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MEET WITH MARY PARKER Tuesday, August 24, 1976 2:30 p.m.

# September 2, 1976

ECONOMIC POLICY BOARD EXECUTIVE COMMITTEE

## Proposed Agenda

Monday, September 6, 1976

No Executive Committee Meeting

Tuesday, September 7, 1976 PRINCIPALS ONLY

WWW Tax Reform Bill

2. Economic Outlook

Wednesday, September 8, 1976

No Executive Committee Meeting

Thursday, September 9, 1976 Report of Task Force on Productivity CEA Report of Task Force on Services and the Darman Multilateral Trade Negotiations 3. Report of Task Force on Small Business: SBA University Business Development Centers Friday, September 10, 1976 Council on Wage and Price Stability Meeting, tors and

Treasury

**CEA-Commerce** 

## EYES ONLY

# MINUTES OF THE ECONOMIC POLICY BOARD EXECUTIVE COMMITTEE MEETING September 1, 1976

Attendees: Messrs. Seidman, Lynn, Greenspan, Dixon, Cannon, Malkiel, Gorog, Moskow, Darman, McGurk, Penner, Porter, Perritt, Alexander, McDowell, Chiswick, Spaulding, Metz

## 1. Federal Income Tax Withholding Rates

The Executive Committee discussed the situation with respect to Federal withholding rates in light of the inaction by the Congress which results in higher withholding rates as of September 1. The discussion focused on the utility of sending a letter or statement to the Congress on the issue and who should send the letter.

#### Decision

The Executive Committee requested Treasury to provide a draft letter to the Congress on this issue to Mr. Seidman's office no later than ll:00 a.m. this morning.

## 2. Policies to Deal with Structural and Induced Unemployment

The Executive Committee reviewed a memorandum, prepared by an interagency task force and previously distributed to Executive Committee members, on "Policies to Cope with Structural and Induced Unemployment." The discussion focused on long-term alternatives developed by the task force dealing with youth unemployment and the unemployment compensation system, the President's previous public statements on the issue of a youth minimum wage differential, the current practices of the Department of Labor in granting exceptions from the minimum wage, the nonwage costs to employers of hiring short-term employees, and the provisions in the income transfer programs requiring recipients to be actively looking for work.

EYES ONLY

#### Decisions

The Executive Committee requested the Department of Labor to prepare a summary of research on the search behavior patterns of the long-term unemployed.

The Executive Committee requested the Office of Management and Budget and the Department of Labor to survey what income transfer payment programs require that recipients identify themselves as actively seeking employment in order to qualify for the benefits.

The Executive Committee requested the Council of Economic Advisers to prepare a list of research that is needed in order to better profile the behavior of the long-term unemployed.

The Executive Committee requested the Department of Labor to prepare a list of activities currently underway at the Department of Labor to assist the unemployed with special reference to particular target groups such as veterans and migrant workers.

The Executive Committee requested the Department of Labor to provide a paper on what the Department is doing with respect to exemptions from the minimum wage.

The Executive Committee approved preparing a paper outlining the actions taken on proposals made by the Administration during the past 2 years to address the unemployment problem, potential initiatives to deal with unemployment that could be taken during the next 2 months, and potential initiatives to deal with the problem of unemployment for the State of the Union message.

EYES ONLY RBP

#### THE WHITE HOUSE

#### WASHINGTON

September 1, 1976

# MEMORANDUM FOR THE ECONOMIC POLICY BOARD EXECUTIVE COMMITTEE

FROM:

ROGER B. PORTER REP

SUBJECT:

International Commodity Agreements

A memorandum, prepared by Paul W. MacAvoy and David L. McNicol of the Council of Economic Advisers, on "The Benefits and Costs of Participation in International Commodity Agreements" is attached for your information.

Attachment

# COUNCIL OF ECONOMIC ADVISERS WASHINGTON

ALAN GREENSPAN, CHAIRMAN PAUL W. MACAVOY BURTON G. MALKIEL

August 26, 1976

MEMORANDUM TO: COMMODITY POLICY COORDINATING COMMITTEE

FROM: Paul W. MacAvoy and David L. McNicol Rem

SUBJECT: The Benefits and Costs of Participation in International Commodity Agreements

More than at any other time since World War II, the international forums for discussion of commodity issues now center on the need for buffer stocks, commodity agreements and new funding agencies to finance organizations that come out of such agreements.

The full schedule of international conferences in the coming year creates a momentum for resolution of differences of opinion on whether such agreements and institutions are beneficial. The necessity for each nation to now have a public posture could by itself determine whether buffer stocks are established in certain commodities but not others, and whether a common fund is set up to finance the new buffer stocks. But making decisions because there is a meeting schedule makes little use of a large repository of knowledge gleaned from economic analysis and the history of previous experiments in commodity agreements.

This memorandum seeks to summarize the stock of knowledge on how agreements operate and who receives the benefits or incurs the costs. Some of the findings are obvious - that exceptional attempts to reduce price variation in commodities are merited by the exceptional size of period-to-period changes, and by the great importance of commodity earnings to some of the LDCs. But it is shown that setting up working agreements that would help the LDCs requires institutions and market conditions seldom if ever found in the real world. Moreover, some of the findings are not so obvious - that the agreements if set up under today's imperfect conditions are likely

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to achieve the opposite of the aims sought by producers, that even if they did work then the costs may be so great that the world economy would not benefit, and that even if they did and the costs exceeded the benefits, producing countries would not benefit because all the gains would go to consuming countries.

These findings are presented in summary form as follows:

- 1. The International Debate on Commodity Agreements.
- 2. The Potential Benefits from Commodity Agreements.
- 3. Types of Commodity Agreements.
- 4. Pure Buffer Stock Arrangements in Practice.
- 5. Restrictive Commodity Agreements.
- 6. Conclusion.

