher training.

One of the problems we encounter most often relates to curriculum structure -- what is to be taught in the schools we finance. In many countries school systems have been slow to slough off their colonial heritage. Frequently these systems have but one aim: preparation for university entrance; and this does not change even when the secondary school output has overtaken the university input. In such cases, we try to persuade the country to adopt a diversified and modernized curriculum which, along with university entrance, also prepares students for entry into polytechnics, and provides terminal courses leading directly into jobs.

Education -- which is normally one of the largest employers in any country -- remains one of the few industries which has not undergone a technological revolution; despite the insistent demands of modernizing societies, schooling in most countries is still provided on a handicraft basis. This surely will not do. Today educational expenditures in many countries are increasing at about 10 per cent annually while gross national product grows at no more than 3 to 4 per cent. Where this is the case, education is likely to reach the limit of its allowable share of domestic resources long before it has begun to meet legitimate national needs and aspirations.

We need greater productivity in educational systems -- a better relationship between input and output. And this I believe can be had by bringing what is taught and learned into line with what is needed; and by recognizing the potentials of new technology -- particularly television. This will require training teachers so that, whether in the studio or the classroom, they are effective parts of this new technology; it will also require better planning and modern management; and, not least, it will require courageous political decisions which insure that, at any given stage of development, a country is educating the right numbers, at the right levels, and in the appropriate skills.
It is impossible to overemphasize the necessity of more and better planning and execution in the vast field of education. Results -- a generation hence -- in new developing countries which today give education a high priority as against military or certain other non productive expenditures will be striking and important.

* * *

Now let me turn to some of our more important non-financial activities.

When the Bank was established, technical assistance was not foreseen as one of its principal functions. But we are now devoting a substantial amount of time, effort and funds to that activity. Our technical assistance always has an operational orientation -- that is, we undertake it only where it may be expected to facilitate new capital investment in high priority projects. This includes the strengthening of institutions upon which member countries must rely for preparing and carrying out projects. I think we are succeeding in these objectives.

We recently analyzed all the completed sector and feasibility studies organized by the Bank. There have been some 37 of these, which we have either financed ourselves or carried out as Executing Agency for the UNDP. We found that these studies, for which we and the UNDP together had contributed some $15 million, have already led to more than $450 million of investments by the Bank Group. Moreover, some of the financing attributable to the sector studies is only the first step; additional investments are likely to follow. These studies have also been useful in pointing out that certain investments should not be made because a contemplated project would be technically unsound, uneconomic or premature.

Pre-investment studies are extremely complex. In normal lending operations we are simply required to pass judgment on the merits of a proposal already prepared. Pre-investment work, on the other hand, requires the kind of creative technical competence which can conceive and formulate such projects. In addition, it takes a vigorous and constant effort to assure that not only the investment but also the institution-building potentialities of these studies are realized. As an example of how important these institution-building potentialities can be, let me cite the transportation study we started in Brazil two years ago. Initially the study involved the entire railway system of the country, three of its major ports, coastal shipping, and highway development in four states. To work along with the foreign consultants selected by the Bank, the Brazilian Government formed a counterpart organization which is staffed with engineers and economists from a variety of local transportation agencies. The first phase of the study is now completed and phase two, which involves highway studies in fourteen states, was begun last January. The counterpart group formed during phase one has remained intact, is making a significant contribution to phase two, the current effort, and, we hope, will continue to work for a long time to come. Certainly pre-investment activities of this type are far more valuable when what is left behind is not only a study but a local institution with staff trained to carry out similar projects in the future.

* * *

- 6 -
When I spoke here last December, I reported the establishment of the International Centre for Settlement of Investment Disputes. In February, its inaugural meeting was held in Washington. All 28 of the then contracting States were represented. As of today, 55 States have signed the Convention and 36 have deposited instruments of ratification. The wide interest shown by investors, as well as by governments, testifies to the potential effectiveness of the Convention and the Centre.

Another potentially important stimulus to development finance is a system of multilateral investment insurance, to provide essentially the same protection to private foreign investors against non-commercial risks that is presently offered under several national programs. A possible scheme is now under discussion by the Bank’s Executive Directors.

Still a different type of non-financial activity which has occupied much of our attention over the past few years is aid coordination. As I have previously reported to the Council, the Bank has organized aid coordinating groups for nine developing countries, in addition to the India and Pakistan consortia. Nineteen capital-exporting countries are associated with one or more of these groups, and we have also had the benefit of UNDP participation in their meetings. It has proved to be a delicate and sometimes difficult business to harmonize the concerns of the principal participants, but, nevertheless, all are benefiting. Industrialized country members of these bodies are, I think, gaining a greater appreciation of the problems and obstacles to change which exist in particular developing nations. And on the recipient side, it seems to me that there is a new awareness that the quality of performance will largely determine -- country by country -- not only how effectively domestic resources are mobilized and invested, but also the level of assistance likely to be forthcoming from abroad. For the present, we intend to concentrate on improving the quality of existing coordinating groups. However, we are exploring a few possibilities for additional groups; one new one is likely to be created soon, and, over time, there will probably be others.

* * *

Another activity, also related to the building and strengthening of institutions, is the Economic Development Institute, now in its twelfth year of providing training for senior officials of our member governments. There are more than 700 graduates of the EDI who are moving into increasingly responsible positions all over the world, as Ministers, Vice Ministers, Governors of Central Banks, Presidents and Chairmen and Managing Directors of development financing institutions and public authorities. At our recent Annual Meeting I was pleased to note that 13 fellows of the EDI were present as Governors or Alternate Governors of the Bank or the Fund. Five fellows are now serving as Alternate Executive Directors of these two organizations.

One other non-financial activity which I want to mention is an important study we are just beginning. At the recent Annual Meeting, the Board of Governors requested the Bank and the International Monetary Fund to analyze the problem of the stabilization of prices of primary products, and the possible role each institution might play in the solution of that problem. We have completed the
organization of a task force to work cooperatively with the Fund. On our side it will be headed by the Bank’s Director of Special Studies, one of our senior officers.

Mr. President, these are a few highlights of the World Bank Group. Over time we have built up a staff of experienced professionals whose knowledge about the problems and potentials of developing countries is, I believe, unique, and whose services enable the Bank Group to contribute with dedication and with increasing effectiveness to the economic growth of its members.

Yet what we can accomplish depends to a large extent on the environment in which we operate -- and, as this Council knows full well, the present environment, in both developed and developing countries, is in many respects unfavorable.

Political instability is a basic cause of trouble. The last few years have seen political and military conflicts, internal and external, in numerous, widely separated parts of the developing world. The adverse effects are manifold: the attention of the governments of the poorer countries is diverted from constructive approaches to the problems of growth; private investors, both domestic and foreign, are frightened off; and the taxpayers and legislators of the industrialized countries question the wisdom and utility of providing finance for development, with consequent delays and reductions in funding.

A further unfavorable factor is the continuing slow increase in the export earnings of the developing countries. Trade is and must remain the chief source of foreign exchange for economic development -- but we are yet to see the kind of effective action, on either side of the development equation, which is necessary to give a real push to the exports of the developing nations. Let me emphasize that this is not just a matter of the developed countries opening their markets more liberally to imports from the less developed ones, important as that is. It is also a matter of the developing countries adopting economic policies favoring the development of export industries, and then of painstakingly building up those industries to the point where they can assure buyers abroad of a continuous supply of goods of uniformly high quality. The development of export markets is no easy task, but where it has occurred, the results are impressive. They justify, fully, the long sustained efforts which are required.

Finally, of course, there is the basic problem of the inadequacy of public development finance from abroad. On this subject, my views are too well known to need repetition. I do want to urge the members of the Council, however, to give careful thought to the suggestion I advanced in Stockholm two weeks ago -- that to dispel the mistrust, the frustration, the misunderstandings which plague the cause of development assistance today, the leading experts in the world should meet together, study the consequences of 20 years of aid to development, assess the results, identify the errors and propose policies and procedures which might be more effective for the future. As I said in Stockholm, the Bank is ready to help governments to organize and also to provide finance for such an
effort, to make available its store of information, and, if requested, to second staff to the group. Such a "grand assize" would, I am convinced, furnish us a much firmer foundation than we now have for moving ahead in the 1970s.