They are not meant to be definitive, but rather to summarize the current state of knowledge from industry studies, university research, and the experience of governments. Although tentative and incomplete, the summary does give rise again to the warning that to ignore history is to repeat it.

Attachment

1: The International Debate on Commodity Agreements

Commodity agreements were a relatively minor policy matter in international affairs until recently. This is no longer the case; during the past few years international agreements on commodities have become a major The success of OPEC in tripling the price of issue. oil was the major direct cause of the increased movement towards collective agreements on prices and exports. The large increases in commodity prices during 1973-74, and their subsequent decline, and several other events also played a role in motivating producing countries to organize. While these factors are relevant, they are of a relatively superficial nature. The basic cause of the increased importance of commodity agreements has been the emergence of the Third World nations as an effective bloc. Fifteen years ago, international relations revolved around the East-West confrontation. Commodity problems were then of minor significance to the developed nations. Now that the developing countries have put together an effective forum and organizational device in UNCTAD (the United Nations Conference on Trade and Development), collective commodity policy has become a vital issue involving confrontation between the industrialized nations of the North and the largely underdeveloped nations of the South.

#### The LDC's Initiatives

Commodity prices have been a major concern of the LDC's for decades, and the suggestions currently advanced for ways to stabilize and increase prices are not vastly different from those made fifty years ago. The novel elements in the current situation lie in the emergence of LDC organizations as a significant factor in international politics. The LDC's appearance as a coherent bloc is usually dated to the first UNCTAD, which was held in 1964. In conjunction with UNCTAD, the LDC's formed the Group of 77, which now includes approximately 112 nations. The Group of 77 (G-77) is only an informal association, but its members have shown a remarkable degree of cohesion. Operating within UNCTAD, widely regarded as an organization "...dedicated to exerting pressure on the advanced countries to adapt their policies to the needs of the developing countries," 1/

The G-77 in 1973, issued a statement calling for a "new international economic order." This gave rise to the "Declaration on the Establishment of a New International Order" endorsed by the U.S. Special Session on Raw Materials and Development, held during April and May 1974.2/ This declaration contained three major points. First, it asserted that the LDC's should retain a need for improved terms of trade for raw materials producers; i.e., higher prices for raw materials relative to manufactured goods. Third, the declaration called for increased transfers of resources to the developing nations.

- I/ I. Frank, "The Role of Trade in Development." Helleiner ( , p. 4) reports that some commentators ranked the significance of the first UNCTAD with "...the formation of the first trade union in Nineteenth Century capitalist societies." Whether this is true remains to be seen. However, it may be worth noting that the Wagner Act was passed 89 years after the first labor union was formed in the United States.
- 2/ This declaration and a resoltuion entitled "Programme of Action on the Establishment of a New International Economic Order" were combined in a "Chapter of Economic Rights and Duties of States," which was approved by the General Assembly in December 1974.

These points stated by themselves do not convey much of the sense of the "new international economic order" (NIEO). Spokesmen for the LDC's use the term "economic order" to refer to the condition that 70 percent of the world's population lives in the LDC's while receiving only 30 percent of worl income. A new "order" would, correspondingly, be a condition in which income was more evenly distributed towards the developing countries. These spokesmen also argue that instability in commodity prices, and a consequent instability in their export earnings, are major obstacles to development. The LDC's argue that the terms of trade have shifted against commodities, and in favor of manufacturers, and that this trend can be expected to continue. Both of these points, if correct, imply limitations inherent in present commodities markets as sources of funds for development.

These assertions lead to the conclusion that any international program on commodities should attempt to stabilize commodity prices and shift the terms of trade in favor of commodities; i.e., increase commodity prices relative to the prices of manufactured goods. The first step towards the creation of concrete proposals along these lines was a resolution adopted by the United Nations General Assembly in May 1974. This resolution -- Program of Action on the Establishment of a New International Economic Order -directed the UNCTAD Secretariat to prepare specific measures which over the year became the proposed Integrated Program (IP) for Commodities.3/

The central feature of the IP is a set of agreements covering more than a dozen commodities4/ which create an

4/ The number of commodities, and the list of commodities to be included, changed from time to time.

<sup>3/</sup> See UNCTAD, Trade and Development Board, Committee on Commodities, "An Integrated Programme for Commodities" (TB/B/C.1/193) and "An Integrated Programme for Commodities: Measures for Individual Commodities," (TD/B.C.1/194).

organization of both buyers and sellers intended to take an active role in the market.5/ The organization, toward the International Commodity Organization (ICO) would intervene to produce and sell for buffer stocks of any storable commodities. The ICO would purchase the commodity in periods of slack demand so as to support price. The stocks acquired would be sold off in periods of short supply, thereby holding price down.

Operation of a buffer stock requires that the managers have targets for prices at which to buy and sell. The documents which describe the IP list several possible ways to set these targets, the most controversial of which is "indexation" whereby the prices of commodities in the program would be tied to an appropriate index of the prices of manufactured goods in world trade. Whatever mechanism is adopted, the documents that describe the IP make it clear that a primary objective of the agreements would be to increase commodity prices. 6/

5/ Agreements that create an organization which includes both buyers and sellers but which is not intended to intervene in the market are often called "producer/ consumer forums." A commodity cartel is an organization which is designed to intervene in the market but which does not include consumer representatives.

6/ The drafters of the IP recognize that higher commodity prices would, on balance, work to the disadvantage of the poorest nations. For that reason, the IP suggests provision of "special assistance" to these nations. The IP also calls for improved "compensatory financing;" i.e., more or less automatic grants or loans to cover temporary decreases in export earnings. The IP's commodity agreements also provide for the imposition of export quotas and production controls. These would not be used simply on a standby basis, but would be permanent so that the amount that each producer could produce and export would be negotiated within the ICO. Another important facet of the IP is that the agreements would be related by a "common fund," administered by an organization distinct from the ICO. The common fund would be provided by both buyers and sellers and have two functions. First, it would finance the buffer stocks, in that it would be used to acquire stocks as market conditions require with repayment made when the stock is sold off. Second, the common fund would take the lead in organizing commodity agreements and act as a central management for all of the separate organizations created.

#### The Developed Nations Response

The United States and the other industrialized nations during 1974-75 began to offer "positive responses" to the LDC's initiatives on commodity problems. The United States as unofficial spokesman responded to the LDC's concern with the instability of their export earnings by accepting the proposition that instability in export earnings is a significant impediment to development. Secretary Kissinger argued that this problem was best dealt with by a system of compensatory financing handled through the IMF. Compensatory financing is a means for more or less automatically transferring funds to a country whenever export earnings fall below some pre-specified level.7/ For example, if the

It is worth noting that compensatory financing has a much broader reach than do commodity agreements. Buffer stocks are unsuitable for some commodities and the export earnings of many of the LDC's are influenced by factors other than commodity prices. A system of compensatory finance would be subject to neither of these limitations. established base level of earning for some years is \$100 million, and actual earnings are \$90 million, then -subject of certain limitations -- \$10 million would be transferred to the country. The amount transferred would be repaid in years when export earnings were above trend or, in some cases, converted to a grant. 8/

The second major part of the United States was concerned with the rapidity of the LDC's development. The LDC's argue that trade in commodities has not in the past, and will not in the future, provide a sufficient stimulus for growth. The United States took the position that using commodity agreements was neither a promising nor desirable means of speeding development. Instead, the United States proposed measures which would significantly increase the opportunities available to the LDC's to enter the markets of the industrialized nations by reduction in existing tariff and non-tariff barriers to trade. Thèse barriers fall into three groups. First, most nations employ various non-tariff barriers to trade, especially import and export quotas. Import quotas, of course, directly limit the opportunities of foreign suppliers, as do subsidies to domestic industries. Second, most nations set basic tariffs and then provide exceptions which favor particular trading partners. A third significant feature of tariff structures is "tariff escalation," by which there are increases in the tariff with the degree of processing. For example, the DC's tariffs on copper ore, concentrate and refined copper are low while tariffs on semifabricated copper products are typically in the range of 10-25 percent ad valorium. All three are to be reduced by a program of eliminating such constraints over an extended period of time.

8/ The EEC recently instituted a compensatory financing scheme called STABEX. STABEX covers commodities and countries. The better off of these nations are offered loans, repayable in years, while grants are made to the poor countries included in the scheme.

The response called for adding to sources of capital for development as well. The thrust of U.S. proposals was to interpose multinational organizations between the private capital markets and investment projects in the LDC's which would serve as conduits of funds. From the point of view of the suppliers of funds, the multinational organization would serve to reduce the "political risks" of investment in LDC's -- i.e., the risk of expropriation. From the LDC's point of view, channeling funds through a multinational organization is to reduce the danger of domination by foreign corporations. The United States proposed an expansion of the International Finance Corporation and the creation of a new organization called an International Investment Trust to accomplish this increased intermediation.

The three major elements of the U.S. program -- compensatory financing, trade liberalization and means for increasing the flow of private investment funds to the LDC's -- were not a direct response to the IP. The IP involved direct intervention in commodity markets while the U.S. programs purportedly attacked the reasons for the intervention with other means. However, the United States did not entirely oppose commodity agreements. Instead, the United States adopted the position that commodity agreements have a useful role to play in some cases and, hence, that agreements should be considered on a case-by-case basis.

#### The Issues

The specific positions taken by the LDC's and the DC's on commodities policy to date are somewhat different, if not entirely distinct. These positions and their ambivalence cannot, however, be fully appreciated without reference to some underlying matters on which there is general agreement. Much of the framework is based on the commitment of the DC's to international cooperation on economic development. But the U.S. position was not unanimously accepted by the other DC's. West Germany, Japan and the U.K. directly rejected, with varying degrees of strenuousness, the common fund. The other DC's were ready to accept -- with varying degrees of enthusiam and qualification -- the IP.9/ The United States and the other

9/ The splits in the ranks of the developed nations reflect several considerations. First, the other DC's, especially the European nations, have traditionally taken a much more tolerant view toward cartels than has the United States. Second, Canada and Australia are included to take the position of major exporters, which they are. Third, for a variety of reasons, major concessions on tariffs are more difficult for European nations than for the United States.

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DC's have accepted a responsibility for assisting the development of the LDC's. This responsibility was first formally accepted in a U.N. Resolution adopted in 1947, and has been renewed on many occasions. It is possible to question the extent of the DC's commitment and the effectiveness of existing development assistance programs, but the DC's acceptance of a policy of aiding the LDC's is well established.

This has a significiant implication for the role of trade in commodities as an engine of development. The DC's acceptance of a responsibility for aiding development implicitly contains an admission that trade alone does not necessarily yield "sufficiently rapid" growth. "Sufficiently rapid" growth is more a political than an economic concept, so the rapidity with which the play of market forces produces growth is not really an issue. The point is that there is no existing presumption that the LDC's must rely only on commodity exports for the revenues necessary to promote development.

This does not, however, imply any presumption in favor of direct intervention in the commodity markets. It does not because there are other mechanisms for promoting economic development. Development assistance programs are one way, but it is recognized that they have not produced self-sustaining growth in the LDC's. Current spending on development assistance is insufficient and, more important, the political situation in the DC's is such that development assistance will not increase significantly. Most experts would assert that direct grants as the most likely way does not work well. Thus, the point of departure is: if not increased development assistance, then what?

The LDC's propose direct intervention in the commodity markets. Higher commodity prices would result in a transfer of income from the DC's to the LDC's not provided by development assistance. The IP as a whole is not meant to entirely displace established forms of development assistance, but it is understood by both DC's and LDC's as an alternative.10/

10' For example, a statement issued by the French Government in 1972 contains the following:

... By making consumers in rich countries pay a higher price for these food stuffs and metals than would result from the free play of competition, France is fostering the most acceptable form of aid-payment for human effort rather than charity pure and simple.