Meanwhile for the Bank Group the immediate problem of obtaining adequate funds for the operations of our institutions continues -- and with increasing seriousness.

On the World Bank side, our bond issues enjoy a good reception from investors. However, we can offer bonds only with the consent of the governments in whose markets they are to be sold. In our last fiscal year we encountered difficulty in gaining access to those markets. Of the $390 million of new money raised through the sale of long-term bonds, only $32 million was raised outside the United States. Fortunately, however, here the clouds may be beginning to part. Last month we had a successful first public offering of bonds in Sweden amounting to the equivalent of $14.5 million, and later this week we will renew a $5 million issue with the Austrian National Bank. During the coming winter and spring, I hope that we will be offering bond issues in several capital markets outside the United States. In the United States market, we had a $150 million issue in August, and if our efforts in Europe are successful I would hope to obtain permission to sell another large issue in the United States before the end of our present fiscal year.

As to IDA, we still await the collective decision of the contributing nations regarding the replenishment of IDA's resources. The negotiations are disappointingly slow, but a series of meetings with officials of the donor countries is now under way which I trust will be fruitful. I am grateful for the helpful resolutions of support for IDA that have been forthcoming from ECOSOC, from the UNCTAD Trade and Development Board, and most recently from the Second Committee of the General Assembly.

The delay in the replenishment of IDA is beginning to be felt in a lack of finance for many worthwhile projects. IDA has a full pipeline of promising proposals from poor countries in the usual balance of payments difficulties. These countries have been learning to mobilize their resources effectively and can invest productively substantial amounts of external capital if extended on appropriately concessionary terms. It is for these countries that the size and speed of IDA's replenishment are matters of urgency.

I trust that an agreement to replenish IDA -- and at a much higher level than in the past -- will soon be reached. In a very real sense, the measure of support given to IDA will be a test of the dedication of the industrialized nations to the cause of development. Provision of significant new resources for the IDA operation will be evidence of a will, a determination, that the momentum of progress shall be maintained and that opportunities for sound development shall not be lost for want of appropriate finance.
From Address by Mr. Schweitzer before the Economic and Social Council of the UN
November 14, 1967

In its day-to-day operations, whether or not these have involved consideration of requests for compensatory finance, the Fund has repeatedly to deal with problems caused in part by fluctuations in members' earnings from exports of primary products. We are, therefore, always interested in constructive international action designed to mitigate such fluctuations. At the meeting in May 1967 of the UNCTAD Committee on Commodities, when the operation and financing of buffer stocks were discussed, the Fund representative reminded participants of this interest on our part. At our recent Annual Meeting, the Board of Governors adopted a Resolution asking the Fund staff to study, in consultation with the IBRD staff, the problem of stabilization of prices for primary products, its possible solutions, and their economic feasibility. We have already begun work on this study and we shall press it forward. It is a large task and past experience does not suggest easy solutions. Needless to say, in addition to our close collaboration with the Bank, we shall draw on work already done in this field by other specialized agencies and organizations, including the Food and Agriculture Organization; and we expect to benefit from the discussions on commodity problems at the forthcoming UNCTAD session.

It is disturbing to observe the increased difficulties which many developing countries have encountered in recent years in seeking to achieve a sustained and appreciable growth in their per capita real product. I cannot stress too much how vital it is that the industrial countries improve the access to their markets for the developing countries' exports and achieve an adequate flow of development assistance, taking into account the growing level of debt servicing. At the same time the potential for the developing countries to increase the sales of their products--their industrial as well as their primary products--in the expanding markets of the developing world itself should not be neglected. In addition to general development efforts, regional cooperation has proved fruitful in the expansion of these export opportunities--particularly in conditions where financial and exchange rate stability has encouraged close and enduring economic relationships. The Fund is prepared to work with its members on any constructive initiative that promises to promote the expansion of their trade and economic well-being.
Il ne saurait être question de développer et de commenter ici même les diverses réponses qui peuvent être fournies à une question dont les données apparaissent aujourd'hui clairement aux yeux de tous. S'agissant du Fonds Monétaire International, il semble que les réserves qu'il a accumulées au cours des années devraient lui permettre d'agir, notamment en vue du financement de stocks régulateurs dans le cadre d'accords de produits, même si une telle action exigeait des modifications à ses statuts et des changements à sa jurisprudence. Il va de soi que la Banque Internationale et l'Association Internationale de développement auront également un rôle à jouer dans la mise sur pied et le fonctionnement de tels accords. Mais ce n'est sans doute que par la conjonction de leurs efforts en vue de dégager une solution commune, que les deux institutions réussiront, en collaboration avec la conférence des Nations Unies pour le Commerce et le développement, à faire franchir à la Communauté internationale le pas décisif qui s'impose aujourd'hui.

ROUGH TRANSLATION: French statement last paragraph

It is out of question to provide here the answers to a question now clearly stated. Regarding the IMF, it seems that the reserves accumulated over the years could allow the Fund to take action, interalia by financing buffer stocks within the framework of commodity agreements, even if such an action requires a modification of the Fund status. Obviously, IBRD and IDA will also have to play a role for setting up and implementing these agreements. Only through joint effort towards a common solution the Fund and the Bank, in collaboration with UNCTAD, will succeed in showing the way through which the International Community could make the decisive step.
Following our telephone conversation, I attempted to summarize the main points raised in our discussion in your office.

I. Research work to be undertaken as background for Part I

The work program is presented below under five main headings. For the first two, a fairly clear allocation of responsibilities between the Fund and the Bank was proposed. For the other three it did not appear possible to draw a clear cut line, and it was felt that the most efficient way of carrying out the work, for the next few months at least, would be through an integrated Fund/Bank team sitting and working together.

1. Review of price stabilization measures at the national and international level; past experience and proposals made. The Fund would play the leading role, drawing heavily on the knowledge of the area specialists and of the economists following developments in UNCTAD. The work would include a review of the system applied by France in the Franc zone. The Fund would also organize central documentation files. The review of the international commodity agreements will be done in consultation with Bank commodity economists.

2. Diversification, scope and problems. The Bank will play the leading role and draw heavily on the experience of its project and area departments. To the extent feasible, the results of the Joint Coffee Study will also be used.

3. Analysis of fluctuations in prices, income and export earnings from primary commodities of the LDC. Volume, spot prices, export unit values and export earnings. The main contribution of the Bank would be the organization of a computation program for assessing fluctuations from the trend by commodities and by countries. This would provide the statistical background for the analysis of the link between price, income and export earnings stabilization. The development of the research program would require an integrated Fund/Bank team. Full use should be made of IMF statistics, but data from other sources would also have to be used; an important consideration will be the availability of data in a form appropriate for computation.

4. Review by commodities.

   - Supply and demand response to price changes;
   - Review of past trends and future prospects;
   - Initial review of feasible measures for selected commodities.

The Bank has started work in these three directions.

5. Buffer Stocks. For selected commodities, assessment of size of stocks, financial requirements, impact of a buffer stock scheme on income and export earnings. The work on this should be started as soon as possible.

II. Outline of Part I

I understand that the writing of Part One will probably not be started much before Christmas and that the outline will be reviewed, in the light of the preliminary findings emerging from the work indicated under I. We have drafted a revised outline which, together with your outline, might be discussed before your departure.
Office Memorandum

TO : Mr. Irving S. Friedman
FROM : Frank A. Southard, Jr.
SUBJECT : Stabilization of Commodity Prices

DATE: October 31, 1967

With reference to your memorandum of October 25, I wish to inform you that Mr. J. J. Polak will be chairman of the Fund's interdepartmental committee on the above subject. I have spoken to Mr. Polak and he will be in touch with Mr. Avramovic.

cc: Mr. Polak
Mr. Polak of the Fund called me today. He said that he had the draft of a statement to the Board and that he had difficulties with the proposed changes that I had suggested in the statement. What I had added to the statement was an addition to the study covering the problem of fluctuation - that it cover also the level of prices. This was consistent with the original Dakar Resolution.

After some discussion we agreed that the way to handle the matter would be to eliminate both the reference to fluctuations and to level. By cutting out the appropriate wording we agreed on the statement.

I gave the agreed statement to Mr. Fowler. He and Mr. Hebbard are to get together on the timing of presenting it to the Board.

cc: Messrs. Friedman
    Avramovic
Instead of our sending a separate but virtually identical memorandum, is it possible for us to have a joint memorandum to the Executive Directors through our two Secretaries?

Fund proposed draft on Study on Problem of Stabilization of Prices of Primary Products (from G. Nicoletopoulos).
Mr. Friedman

Attached is the second paper on this subject and a proposed Bank paper to the Ex. Dir. for your review and approval.

When you return, we will submit your approval to the IMF.

Donald D. Fowler
Deputy Secretary
10/16/67
FROM: The Deputy Secretary  
October, 1967

STABILIZATION OF PRICES OF PRIMARY PRODUCTS

There is attached a statement on the procedure to be followed by the staffs of the Bank and the Fund in the preparation of a study on the problem of stabilization of prices of primary products.

A statement, substantially similar to that attached, is being distributed by the Fund today to its Executive Board.

Distribution

Executive Directors and Alternates
President
President's Council
Executive Vice President, IFC
Vice President, IFC
Department Heads, Bank and IFC
STUDY ON PROBLEM OF STABILIZATION OF PRICES OF PRIMARY PRODUCTS

The Board of Governors of the Bank under Resolution No. 239 adopted at the Annual Meeting in Rio de Janeiro, has called on the President to have the staff, in consultation with the Fund, prepare a study of the problem of stabilization of prices of primary products at a remunerative level. This study is to be transmitted by the Executive Directors, with such comments and recommendations as they may wish to make to the Board of Governors, if possible at its next Annual Meeting, for consideration and appropriate decision. A parallel resolution calling on the Managing Director of the International Monetary Fund to have the staff of the Fund, in consultation with the Bank, prepare a study on the same problem was adopted by the Board of Governors of the Fund at the meeting in Rio de Janeiro.

Staff members of the Bank and Fund have exchanged views regarding the procedure to be followed in the preparation of the parallel studies by the respective staffs of the two institutions. They concluded that the studies could conveniently be divided into two parts, the first covering introductory and general aspects of the problem (including a discussion and an evaluation of the various possible solutions leading to the stabilization of commodity prices at a remunerative level which have been suggested so far), and the second, discussing the role, if any, that the Bank or the Fund could play in the solution of the problem. They agreed that the most expeditious way to proceed with the task would be for the staffs of the two institutions to prepare jointly the first (i.e., general) part of these studies. For obvious reasons, the second part, which would contain a discussion of the possible role that each of the two institutions could play in this field, would be prepared separately by the staff of each of the two institutions, but in close consultation with each other.

In the course of the preparation of the studies, the staffs of the two organizations intend to maintain contact with other interested international organizations, in particular UNCTAD and FAO.

While it is too early to indicate the time which the study will require, the staff has been instructed to proceed on the working assumption that it would be highly desirable to finish the report at an early enough date to permit consideration by the Governors at the 1968 Annual Meeting.

The Economic Adviser to the President
October 26, 1967
FROM: The Deputy Secretary

October, 1967

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The Economic Adviser to the President
October 26, 1967
TO: Mr. M.M. Mendels
FROM: Irving S. Friedman
SUBJECT:

Instead of our sending a separate but virtually identical memorandum, is it possible for us to have a joint memorandum to the Executive Directors through our two Secretaries?
MEMORANDUM

TO: Mr. Friedman

FROM: J. J. Polak

SUBJECT: Stabilization of Prices of Primary Commodities

October 17, 1967

Following the discussion in Mr. Southard's office yesterday, I can inform you that the Fund team that would be entrusted, together with their colleagues in the Bank, to prepare a common Part I of the study envisaged, would be composed as follows:

Mr. Fred Hirsch (Research)
Mr. Robert J. Familton (ETR)
Mr. Duncan Ridler (Research)

I would suggest that as soon as a decision has been taken on a similar team from the Bank side, that the two teams get together and start to work as soon as possible.

I believe it was our understanding yesterday that they would work as an integrated group, with the right to call on other staff members of the Fund and Bank as necessary. At the same time, each team would, of course, keep in contact with appropriate staff members, and through them with the Management, in its own organization.

cc: Deputy Managing Director
Mr. Gold
Mr. Sturc
Mr. Hirsch
Mr. Familton
Mr. Ridler
DRAFT RESOLUTION

STABILIZATION OF PRICES OF PRIMARY PRODUCTS

WHEREAS Governors of the Bank and the Fund for Cameroon, Central African Republic, Congo (Brazzaville), Ivory Coast, Dahomey, France, Gabon, Upper Volta, Madagascar, Mali, Mauritania, Niger, Senegal, Chad and Togo have transmitted to the President of the International Bank for Reconstruction and Development the following request:

CONSIDERING the decisive importance of the stabilization of prices of primary products at a remunerative level for the economic advancement of the developing countries and the improvement of the standard of living of their populations, the Governors meeting in Dakar request that in Rio study be made of the conditions in which IMF, IBRD and IDA could participate in the elaboration of suitable mechanisms involving balanced commitments on the part both of the producing and of the consuming countries, and devote the necessary resources thereto.

AND WHEREAS the Board of Governors recognizes the importance of this subject in relation to the purposes of the Bank,

NOW THEREFORE the Board of Governors resolves that the President is hereby invited to have the staff, in consultation with the Fund staff, prepare a study of the problem, its possible solutions, and their economic feasibility, in the light of the foregoing, to be submitted to the Executive Directors who are requested to transmit it with such comments or recommendations as they may have to the Board of Governors for consideration and appropriate decision by the Board, if possible at its next Annual Meeting.
OFFICE MEMORANDUM

TO: Mr. I. S. Friedman

FROM: Bela Balassa

SUBJECT: Suggestions for a Study of Price Stabilization Schemes

DATE: October 13, 1967

In the following, I provide a short summary of the remarks I made at today's meeting concerning a study of price stabilization schemes pursuant to the Rio resolution.

1. Statistical Investigation

(a) Extent of price fluctuations for the major primary commodities in the postwar period.

(b) Relative importance of price fluctuations for instability in the foreign exchange receipts of developing countries.

(c) Approximate magnitude of demand and supply elasticities for individual commodities.

(d) Relative importance of LDC's in the markets for primary products.

(e) Substitution possibilities for LDC commodities.

2. Objectives of a Scheme

(a) Stabilization of prices

(b) Stabilization of export earnings

(c) Transfer of funds through raising prices

3. Implementation

(a) Choice of commodities. Feasibility.

(b) Choice among possible schemes: buffer fund, buffer stock, quotas, purchase contracts.

(c) Distribution of benefits among LDC's

(d) Effects of alternative schemes on export earnings, production, incentives, resource allocation, government revenue.

(e) Cost of alternative schemes: administration, stockpiling, raising prices.

(f) Cost-benefit analysis of alternative schemes.
4. Effects on Bank-Fund Operations

(a) Implications for the acceptance of the Supplementary Financing Schemes

(b) Limitations on the availability of funds

(c) Implications of the automaticity of the scheme for the Bank's influence on policy-making in developing countries.

Dictated but not read.