(Quoted by Mikdashi (

), p. 59.

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The United States proposed to deal with the problem of instability of export earnings with compensatory financing trade liberalization and increased access to private capital markets. The aim is to significantly increase the opportunities available to the LDC's. But this country has been ambivalent by expressing willingness to consider commodity agreements on a case-by-case basis. This acknowledged that there was no disagreement as to whether some commodity agreements should be created. The disagreement was on the scope of commodity agreements and their objectives. The LDC's would use commodity agreements as a means of raising funds for development. The United States, along with some of the other DC's, take the position that commodity agreements had only a limited role to play and that development problems are best dealt with by other means.

The question, then, is what would be the consequences of support by the United States and other developed nations for a program of commodity agreements? Should the developed countries move towards agreement with those proposing a commond fund? These issues are taken up in the chapters which follow. The discussion will be primarily concerned with examining what commodity agreements could reasonably be expected to accompish, and whether it is appropriate for consuming countries to enter into such agreements. The objective of commodity agreements acceptable to almost everyone is to achieve a measure of "stabilization," or a reduction in period-to-period variations in prices. But the reduction in variations can be realized by cutting off only the price decreases, so that "stabilization" also is a word to be used as a euphemism for higher commodity prices.

This distinction is blurred by the existence of connections between stabilization in each of its senses and economic development. As economic development is the principal concern of the LDC's, it is easy to slip into the assumption that the underlying purpose of commodity agreements is to speed development. The real difficulties begin at this point. First stabilization at higher prices has a very different bearing on development than does stabilization which brings about a reduction in period-toperiod variations in price. Second, it is widely believed that price stabilization is warranted for reasons that have little to do with economic development.

Discussions of commodity agreements often by-pass these distinctions. But agreements or more specifically buffer stocks to carry out agreements are difficult and expensive undertakings. Consequently, whether the benefits of possible agreements exceed their costs is a significant question, so that the potential benefits of price stabilization have to be specified in reasonably concrete terms.

This chapter reviews the various economic benefits that are commonly claimed for price stabilization. The discussion attempts to clarify the possible roles of commodity agreements and, in the course of doing so, to identify the economic issues involved in the decision of various governments to set up or join an international agreement on prices and jobs of some commodity.

## Are Commodity Prices Unstable?

Commodities are to a greater extent than manufacturing or services subject to inherent uncertainties in supply and demand. Weather is the principal source of uncertainty for agricultural commodities, working through the system to decrease or increase supply within a crop year. The supplies of the metals are reasonably stable but there are wide swings in demand as a result of changes in the levels of economy-wide investment and production in the developed countries. Furthermore, short-run supply and demand for most commodities are price inelastic; consequently, small variations in either give rise to large changes in prices and incomes.

Table 2-1 indicates actual variations in the prices of 17 commodities.ll/ For the sake of comparison, similar data are given for the U.S. prices of several manufactured goods. Comparison of the "highs" and "lows" clearly suggests that commodity prices are much less stable than the prices of manufactured goods. This impression is confirmed by the coefficients of variation12 which for the period 1950-1975 were at least twice those of the selected manufactured goods.13 Price swings in cocoa and sugar are exceptionally great from year-to-year, with prices doubling or tripling in a number of successive years.

The large changes in commodity prices produce instability in export earnings, depending on the extent to which the LDC's exports are diversified. The LDC's are often viewed as "one crop" economies; i.e., nations which derive the bulk of their incomes from export of only a few commodities. This

- 11/ There were the commodities specified in the Integrated Program prepared by the UNCTAD Secretariat. See "An Integrated Program for Commodities," United Nations Conference on Trade and Development, Trade and Development Board, TD/B/C. 1/194, October 1975, p. 13.
- 12/ The coefficient of variation is the ratio of the standard deviation of a series to its average. If the values in the series are independently and normally distributed, a value of, for example, 0.1 for the coefficient of variation means that values will be within + 10 percent of the mean value about two-thirds of the time.
- 13 Except for bananas, wheat and rice. The coefficients of variation are somewhat lower if the years 1973-75 are omitted. Nevertheless, the coefficients of variation remain much higher for commodities than for manufactured goods.

# TABLE 2-1

Variation in Commodity Prices,  $\frac{1}{1951-1975}$ 

	High (1975 =	Low = 100)	Coef Vari	ficient of ation2/
bananas cocoa coffee tea wheat rice cotton jute <u>3</u> / sisal <u>4</u> / wool beef <u>5</u> / sugar rubber copper tin iron <u>3</u> /	214.1 190.7 288.2 274.2 125.6 153.5 227.1 166.7 144.5 324.7 129.4 128.7 531.6 285.3 129.0 157.1	$   \begin{array}{r}     100.0 \\     54.9 \\     100.0 \\     100.0 \\     72.9 \\     69.2 \\     100.0 \\     77.4 \\     41.4 \\     100.0 \\     26.8 \\     16.9 \\     100.0 \\     100.0 \\     100.0 \\     67.9 \\     61.0 \\   \end{array} $		.18 .29 .25 .26 .14 .21 .22 .21 .38 .29 .55 .61 .38 .33 .20 .25
Electrical machinery and equipment	127.0	100.0		.06
mechanical power and transmission equipment	103.0	74.3		.10
new cars	153.2	100.0		.136/
women's and girl's apparel	140.8	100.0		.08

# TABLE 2-2 (cont'd)

- 1/ Commodity prices were deflated by the U.N. world price index for all commodities. The prices of electrical machinery and equipment and mechanical power and transmission equipment were deflated by the U.S. wholesale price index of durable manufactures. The prices of new cars and women's and girl's apparel were deflated by the U.S. consumer price index.
- 2/ The coefficient of variation is the ratio of the standard deviation of the series to its average value.
- 3/ Series begins with 1954.
- 4/ Series begins with 1955.
- 5/ 1951-1975.
- 6/ 1953-1975.