B.Balassa:pm

cc: Messrs. Kamarck, Stevenson, de Vries, Avramovic, Isaiah Frank, Goreux, Sundrum, Macone
OFFICE MEMORANDUM

TO: Mr. Dragoslaw Avramovic
FROM: Irving S. Friedman
SUBJECT: Stabilization of Prices of Primary Products - Governors' Resolution No. 239

DATE: January 2, 1967

With respect to the question of Board discussion of the Study on Stabilization of Prices of Primary Products, Mr. Woods has sent the suggested memorandum to Dr. Donner. Would you please undertake to make certain that we do discuss this matter with the Executive Directors before conclusions have been formulated.

cc: Mr. Kamarck
Tariff Pact between India, the U.A.R. and Yugoslavia  
FIN.TIMES, 15/12, New Delhi.

India, Yugoslavia and the United Arab Republic on 14/12 agreed to grant each other tariff preferences to increase the flow of mutual trade. A communique issued at the end of a conference in New Delhi of Ministers of Economic Affairs of the 3 countries announced that the exchange of mutual preferences would be extendable to other developing countries. The new agreement is the first in which developing countries have made preference arrangements among themselves. The aim of the agreement is to make all 3 countries buy more traditional and manufactured goods from each other and less from industrialized countries.
OFFICE MEMORANDUM

TO: Miss Gertrude Lovasy
FROM: Bela Balassa
SUBJECT: Comments on "Effect of Reducing Barriers to Trade in Primary Products on Developing Countries' Exports"
DATE: December 6, 1966

1. This is an interesting paper that provides an antidote to the prevailing overoptimism as regards the possible effects of lowering trade barriers on the exports of primary products from developing countries. It appears, however, that the position taken in the paper errs in the opposite direction and underrates the prospects for the expansion of these exports that would follow reductions in trade barriers. I will comment on several issues here: the extent of tariff protection on primary products; the impact of subsidies on trade in temperate zone foods; cotton subsidies in the United States; the protection of fuels; and estimates on the effects of the removal of trade barriers on imports of primary goods.

Tariff Protection of Primary Products in Industrial Countries

2. The paper reaches the conclusion that "with some minor exceptions ... duties and charges collected on primary products (other than tobacco and petroleum) appear to have been moderate compared to import values." (p. 7). But is this the relevant comparison? It is easy to see that the ratio of tariff receipts to import values is equal to an arithmetical average of tariffs weighted by the imports of the country concerned. This weighting procedure is subject to a...
downward bias, however, since it gives large weight to imports that are admitted duty free or bear low duties while commodities whose imports are restricted by tariffs have small weight and goods subject to prohibitive duties do not figure in the calculation at all. Accordingly, alternative weighting procedures should be used to reduce or eliminate this bias.

1 A related question is that the data cited in the paper do not provide sufficient disaggregation. Thus, in Table 2 on tariff proceeds in relation to import values, all primary goods other than sugar, coffee, wine, tobacco, and petroleum are lumped together. And while Annex Table 1 gives information on tariffs for twenty-three commodity categories, the wide range of tariffs applying to many of these product groups makes it difficult to evaluate the results. 2

Finally, in distinguishing between primary goods according to whether they are subject to "light" or "heavy" protection (Table 4), commodities at different levels of transformation are often grouped together. This is the case for textile fibers (raw and processed), tropical wood (roundwood and sawnwood), meat and fish (fresh and processed), fruits and vegetables (fresh and processed), cocoa (cocoa beans and products), as

1 On this point, see my "Tariff Protection in the Industrial Countries: An Evaluation", Journal of Political Economy, December, 1966

2 At the same time, the statement that "the heavy U.S. tariff on soybeans and oil as well as on groundnuts have little practical significance." (p. 5) is correct as far as soybeans are concerned but not for groundnuts. In fact, the high tariff on groundnuts and groundnut oil practically excludes imports of these commodities into the United States and thereby protects the domestic output of soft vegetable oils.
as well as for oilseeds and oils.  

4. The inclusion of commodities at different levels of fabrication in the primary products category leads me to the question of effective tariffs. Throughout the paper, nominal tariffs (statutory rates) are shown. But while these can be taken as an approximation for the effective rate of protection in the case of raw foods and materials, different considerations apply to processed goods. In the latter case, effective tariffs -- expressing the extent of protection of value added in processing -- generally exceed nominal duties because the products in question bear higher tariffs than their inputs. At the same time, one should not conclude from trade data that processed goods are of little importance for developing countries since the exports of these commodities have been obstructed by the high degree of protection in the industrial nations.

Other Forms of Agricultural Protection in the Industrial Countries

5. The use of subsidies as barriers to trade in foodstuffs is a further consideration. Aside from a footnote on p. 23 in the section

1 Table 4 considers agricultural commodities only. At the same time, fruits (other than bananas and citrus fruits), vegetables, fish, and some further agricultural products, accounting for one-fifth of exports, are lumped together in the "other" category.

2 It is a different question that an increase in the exports of processed goods following reductions in tariffs would be partly offset by a decrease in the exports of raw foods and materials. On this and related issues, see my "The Structure of Protection in Industrial Countries and its Effects on the Exports of Processed Goods from Developing Nations."
on sugar, subsidies are not mentioned in the paper. This omission accounts for the statement that "trade barriers against the imports of primary products among the principal importing areas are the lightest in the United Kingdom." (p. 6). Different conclusions apply, however, if we consider that the system of agricultural protection in Britain is based on subsidies (deficiency payments) rather than tariffs. At the same time, one may question the statement that in the United Kingdom, the "shifting the burden to consumers [the substitution of tariffs for subsidies] has been under consideration for some time." (p.23n). Britain refused to change her system of agricultural protection in the course of the Brussels negotiations on entry into the Common Market in 1963, and neither has she given indication of her willingness to undertake such a change in recent declarations on the desirability of participating in the EEC. The reason is simple: the application of variable levies in effect in the Common Market would raise food prices to a considerable extent, and thereby contribute to increases in wages and industrial costs in Britain.

6. In turn, a complicated system of price supports and quotas is applied in the United States, while the Common Market levies variable duties on the principal temperate zone foods and subsidizes the domestic production of rapeseed and olive oil. A further problem is that the measures of protection used in regard to a particular commodity often differ from country to country. Correspondingly, in

In the case of sugar, for example, the Common Market levies an 80 percent tariff while the United Kingdom uses subsidies and the United States quotas to protect domestic production.
the case of most temperate zone foodstuffs, the tariff figures shown in Table 2 and Appendix Table 1 do not give an appropriate indication of the extent of protection and would have to be replaced by information on "implicit" tariffs, calculated as the percentage difference between the domestic and the import price.\(^1\)

Cotton Subsidies in the United States

7. In a discussion of agricultural subsidies, special attention should be given to cotton. Until recently, the United States was a residual supplier of cotton in the world market in the sense that she supplied the difference between world consumption and the output of other nations. As developing countries increased their output, this policy has come to be revised, however. For one thing, the U.S. export price -- and hence the world market price -- has been reduced to improve the competitiveness of American producers; for another, the new U.S. export target for cotton has been set at a level exceeding average exports in the last four seasons by one-half.\(^2\) At the same time, the United States provides an export subsidy of 5.75 cents, amounting to approximately one-fourth of the export price of cotton.

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\(^1\) Such calculations have been made by Political and Economic Planning as well as by the EEC Commission who proposed the study of the "montant de soutien" of domestic agriculture in the major industrial countries.

\(^2\) Cf. B. Varon, "Recent Developments affecting Cotton," IBRD Commodity Note No. 55.
It can be assumed that without this subsidy the world market price would be higher and U.S. exports smaller. In this connection, it may be noted that the decline in the world price of cotton (c.i.f. Liverpool) from 27.8 cents per pound 1959/60 - 61/62 to 26.3 cents in 1965/66 reduced the value of exports of cotton producers in developing countries by about $75 million. Should these countries replace U.S. exports of cotton in the world market, their export earnings would rise by a further $350 million. And, inasmuch as the higher price would provide incentives to foreign producers to expand output, in the absence of domestic subsidies in the United States they might eventually encroach on the U.S. market for cotton, too. 1

The Protection of Fuels

8. It is argued in the paper that on account of the very inelastic demand, the high extent of protection on petroleum "has not prevented a steady ... and a rapid increase in consumption and imports." (p. 7). But the relevant question is whether and to what extent the imports of petroleum and petroleum products into the industrial countries would be larger in the absence of barriers to trade. The answer to this question will depend on the height of trade barriers, the substitution possibilities between petroleum and other sources of energy, and the elasticity of domestic supply. This question is of especial interest

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1 Gale Johnson's statement to the contrary does not seem to take account of the possibilities for expanding cotton production in the developing countries. It should be noted in this regard that aside from the present low prices the threat of the dumping of U.S. surpluses provides a disincentive for the expansion of production in these countries.
in the United States where quotas restrict imports to about 12 percent of domestic consumption.