Sources: International Bank for Reconstruction and Development ( ), United Nations ( ) and ( ). U.S. Department of Labor, Bureau of Labor Statistics ( ), ( ).

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view is substantially correct, since more than half of the LDC's derive at least 50 percent of their export earnings from less than three commodities (as shown in Table 2-2). Only 18 of the 114 LDC's obtain less than 10 percent of their export earnings from three commodities.

Moreover, LDC export earnings have been relatively unstable. Table 2-3 presents some summary data on the instability of export earnings of DC's and LDC's. The "index of instability" used is a measure of departures from trend. Assuming that the deviations from trend have a normal (i.e., bell shaped) distribution, a value of (say) 10 for the index of instability means that export earnings will be within + 10 percent of trend approximately two-thirds of the time.14/ The mean value of the index of instability for LDC's was about 30 percent above that for the DC's during the period 1946-1958. The index of instability fell for both DC's and LDC's in the period 1954-1966, but the index for the LDC's was still more than twice that for the DC's.15/

15/ For discussions of the causes of instability in export earnings, see A. MacBean, Export Instability and Economic Development (Harvard University Press, 1966), Chapter 2, and M. Michaely, Concentration in Interational Trade (North Holland Publishing Co., 1962).

<sup>14/</sup> For a definition of this index, see G. Erb and S. Scheavo-Campo, "Economic Instability, Level of Development and Economic Size of Less Developed Countries," Bulletin of the Oxford University Institute of Economics and Statistics, Vol. 31 (1969), p. 266. The verbal interpretation of the index given above is only very loosely correct, and should be used only to gain an impression of what the numbers in Table 2-3 mean.

# TABLE 2-2

# Percent of LDC's Export Earnings Derived from Commodities

	Largest Commodity Export		Largest Commodity Exports		All Commodity Exports	
	Number	Cumulative	Number	Cumulative	Number	Cumulative
90-100	1	1	6	<sup>'</sup> 6	12	12
80-90	4	5	5	11	12	24
70-80	4	9	6	17	15	39
60-70	6	15	11	28	13	52
50-60	1.2	27	15	43	12	64
40-50	7	34	10	53	9	73
30-40	12	46	11	64	9	82
20-30	18	64	11	75	9	91
10-20	15	79	7	82	5	96
<10	35	114	32	114	18	114

# TABLE 2-3

Comparison of the Instability of Exports of Merchandise Plus Services of Selected DC's and LDC's

Index of Instability Characteristics1/	1946-1958 DC's LDC's	1954-1 DC's	.968 LDC's
mean	17.6 23.0	6.2	13.4
median	18.1 18.3	6.3	12.8
median of upper half	23.3 32.0	7.8	17.8
median of upper quartile	26.4 41.3	8.9	21.5
standard deviation	7.1 12.8	2.2	6.2
coefficient of variation (percent)	40.3 55.7	35.5	46.3

1/ See text for an explanation of this index.

Source: Erb and Schiavo-Campo, op. cit., p. 267.

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The significance of instability in export earnings depends on the size of the export sector relative to the economy as a whole. Table 2-4 provides some data which bears on this. For 25 of these nations, export earnings were at least 40 percent of Gross Domestic Product (GDP) in 1972. Most of the nations in this group have classic "few crop" economies - not only are their export earnings derived from only a few commodities, but also the export sector is the bulk of the economy. This is not, however, typical of LDC's as a group. Export earnings were less than 40 percent of GDP for 87 of the LDC's and less than 20 percent for 60 of the LDC's.

The overall description of the role of commodities provided here is not controversial. Although there is some dispute over whether the export earnings of the LDC's are markedly less stable than those of the DC's, this is not a crucial point, '/ and the instability of commodity prices is well established. The important disagreements are over the significance of the fact of instability in commodity prices and export earnings.

## The Benefits from Reducing Commodity Price Fluctuations

It is generally agreed that to the extent that instability is an obstacle to development, international cooperation to stabilize the LDC's export earnings is warranted. This would not justify measures designed to increase commodity prices. It might, however, justify such measures as the creation of buffer stocks in some commodities to even out price earnings.17

- 16/ It is not because any given degree of instability in export earnings may have very different consequences for an underdeveloped nation than for an industrialized nation.
- Because of perishability, high storage costs and heterogenous grades, buffer stocks are feasible for only a few commodities. Compensatory financing can have a much broader coverage and strikes directly at the problem. Furthermore, compensatory financing avoids the storage and interest costs associated with buffer stocks.

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Distribution of LDC's Export Earnings as a Percent of GDP  $1972\frac{1}{}$ 

Export Earnings as a Percent of GNP	Number of LDC's	Cumulation	
> 100	3	3	
80-100	4	7	
60-80	10	17	
40-60	8	25	
20-40	27	52	
10-20	35	87	
<10	25	112	

 $\frac{1}{2}$  In several cases, it was necessary to use the average value of exports for 1971-1972.

Sources: International Bank for Reconstruction and Development ( ). Europa Publishing Co. ( ; and International Monetary Fund ( ).

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There are several ways in which instability in export earnings can adversely effect development.18' Most of the LDC's have greater-than-usual demands for infrastructure investment within their governments such as roads, hospitals, and schools. In many of the LDC's the government assumes a substantial direct responsibility for agricultural and industrial investment. Furthermore, development programs generate a demand for foreign manufactures -- fertilizers, cement, steel, machinery, etc. -- which must be paid for with foreign currencies largely acquired by the export of commodities. Governments can tap the flow of foreign exchange earnings in a variety of ways, but whatever particular method is used, the foreign exchange available to the LDC's governments might, in fact, depend on commodity prices. Variations in funds available because of commodity price variations can require costly delays in projects, and add uncertainty as to the completion date of related projects.

Nevertheless, the available evidence does not support the proposition that instability is a major obstacle to development. In an extensive statistical analysis of a sample of LDC's,19 MacBean found a negative correlation between growth in GDP and instability in export earnings. However, the correlations did not differ significantly from zero, which is to say that this test indicates the absence of any marked effect of instability in export earnings on GDP. Furthermore, on each of several tests, the relationship between investment and instability proved to be not only statistically insignificant but positive; i.e., higher levels of investment proved to be associated with less stable export earnings. As investment is the means by which development occurs, the findings are contrary to the proposition that instability in export earnings is a major obstacle to development.20

- 18' For a summary of these arguments, see A. MacBean, op. cit. Ch. 1.
- 19 MacBean, op. cit., ch. 4. MacBean also buttressed his statistical work with several case studies.
- 20' Several reasons why this is so can be found. For example, much of the funding for development programs comes from external sources rather than export earnings. A second reason appeared in Table 2-4, in particular, in over half of the LDC's, export earnings are less than 20 percent or less of gross domestic product.

A second justification for policies to reduce instability in commodity prices is based on the assertion that the boombust cycle assumed to be characteristic of the commodity markets adversely affects the entire range of investments in the LDC's. The boom-bust cycle is regarded as a major problem which buffer stocks, or other price stabilization measures, should be used to solve. In periods when demands for commodities are high and are rising, producers expand production and capacity, until the increased supply and/or a decline in demand subsequently drive prices back down to a very low level. The investments made to expand capacity then prove to be unprofitable, supply is cut back, marginal producers leave the market and the cycle begins again. Tn the downturn, investments in related markets and in infrastructure also prove to be less profitable than forecast, so that macroeconomic effects are realized by the boom-bust activity in commodities.

At first glance, the effect of a buffer stock on the boom-bust cycle is straightforward. The buffer stock would buy in periods of "excess" supply, thereby maintaining price and producers' revenues. The stocks acquired would be sold off in periods of tight supply. The result would be stable prices and revenues, or, in short, a cure for the boom-bust cycle.

This could be a correct depiction of buffer operations as far as it goes, but it does not go very far. The missing element is a clear appreciation of the costs of the boom-bust cycle, which are those of the "excess" investment. That is unprofitable investments are made and resources are, for at least a time, unutilized. With buffer stock operations the economy-wide costs of excess investment are simply transferred to the buffer stock organization. There is very probably no gain even to suppliers.<sup>21</sup>/

<sup>21/</sup> Suppliers would contribute all, or at least much, of the costs of the buffer stock. That is, suppliers must pay out to the buffer stock when it is buying. Suppliers, then, would simply get back in larger revenues what they pay out to the buffer stock. This would not occur once the buffer stock has accumulated a sufficiently large pool of funds. These funds, however, would still carry an implicit interest cost equal to the return that could be obtained in the best alternative employment of them.

Price stabilization, then, is not a cure for the economic ills in the boom-bust cycle. If a buffer stock is to have a substantial effect on the cycle it must, by stabilizing prices, reduce or prevent "excess" investment. It may seem reasonable to suppose that stable prices would promote a stable pattern of investment, but this is not obvious. To establish the point something must be said about rhe relationship between price instability and the investment decision.

A relatively simple possibility lies in what can be called the "myopia theory" of the boom-bust cycle. The myopia theory asserts that competitive firms place undue weight on near-term conditions. In particular, during boom periods competitive firms falsely believe that high prices will persist. There is consequently overinvestment which drives prices down and so forces some suppliers from the market. A buffer stock would cure the myopia by holding price closer to its long-run equilibrium level, announcing a target price related to the long-run equilibrium price and otherwise providing a sound basis for forecasting. But it makes the point that price gives suppliers only "yes/no" information on investment. Price does not indicate how much capacity should be added by existing firms. Consequently, if each producer and potential entrant responds in the expected way, the result can be "overinvestment." Markets solve this problem by trial and error; i.e., by squeezing out, via price decreases, excess capacity. Given the process just sketched, even a large well managed buffer stock would not cure the problem unless the buffer manager knew exactly the long-run equilibrium price and refused to buy and sell in the face of small diviations from that price. Price, if it is to play its role as a signaling device, must be allowed to rise by enough to attract additional supply as that becomes necessary. A rush to invest, as described in the example, would then occur. A buffer stock could, in fact, exacerbate the problem if producers had reason to believe that excess production would be absorbed by the fuffer stock. In all, the relationship between price instability and the timing of investments is not well understood but, given the present state of knowledge, it cannot be said that the boom-bust cycle provides a clear rationale for buffer stocks.

# The Benefits from Higher Commodity Prices

Commodity agreements designed to raise prices could in theory produce increased export earnings, thereby providing a supplement or a substitute for existing forms of development assistance. For example, a statement issued by the French Government in 1972 contains the following... "by making consumers in rich countries pay a higher price for these food stuffs and metals than would result from the free play of competition, France is fostering the most acceptable form of aid-payment for human effort rather than charity pure and simple." (Quoted by Z. Mikdashi, "Collusion Could Work," Foreign Policy, Vol. 14 (1974), p. 59). If so, the obvious question is: Are commodity agreements a good means of making substantial income transfers to LDC's?

The economics of the response are relatively simple and very widely accepted. Higher prices are an inefficient way of making transfers, in the sense that sellers gain less than buyers lose. This means first that there is a net decline in the value of goods and services produced, and second, that a transfer of any given magnitude can be made more cheaply directly than indirectly via higher prices.

These principles were at least broadly honored by the development assistance programs of the 1950's and 1960's. During this period international efforts were based on various forms of direct transfers -- grants, loans on very easy terms, training programs, etc. However, there is now a consensus that such development assistance efforts have not been successful and cannot be expected to increase in the future.22/ If it is widely believed that development assistance will not expand, and free trade and access to capital markets is going to maintain the LDC's dependence on commodities, commodity agreements designed to increase prices could be the only politically acceptable means of speeding development.