9. In an article published in the October, 1964 issue of the Southern Economic Journal, M. A. Adelman has estimated the welfare cost of the protection of petroleum in the United States. Adelman notes that the price of import licences can be taken to express the excess cost of domestic oil over imports. Since the c.i.f. price of crude oil imported from the Middle East is $2.00 per barrel and licences sell for $1.00, the "implicit" tariff on crude oil is 50 percent. In view of the small share of imports in consumption, even relatively modest domestic supply elasticities would entail large proportional increases in imports in the event that trade barriers were eliminated. While I do not wish to hazard a guess as to the magnitude of possible changes, it may be of interest to note that an increase in quotas, equivalent to 1 percent of oil consumption in the United States, would lead to an increase of the exports of developing countries by about $100 million.

10. The substitution of petroleum for other sources of energy following a fall in crude oil prices, too, would increase imports into the United States. This substitution would be of importance also in Western Europe where tariffs are often high and domestic coal production

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1 Incidentally, I do not see why "it is difficult to envisage how Q.R.'s could be manipulated in such a way as to cause a certain additional share of consumption to be covered by imports." (p. 13) At least in the case of sugar and petroleum, quotas are determined in proportion to domestic consumption.
is increasingly subsidized. Petroleum imports into Europe would increase further if the high taxes on gasoline were reduced since the elasticity of demand for gasoline is higher than it is commonly presumed.

Estimates on the Effects of the Removal of Trade Barriers on Imports of Primary Goods

11. I come now to the estimates on the possible effects of the elimination of trade barriers on the exports of the primary products from developing countries. I am in broad agreement with the criticisms levied against the estimates of the UN Secretariat and D. Gale Johnson. There is little doubt that one cannot provide reliable results without appropriate disaggregation. At the same time, for reasons indicated in the previous paragraphs, I would expect that, in the event of the removal of trade barriers, the agricultural exports of the developing countries would increase by considerably more than the $750-800 million suggested in the paper. (p. 17). Further increases would take place in petroleum and in some metals.

12. As regards tropical products, I do not find Maizels' conclusions surprising; they necessarily follow from the assumption of inelastic demand for these products. Let me add here that my own calculation shows an increase of $77 million in the estimated 1970 f.o.b

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1 At the same time, I would question that statement that the view expressed in the paper is "confirmed" by J.M. Richter's rather weak analysis.
value of coffee exports following the elimination of tariffs and excise taxes in the major European countries. The corresponding estimate of the FAO is $81 million while Tinbergen's figure for the year 1959 is $54 million.²

13. Lastly, I come to the criticism of Harry G. Johnson's February 1966 article in Economica on the possible expansion of sugar exports following the elimination of protective and revenue measures in the industrial countries. Two of the assumptions made by Johnson have been subjected to criticism in the paper: the replacement of the preferential margin paid by the United States and the United Kingdom to foreign suppliers by deficiency payments, and the complete disappearance of domestic sugar production in the industrial countries under conditions of free trade.

14. I tend to agree with the first objection. For reasons of internal politics, it is unlikely that the industrial countries would replace preferential margins by deficiency payments to foreign suppliers although this may happen in some instances because of external political considerations. But, if we look for political feasibility, Johnson's entire paper may be rejected for lack of realism. One may suggest, therefore, that Johnson had the "right" to make the assumption referred to above but he should have indicated the implications of the removal of this assumption.

1 Bela Balassa, Trade Prospects for Developing Countries, Homewood, Ill., Richard D. Irwin, 1964, p. 112

2 Jan Tinbergen, Shaping the World Economy, New York, Twentieth Century Fund, 1961, p. 300. Incidentally, the assumptions underlying the FAO estimates are available in mimeographed form.
15. In turn, while it is not realistic to assume that the domestic production of sugar would entirely disappear in the industrial countries if the c.i.f. import price was 5 cents a pound, neither would I expect that a substantial part of production would continue. In this connection, it should be recalled that in such an event sugar prices would fall by 33.2 percent in the United States which accounts for 35 percent of the sugar production of the major industrial countries, while prices would decline by 44.4 percent if the 80 percent tariff was eliminated in the EEC which accounts for another 54 percent of output. If one considers existing profit margins in US and EEC agriculture, it may be assumed that not more than a small fraction of sugar producers would survive the transition to free trade. This would be hardly surprising since, due chiefly to high labor costs, U.S. and European producers are at a comparative disadvantage in producing sugar.
The concept of international organization of commodity trade was first brought under international discussion by a series of statements made by French representatives at intergovernmental meetings in the years 1961-64. At the United Nations Conference on Trade and Development, held in Geneva in 1964, a group of African countries took the initiative of sponsoring a recommendation on the possibilities of proceeding toward an organization of world commodity markets at remunerative prices. The Conference, in Annex A.II.8. of its Final Act, recommended "the establishment ... of an ad hoc working party of government experts responsible for studying the proposals and preparing a program of action for the international organization of commodity trade which will ensure that the developing countries will at all times be able to market their export products in increasing quantities and at remunerative prices, the 'purchasing power' of which should not decline in relation to the prices of the essential goods imported by those countries, devoting their attention during the first stage to the commodities of greatest importance to the international trade of the developing countries."

The ad hoc working party on the International Organization of Commodity Trade was accordingly established and held its first meeting in Geneva in July 1965. It concluded its opening examination of the subject by agreeing "to recommend to the Committee on Commodities that the Secretary-General of UNCTAD, in close collaboration with FAO and other relevant intergovernmental organs, with the assistance of governments, as appropriate, should furnish to the working party the following studies in the light of recommendation A.II.8 as well as A.II.1 of the first session of UNCTAD:

(a) comprehensive and practical studies on three illustrative primary products, one drawn from each of the three categories indicated in paragraph 12. It was agreed that the studies should relate to cocoa, rubber and selected fats and oils. By examining the particular problems of a sample commodity from each of these categories, a broad range of the problems facing the international organization of commodity trade would be revealed."

General terms of reference for the three studies then followed.

At the same time, the ad hoc working party also requested a "study of the terms of trade and the import purchasing power of the exports of the developing countries," and "an examination and definition of criteria for selection of a list of commodities of interest to the developing countries in regard to the recommendation A.II.8." FAO has primary responsibility for the preparation of the studies on cocoa and on selected fats and oils. All the above-mentioned studies are to be examined by the second session of the ad hoc working party, currently scheduled for 31 March-14 April 1966 in Geneva.

The following text, with minor modifications only, constitutes a paper contributed by FAO to UNCTAD and considered by the ad hoc working party at its first session.

The purpose of this paper was to present some preliminary notes on major questions which will come up for consideration in any attempt to translate the concept of an international organization of commodity trade from a broad statement of principle into an operating policy. The paper is mainly concerned with agricultural commodities exported by

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1 See, for example, those of November 1961 by Mr. E. Pisani, Minister of Agriculture, at the eleventh session of the FAO Conference, and Mr. W. Baumerger, Minister of Finance and Economic Affairs, at the GATT Ministerial Meeting, and that by Mr. H. Juslin at the 130th meeting of the United Nations Commission on International Commodity Trade in May 1962. The texts of these and other statements are reproduced in United Nations Conference on Trade and Development, Volume III, Commodity Trade, p. 486-494.