<sup>22</sup>/ In his speech to the U.N. General Assembly in September 1975, Secretary of State Issinger stated: "We have learned from experience that the methods of development assistance of the 1950's and 1960's are no longer adequate." A major contention offered in support of this position is that, over time, the terms of trade invariably shift against commodities 23/ Whether this has, in fact, been so depends on the time period examined. For example, the terms of trade shifted against commodities between 1937 and 1960.24/ But to date most politically uncommitted analysts have concluded that there is no persistent tendency for the terms of trade to shift against commodities.

A second major contention is that the way in which commodity agreements are received has a bearing on international stability and hence, on national security. A concerted political move on commodity agreements in UNCTAD could polarize the LDC's. These considerations lie behind the position that holds that by making concessions on commodity agreements the industrialized nations would gain some political benefits and avoid some political costs. If this is granted, the problem posed by commodity agreements intended to raise prices is one of trading economic costs against political benefits.

Putting the issue in this way is to assume that the IP's commodity agreements would be successful in increasing prices. This depends on whether the producers have the market and political power necessary to organize and enforce an agreement. If not, then the consumers have to have the power to do so for the producers. The development natons do at least have a semblance of the requisite power and their active participation

23/ The a priori case made for this proposition is very weak. For example, it is argued that the manufacturing industries are less competitive than the commodity industries and that, consequently the gains to technological change will not be passed along in lower prices for manufactured goods. Granting for the sake of the argument that the manufacturing industries are less competitive than the commodity industries, it is simply not true that a monopolistic industry has no incentive to pass along cost reductions due to technological change. The computer industry is a classic counter-example.

24/ See V. L. Sorenson, International Trade Policy: Agriculture and Development (Michigan State University, 1975), pp. 155-57. is vital for that reason. This point, while seldom stated explicitly, is well understood. Consequently, if the developed nations accept a program of commodity agreements they create an expectation that the desired results will be achieved and implicitly commit themselves to achieving certain results via particular means. This is because the worst of results would be to have ineffective commodity agreements -- the developed nations would gain the blame as consumers, and thereby accrue all of the political disadvantages, while at the same time incurring significant economic costs from wide swings in poorly controlled prices. It is likely that the failure of any program of commodity agreements would entail large political costs and no economic benefits.

To summarize, the discussion has offered three conclusions. First, instability in commodity prices and export earnings is not a major obstacle to development and hence does not provide a solid rationale for commodity agreements. Second, commodity agreements could have an effect on development to the extent that they increase commodity prices but they are an inefficient and potentially ineffective way of completing income transfers. Thus, the third crucial question for both the LDC's and the DC's is whether a system of commodity agreements designed to increase prices would be successful. This issue is dealt with at length in Chapter 4.

#### Commodity Agreements as the Means to Improve Markets

Commodity agreements need not be designed to increase prices.<sup>25</sup>/ In particular, a pure buffer stock would function only to reduce period-to-period variations in price without increasing its average level. While such arrangements would not have a significant effect on development, they might nevertheless have a useful role to play 26/as a means of "improving the market."

- 25/ Whether, as a practical matter, a buffer stock organization would invariably attempt to increase price is an important question. This is discussed in Chapter 3.
- 26/ It should be noted that this corresponds at least roughly to the U.S. position at UNCTAD IV on the Integrated Program. The United States argued that commodity agreements are not a useful way of speeding development and proposed alternative measures. However, the United States stated that it was willing to consider commodity agreements, including buffer stocks, on a case-by-case basis.

This is the most complex aspect of the effects from commodity agreements. It is widely believed that "excessive" instability in commodity prices is undesirable, but apart from possible effects on development which have been discounted by McBean's findings there is little known basis for this position. Given that buffer stocks are costly, measuring the benefits of reduced instability cannot be avoided.27 Therefore the question is whether price instability is simply a nuisance or a source of significant costs to a country's economy or to the world economy.

The Costs of Risk: The presence of substantially greater price instability could in the eyes of some investors make commodity markets "excessively" risky. Again, it is not clear exactly what this means, but one possibility is that period-to-period variations in prices increase the costs of operation by more than the outlays required to stabilize (e.g. by operating a buffer stock). As the degree of price instability increases, both buyers and sellers may be led to employ more working capital, and hold larger inventories, both of which are costly. Instability increases costs by requiring changes in production rates, by creating problems of scheduling the work force, by complicating purchasing decisions, etc. Most important, instability in prices typically implies instability in sales revenues and as returns become more variable the cost of capital to suppliers increases. A buffer stock could, by stabilizing prices, lead to a reduction in these costs and would be warranted if its costs were less than the cost savings to buyers and sellers.

27/ It is important to distinguish buffer stocks, and other arrangements designed to stabilize prices, from contingency stocks. A contingency stock is held against specific possibilities -- war, famine, etc. The benefit of a contingency stock is its insurance value. As a buffer stock would periodically be at a zero level, it would not provide reliable insurance. Contingency stocks have been proposed for foods, especially major grains. While these proposals are potentially significant, they have not played a central role in international discussions of commodity problems. See R. Weckstein, "Do We Need a World Food Reserve? A Counter Proposal," unpublished paper, no date. The possibility that there would be a net reduction in expenditures in an economy from such a stabilization scheme us unlikely. Any reductions in buyers and sellers inventories would be matched by increased inventories held by the buffer stock.2% Furthermore, in most of the commodities industries, working capital requirements are relatively low and the agricultural industries are typically not capital intensive. These considerations suggest that cost savings would be minor. The costs of buffer stocks are not typically minor; as is discussed in Chapter 5, these stocks are often expensive propositions.29/ While these comments are far from conclusive, they suggest that buffer stocks cannot be justified as a device for reducing costs.