2 These three categories were listed as "(a) tropical products without close substitutes; (b) raw materials with synthetic substitutes; and (c) commodities produced both in developed and developing countries."

3 The FAO study was prepared by the Commodity Policy Branch in consultation with the Economic Analysis Division. The full text is contained in document TD/B/3/Add.l of the first session of UNCTAD.
developing countries. Thus, not all the arguments used apply to nonagricultural commodities, nor are the agricultural products of the temperate zone specifically dealt with. More detailed discussion of major agricultural commodity problems, present and prospective, as well as analyses of measures to deal with them can be found in the FAO publications listed at the end of this paper and in the papers submitted by FAO to the United Nations Conference on Trade and Development.

In the light of the relatively slow progress in the past toward generally acceptable measures to promote the steady expansion of world trade in the interests of overall development, many of the issues that underlie the recommendation may appear intractable. Nevertheless, in the new world climate of opinion ushered in by the 1964 session of the United Nations Conference on Trade and Development, measures to deal with world trade problems of developing countries can no longer be considered as inherently impracticable on the grounds that they are politically or technically difficult. It is a time for bold new initiatives and experiments and for the constructive negotiation of the conflicts that will inevitably arise. This is the spirit and the hope in which FAO has presented its views and has been actively participating in UNCTAD's work on the international organization of commodity trade.

Aspects of international organization of commodity trade

As implied by the UNCTAD recommendation, "organized trade" appears to a great extent analogous with "managed marketing" as it has been applied to domestic agricultural markets. The implementation of managed marketing requires the adoption of measures harnessing the forces of supply or demand, or both, to attain certain objectives, usually specific levels of prices, sales, and earnings or incomes.

Similar but more modest objectives have for some time been pursued in international markets under commodity agreements limited to individual products. However, the UNCTAD recommendation embodies several new features. One is that the objective relates to a selected group of countries, namely developing countries, implying that the broad aim is economic development. A second feature is the organization of commodity markets in general rather than, as in the past, of individual products meeting with special difficulties. A third feature is the emphasis on the aim of developing countries to export products in increasing quantities. Further, the price goals are defined as "remunerative" prices in real terms, that is, relative to the prices of essential imports of developing countries.

While the immediate objectives are stated in terms of assured prices and increasing quantities of exports, the ultimate goal is to increase the foreign exchange earnings of the developing countries in order to promote an adequate rate of economic development. The recommendation thus constitutes a part of the overall system of world trade envisaged in the Final Act of UNCTAD. This is the context in which it should be considered.

Taking this view, and noting that the export commodities of developing countries differ greatly with regard to physical characteristics, organization of production and trade, and the national policies affecting them, one may readily see that there cannot be any single definition of the concept of international organization of commodity trade applicable to all products. Rather, it will be necessary to search for a variety of measures, distinct but co-ordinated, that may be implemented in an attempt to arrive at the goals specified in the UNCTAD recommendation. In fact, the concept can hardly be defined realistically except in relation to feasible methods of implementation, which may be worked out in progressive international consultations.

Since many of these measures will require simultaneous and co-ordinated action by importing and exporting countries, and hence a multilateral undertaking of commitments, use will presumably have to be made of some kinds of international commodity agreements. These, however, will have to be more comprehensive in both their aims and their methods than were those envisaged under the Havana Charter, which hitherto has been the guideline for negotiation of commodity agreements. In particular, they cannot be limited to temporary treatment of commodities affected by "special difficulties" to be identified case by case.

It should also be recognized that, although the UNCTAD recommendation speaks of marketing at "remunerative prices," other types of measures can also contribute to the achievement of the goals. They may include traditional measures to improve access to markets, promotion of demand, etc., as well as systems by which developing countries are aided through direct financial transfers, either in place of measures to raise prices above market levels or in the event of shortfalls in export earnings generally or for given products.

Some of the objectives of the recommendation may require clarification and interpretation in further consultations. Thus the assumption that all individual commodities can "at all times" be marketed in increasing quantities may have to be reviewed. A sustained attempt to ensure such expansion independently of the growth of consumption could defeat the basic purpose of the recommendation. Rather, the appropriate aim is to ensure a predictable and adequate expansion in foreign exchange earnings of the developing countries from the export not only of traditional but also of new products.
Moreover, the objective of attaining remunerative prices (the concept of which is discussed in the next section) has implications for economic development going beyond the earning of foreign exchange. These implications affect, *inter alia*, the incomes of producers and the prices paid for various commodities by consumers. The problem of long-term adjustments in production of commodities with definitely unfavorable demand prospects must also be faced. Some conflicts may arise in taking account of these aspects.

The international organization of commodity trade implies a redistribution of income between developed and developing countries and among the countries in these two groups. This is also one effect of international economic aid. Hence, in the formulation and implementation of the international organization of commodity trade, the broad background of trade-aid relationships will have to be taken into account.

The concept of "remunerative prices"

The concept of remunerative prices for developing countries can be interpreted in different ways depending on whether producers' incomes, the government revenue, or the foreign exchange earnings of the country are under consideration.

The price may be regarded as remunerative from the producer's point of view if it is sufficient to keep him in the production of the export commodity at accepted levels of income. From the viewpoint of public revenue in a developing country, a remunerative export price is one which not only meets the income requirements of the producer, but also leaves a margin for taxation, e.g., by means of export levies or through the operation of statutory marketing boards.

From the viewpoint of foreign exchange earnings a developing country may not consider its export prices generally remunerative unless its exports, together with the inflow of external financial and other assistance, on commercial or aid terms, yield sufficient external resources to make possible a satisfactory rate of economic-development. It is on this aspect that the UNCTAD recommendation concentrates attention, although it defines remunerative prices in terms of maintaining a minimum ratio to the prices of essential imports, rather than referring to any particular magnitude of export earnings.

It is evident that there can be no definite rules or principles for establishing *a priori* what the remunerative price should be for any particular commodity or for exports as a whole, whether from an individual country or a group of countries. This fundamental element for an international organization of commodity trade thus cannot be objectively determined, but will have to be the result of negotiation. This is so whether the negotiations are concerned with agreeing to a specific price or with the search for a formula on which to base price adjustments, or even with deciding the specific machinery, criteria and principles to guide price determination.

Following up the UNCTAD recommendation's definition of a remunerative price as one that preserves a minimum relationship with the prices of essential imports of developing countries, one may now consider the possible operational approaches. It will be immediately obvious that most of the problems encountered will require solutions of a largely political nature and are technical only at a secondary level. The question thus will be one of reaching broad agreement at world policy level with regard to the approximate goals that it is desired to reach, and subsequently to work out, through further negotiations and consultations of a more technical nature, the appropriate tools.

One of the first policy decisions would have to relate to the export commodities to be covered by the system. The UNCTAD recommendation stressed that early attention should be given to the commodities of greatest importance to the developing countries. This should be the starting point. The impact of managed prices on the different commodity situations, as discussed later in this paper, would also have to be taken into account in the selection of commodities. The basis for determining which commodities were of major importance and therefore eligible for price adjustment, and which were minor and thus liable to exclusion, would have to be defined. Other questions would include how to treat agricultural commodities in processed form and exports of manufactures from developing countries.

The basic level of real price for the selected export commodities, individually or by groups, would have to be defined. This would be the minimum purchasing power of the export prices, in terms of the prices of essential imports of developing countries below which, in accordance with the recommendation, future export prices should not be allowed to fall. In one approach, this decision could turn on the selection of the base period, within which the relationship between export and import prices could be regarded as "normal" or minimum for purposes of price adjustment.

Policy should also determine the timing and methods of adjusting the "normal" or minimum price. It might be thought sufficient, for instance, in the negotiation or renewal of commodity trade, to give general consideration to the changes which had taken place (or were likely to take place) in the prices of the essential goods imported by developing countries. At another extreme, provision might be made to link the minimum real export price for the particular commodity with an index of the prices of essential imports, through an arithmetic formula working
automatically. An intermediate method might be to adjust the commodity price in line with the indications of a formula, but not necessarily applying it automatically.

If it were decided to adjust the normal or minimum price by means of a formula, the need would arise for an index or indices of the prices of essential imports of developing countries. Most measurements of the terms of trade between agricultural commodities and prices of manufactured goods (or between exports from and imports into developing countries) are currently based on price indices computed by the United Nations and FAO. These are the United Nations Export Unit Value Index of Manufactured Goods, the United Nations Price Index of World Trade, with its subindices of import and export prices and their regional subgroups, and the FAO Index of Average Export Unit Values of Agricultural Products, with its subindices for commodity groups and for different regions.

These indices were not designed to serve as basic indicators for calculating the purchasing power of commodity prices in developing countries. The Export Unit Value of Manufactured Goods reflects the prices of manufactures exported from 12 industrial countries: Belgium, Canada, France, Federal Republic of Germany, Italy, Japan, Luxembourg, Netherlands, Sweden, Switzerland, United Kingdom, United States. Some 70 percent of the manufactured exports of these 12 countries flow to other developed countries, including countries with centrally-planned economies. The composition of the 30 percent which is imported by developing countries as a group probably departs considerably from the weightings used in constructing the index. Moreover, manufactured goods exported by countries with centrally-planned economies are not included. The subindex of import prices of the United Nations Price Index of World Trade includes in its definition total imports, rather than essential imports as defined in the UNCTAD recommendation.

The question of constructing new indices for the purpose of implementing the remunerative price recommendation would therefore arise, leading to the need for a clear definition of essential imports. There would be no problem about including manufactured imports needed and purchased for specific development plans and projects, although the composition of the basket would vary widely from country to country. Difficulties would arise about imports of consumer goods and especially foodstuffs. The treatment of both capital and consumer goods, especially food, imported as aid in kind would have to be discussed. The adjustment could conceivably be approached on the basis of a global list of imports considered as essential for developing countries as a whole. On the other hand, it might be necessary to contemplate the preparation of such lists by groups of countries exporting the same commodity to a certain minimum extent, e.g., the coffee or cocoa or banana exporting countries, giving a different formula for each commodity.

Policy implications of price management

This section attempts to set out some of the major policy implications for various commodities which would require close attention in any arrangement substituting management for free market prices. While the section is brief, it is hoped that some of the economic interrelations which would be affected by an organization of trade are touched on sufficiently to indicate the complexity of the matters to be handled and the directions in which solutions might be sought. A basic requirement for the success of price management arrangements is that demand be relatively price inelastic. This is the case with most agricultural commodities taken individually. However, should price management affect the price of a very large number of commodities simultaneously, this assumption requires reconsideration.

DEMAND AND SUPPLY REACTIONS

In developed countries

In most of the developed importing countries domestic prices of major temperate zone foodstuffs are insulated from international prices. In such cases, imports are residuals between the domestic demand (at internal prices) and domestically produced supplies. Where imports are subject to variable import levies or quantitative restrictions, the raising of world prices to the level of domestic support prices would not affect the quantities demanded or imported. Where specific or ad valorem import duties are applied the domestic price and, hence, the quantity demanded would be affected, but since the price elasticity of demand is normally considerably smaller than unity, the effect is unlikely to be very great.

Foodstuffs of tropical origin are also normally faced by a relatively inelastic demand. Changes in international market prices are normally reflected at retail level, although in some cases marketing margins, internal taxes and fiscal import duties weaken the link between the two. Consequently, if the prices of these commodities (which are exported solely by developing countries) were raised, larger export returns would result.

For commodities exported in competition with produce of the developed countries, the possibility of increasing the developing countries' export earnings through higher prices will depend on the relative

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elasticiies of supply for the product in question in the two groups of countries. If these responses are such as to endanger the share of the developing countries in the total market, special measures might have to be contemplated to reserve them a portion of the market growth.

In the specific case of raw materials of agricultural origin, however, higher prices for the natural product might divert demand to synthetic or other substitutes, and encourage the development of new substitutes. A policy aiming at raising prices for these commodities may therefore be self-defeating, unless measures are adopted to limit the scope for substitution, or to compensate for its effects.

In developing countries

Should the prices of the commodities imported by developing countries be raised, the quantity imported might be reduced, because of the limited availability of foreign exchange. The larger the share of exports which is taken by developing countries, the greater the danger of a fall in the total quantity of trade. The most evident case is rice, of which 70 percent of world exports are directed to developing countries, but similar if lesser danger exists for other commodities (e.g., sugar, fats and oils, tea, cotton, jute, etc.). This difficulty could, however, be overcome through the adoption of discriminatory price policies, by which importing developing countries would pay a higher price than developing countries. Such policies might succeed, since the price elasticities of demand for most primary commodities are lower in developed than in developing countries, so that the imports of the former group might not fall much on account of the higher prices.

Long-term elasticity of supply

Within a crop year, agricultural production cannot be appreciably varied in response to prices, since it is determined by decisions made in earlier years. The lag between the point of time when these decisions are made, in part in response to price changes, and that when they influence production varies according to the commodity. Insofar as higher prices reach the producer, they will normally induce larger production.

Higher prices for commodities exported by developing countries in competition with the developed ones may not affect producers’ plans in developed countries if the international price remains below domestic support prices in importing countries, but not all commodities are subject to such domestic policies, and an international organization of trade might then tend to lead to greater self-sufficiency in importing countries. The implementation of remunerative prices for such products would therefore require also measures to ensure to developing countries an adequate share of the market growth.

Supply pressures might also arise for commodities of which developing countries are the sole exporters. Even if the remunerative export prices were not permitted to reach the producers in the countries already in the market, they might encourage new countries to enter the market. Thus, the maintenance of an orderly expansion of production for these commodities will have to be a policy objective for all countries co-operating in implementing the remunerative prices, and an effective production policy will require close consultations or perhaps agreed co-ordination of national policies in all the producing countries.

Equity in the income redistribution effects of prices

The implementation of remunerative prices for exports of the developing countries implies the transfer of a portion of the importers’ national income to the exporters. In the case of commodities exported principally from developing to developed countries, for example tropical beverages and fruit, such an income transfer is similar to that taking place under aid programs.

Developed countries have larger shares of world exports than developing countries for many primary commodities, except for tropical foodstuffs, beverages, rubber, some other raw materials of agricultural origin, and a few other products. For these exceptions, adequate measures would be required to ensure that the developing countries’ shares in world exports will not diminish, a result which would not correspond to the objectives of the recommendation.

Efficiency in commodity production

Steadily rising efficiency in commodity production is a requirement for world economic development. Special measures would therefore have to be worked out to counter any tendency for the international organization of commodity trade to lead to a restriction in the shares of the world market held by efficient producers. Likewise, consideration might have to be given to incentive measures to encourage less efficient producers to move into other lines of production.

However, the diversification of production in developing countries to other lines which earn or save foreign exchange is far from easy, and usually involves a foreign exchange cost which can hardly be borne. The operation of remunerative prices might provide in some cases a breathing spell to facilitate a move toward a better utilization of resources. But
not many developing countries could embark on such programs without the assurance of a considerable amount of financial and technical assistance, tailored to specific commodity situations.

In cases where export quota arrangements were used to implement the chosen price levels, such aid might turn out to be a necessary adjunct. In this event, it might be feasible to promote a better utilization of resources among countries through the allocation or reallocation of the quotas, and through reserving an unallocated share of the market for new producers.

RECONCILIATION OF CONFLICTS OF INTERESTS

Most of the necessary measures of price management would require specific undertakings or commitments by countries, and some of them on matters for which there is little or no previous experience in international co-operation. The final instrument for the disposal of supplies by countries, and some of them on matters for which there is little or no previous experience in international commodity trade, is the agreement. As in other forms of agreements, conflicts of interest between exporters and importers, and discrimination. Much would depend on the policies of nonce-operating countries may place on the independent producers and the French franc area, the French franc area, the Commonwealth Sugar Agreement.

A particular case of conflicts of interests is that arising between those countries co-operating in an agreement and those not participating. While measures to minimize the burden that the independent policies of nonco-operating countries may place on co-operating ones can be devised, it should be recognized that most of them would imply some discrimination. Much would depend on the importance of the nonco-operating countries for the particular commodity.

Measures, policies and machinery for implementation

Experience with measures for the implementation of commodity policies has been gained mainly in national programs of price support, and in a few preferential trading areas (e.g., the French franc area, the Commonwealth Sugar Agreement). Some such measures have been incorporated, though with more limited objectives, in several international commodity agreements. There has been some experience with the implementation of price policies in international markets, usually under specific conditions, and this experience can be a base for moving toward the new types of arrangements that will be needed.

There are fundamental differences between action in domestic and in international markets. The most important is that international programs can be formulated and implemented only through contractual undertaking between national governments. International policy measures must therefore not only be technically feasible, but also aim at generally approved objectives and operate through politically acceptable means.

In addition to these problems of a political nature, there would be many technical difficulties, varying from commodity to commodity. These problems would not be insoluble, given that negotiated agreements could be reached about the broad aims of the policies. Some possible types of action for the implementation of minimum real export prices under the international organization of commodity trade are briefly discussed below. All these approaches would no doubt need to be adapted and combined, in the search for acceptable and workable measures for different commodity situations.

MINIMUM PRICES AND EXPORT QUOTAS

A minimum export price arrangement consists in a commitment undertaken by substantially all exporting countries to permit no export of a particular commodity at prices below an agreed minimum. An alternative means of achieving a price objective is a maximum export quota arrangement whereby exporting countries commit themselves to export no more than agreed quantities, which may be altered as market prices change. Some exports may be excluded from the quota or price limitations, e.g., exports to developing countries or to other rapidly expanding markets. While more difficult to enforce than quota agreements, minimum price agreements are easier to negotiate and more flexible since they maintain some aspects of competition in international markets. Both arrangements presuppose a great deal of government control over exports and marketing, including control of foreign exchange returns. The latter aspect is not, however, an obstacle to their adoption, since the exports of developing countries are already largely under government control. Aside from the enforcement of the agreements, the basic problems arise with respect to nonco-operating countries, with maintaining production in line with export possibilities and, under quota arrangements, with the necessary periodic reallocations of quotas among exporters.

An interesting new approach for jute has been proposed by the Working Party on Stabilization set up by the FAO Study Group on Jute, Kenaf and Allied Fibers. Considering that a formal agreement was premature, the Working Party recommended an approach to stabilization through national decisions, coordinated voluntarily through regular informal consultations among government, trade and industry representatives of interested producing and importing countries.

See page 8 for a list of papers on these measures, and particularly items 1, 2, 3 and 11 to 17.
MULTILATERAL CONTRACTS

Objectives similar to those of export quota and minimum price arrangements may be achieved by means of multilateral contracts. These consist of an exchange of commitments between the exporting and the importing countries on prices and quantities traded. An example is the International Wheat Agreement of 1949. Under it the exporters undertook to make available for sale to the importers, on request, specified quantities of the commodity at no more than a maximum price. In turn, importers undertook to purchase, on exporters' request, the same quantities at no less than a minimum price. Multilateral contracts are subject to most of the conditions and limitations of the minimum price and export quota arrangements. Their effects on exporters' earnings will depend, aside from the negotiated price range, on the share of the market they cover. As under quotas and minimum price systems, provision could be made to permit developing countries to purchase supplies at prices lower than those established under the general contract arrangement.

INTERNATIONAL BUFFER STOCKS

An international buffer stock arrangement operates through a body empowered to purchase supplies offered to it at a minimum price (in the present context the price agreed upon as remunerative for developing countries) and to offer for sale the commodities it has in stock at a maximum price. Given sufficient resources — in money and in kind — and a long-term balance between supply and demand, the buffer stock may be able to stabilize the price within the agreed range.

It is difficult, however, to see how buffer stock operations could be used to increase exporters' real earnings without requiring repeated injections of fresh working capital. Nor is it easy to envisage how they could be combined with the implementation of a two-price system which, as was pointed out above, may be required in certain circumstances.

SOME FISCAL TECHNIQUES OF IMPLEMENTATION

Fiscal techniques that implement price and income guarantees through direct income transfers, leaving market prices unaffected except indirectly, have been applied in some domestic agricultural price support programs (e.g., the United Kingdom's system of deficiency payments). Some limited international application has also been made, as for instance in the cotton price support program in the French franc area. Of the many possible ways in which such arrangements can be used internationally, one is a form making it an equivalent of a successfully implemented minimum export price or quota scheme. For such a purpose it is required that: (a) all developed importing countries participate in the arrangement; (b) a variable levy is charged; (c) its revenue is distributed to exporters pro rata with their exports; and (d) the import and consumers' demand are relatively price inelastic. The import levy would be varied so that it equals the difference between an agreed minimum price (i.e., the price objective in an organization of commodity trade) and the market price. Since the demand for the commodity is relatively price inelastic, the consumers' expenditure would be increased, while the quantity demand would decrease proportionately less than the consumers' price increase. Part of the consumers' expenditure would be the revenue from the levy. If this revenue were transferred to the exporting countries pro rata with exports, their export earnings would increase exactly as under a successfully implemented export price or quota arrangement. A textile fund was partially financed with part of the revenue from a tax on all textiles traded in France. Each year guaranteed f.o.b. prices for cotton were fixed by quality and countries of origin within the French franc area. When the market prices fell short of guaranteed prices, a deficiency payment was made from the textile fund. The distribution of benefits among exporters might, however, differ between an import levy scheme and a minimum price system on the one hand, and a quota arrangement on the other. This is because the first two, in contrast with a quota arrangement, allow competition among exporters on grounds other than the price.
ing importing countries would benefit from the lower prices, unless the exporting countries were to apply a minimum export price policy toward them. If, on the other hand, the arrangement is adhered to by most developed importing countries, no exporting country stands to gain by abstaining from joining it (as is the case with, for example, quota and minimum price arrangements). No country can hope to gain a larger share of the market by means of price competition, as the lowering of selling prices simply increases the levy, while nonparticipants are not entitled to share in the levy revenue.

The effects of a specific or ad valorem levy would be different from those of a variable levy. As a means of guaranteeing a remunerative price, they would have to be supplemented by an export quota or a minimum export price arrangement. Otherwise the market price could fall to a point where the price received in the market plus the levy would be less than the guaranteed price (and even equal to the price received without any arrangement).

Distribution of the revenue from the levy pro rata with the participating countries' exports is only one possibility. Several other criteria, to be applied singly or jointly, might also be envisaged. Thus, the revenue could be distributed on the basis of negotiated quotas. It might also be used to accumulate a fund for economic development and diversification, for the benefit of either the participating exporting countries or of developing countries in general. Factors which would have to be taken into account, when deciding on the manner in which the revenue is distributed, would include the possible effects on production in the exporting countries, including the extent to which national production policies might be co-ordinated under the arrangement.

An added element of flexibility is the freedom of choice in importing countries with regard to the manner and extent in which the import levy is passed on to the consumer, and the level of the guaranteed minimum unit return each importing country may wish to ensure to exporting countries.

The discussion so far has been in terms of import levies and of commodities whose demand is relatively inelastic at the consumer and import stage. Thus, it would apply most directly to, say, tropical foodstuffs and beverages. There are commodities, such as some agricultural raw materials, for which the consumers' demand is relatively inelastic, while the import demand is elastic, because an increase in the import price would lead to a substitution of domestic for the imported commodities. An import levy would, in the case of such products, defeat its purposes. This could, however, be avoided by using, instead of import levies, domestic taxes on the commodity and its substitutes, or on the finished products in which they are used, and returning the proceeds to the exporting countries.

References

The main relevant studies prepared by FAO on the subject of international organization of commodity trade are the following.