# Reducing Price Instability to Benefit Both Producers and Consumers

The most important contention is that price stability benefits both buyers and sellers. This sounds like rhetoric but, surprisingly, there is a sense in which the assertion is correct. The circumstances are those in which the price changes and in which the gains that buyers receive from purchases are both positive.30/ Table 2-5 presents a hypothetical example which focuses first on the price change effects on suppliers revenues. Assuming that the level of demand at any price is constant and that supply periodically shifts from "low" to "average" to "high,"31/revenues are

- 28 But this implies that private inventory cost would be assumed by the Government, which may be one reason why stabilization measures are favored.
- 29/ It is also worth noting that existing futures markets provide a way for buyers and sellers to escape some forms of uncertainty. For example, a supplier can obtain a known, certain return in the future by selling forward. A buyer can, similarly, eliminate uncertainty over price and availability by buying a futures contract.
- 30/ The argument developed here follows B. Massell, "Price Stabilization and Welfare," <u>Quarterly Journal of Economics</u>, Vol. 83 (1969), pp. 285-298, which provides references to the earlier literature. See also S. Turnovsky, "The Distribution of the Welfare Gains from Price Stabilization: The Case of Multiplicative Disturbances," <u>International</u> Economic Review, Vol. 17 (1976), pp. 133-48.
- <sup>31</sup>/ Supply is assumed to be perfectly inelastic and the elasticity of demand is assumed to be -0.4. These assumptions do not affect the main point of the example.

first relatively high and subsequently relatively low. Stabilizing price in these circumstances increases suppliers' revenue over the three periods. This is not a result that depends on particular numerical examples but instead occurs whenever the demand is constant at each price, demand increases as price decreases and supply varies.32/ But of course buyers might lose by this price stabilization. While this would appear to be the case in example in Table 2-5, based on expenditures, care must be taken in measuring consumers' loss. Total expenditure is not the

32/ The underlying economic proposition is that when price is already low, relatively large decreases in price are necessary to persuade the market to accept an increase in supply.

The additional assumption required to make the example show gains for buyers is that demand increases at a decreasing rate whenever prices fall. This can be illustrated as follows:



With demand D and price variations  $P_1$ , from long-run price P occurring in the market, a stabilization scheme affects producers and consumers differently. Producers lose  $S_1$  from reducing  $P_1$  to P; they gain  $S_3 + C_4$  but from raising  $P_2$  to P. Consumers gain  $S_1 + S_2$  from the price reduction but lose  $S_3$  from the price increase. Thus, the gains are:

$$\left\{ \begin{array}{c} \frac{\text{Producers}}{s_3 + s_4 - s_1} \right\} \qquad \left\{ \begin{array}{c} \frac{\text{Consumers}}{s_1 + s_2 - s_3} \right\} \\ \end{array} \right\}$$

or the net gains are  $S_2 + S_4$ . But whether one or the other particular group gains depends on the shape of the demand functions.
## TABLE 2-5

# Example of the Effects of Price Stabilization on Suppliers' Revenue When Demand is Constant and Supply Varies

## (a) Without price stabilization

	Production and supply	Price (\$)	Revenue (\$)
Low	80	1.50	120
Average	100	1.00	100
High	120	0.50	60

## (b) With price stabilization

	Production	Buffer stock sales (+) and purchases (-)	Price	Revenue
Low	80	+20	1.00	100
Average	100	0	1.00	100
High	120	-20	1.00	100

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1. 1

relevant measure, since buyers' "willingness to pay" for the total amount purchased typically exceeds expenditure.33' The difference between total willingness to pay and expenditure is referred to as consumers' surplus, and it is this surplus which is the measurable gain or loss from price stabilization.

Recognition of this leads to an interesting accounting of consumers gains in the example outline in Table 2-5. Here consumers do gain less when price is low than they lose when price is high, because it is assumed that willingness to pay decreases as consumption increases. For this reason, the net effect on buyers from stabilization is positive, because the gains from preventing increases exceeds the loss of surplus from preventing decreases in prices. It follows that there is a net gain to buyers and sellers as a group.

33/ To see why this is so, consider a case in which a buyer is offered only a small quantity of the commodity. This would be devoted to "critical needs," so the buyer would be willing to pay a correspondingly high price. An increment in supply would be devoted to "less critical needs," so the price that the buyer would be willing to pay would decrease. And so on as additional quantities are offered. In the absence of price discrimination, buyers make all of their purchases at the going price, so the market does not extract from buyers their total willingness to pay. The example considered could be very broadly typical of agriculture. But in the metals, supply is relatively stable while demand varies substantially. In such cases price stabilization benefits buyers, but suppliers may gain or lose, so that there could be net gains or losses to buyers and sellers as a group. More important, the question is what happens when both supply and demand vary. The answer, discussed in more detail in Chapter 5, depends on the relative variability of supply and demand. Suppliers may gain while buyers lose, buyers may gain while suppliers lose, or both buyers and suppliers may gain. 34/

Could not as much be achieved without commodity agreements? Most institutional arrangements do not offer to benefit all participants in international markets. Existing futures markets, however, cannot be so easily dismissed. The effect of the futures markets on price stability is controversial. Economists have usually argued that speculation is stabilizing.35/ If so, the

34/ It should be noted that, in terms of the argument sketched here, compensatory financing is not a substitute for buffer stocks. Compensatory financing simply serves to stabilize export earnings by direct transfers. This does not effect the gains to suppliers and/or buyers of stabilizing particular commodity prices.

35/ Profitable speculation will generally be stabilizing, since, for example, a profit is made on material purchased "now" only if it is resold at a higher price. This argument is presented in M. Friedman, Essays in Positive Economics (Chicago, 1953), p. 175. For counter arguments see W. Baumol, "Spec lation, Profitability and Stability," Review of Economics and Statistics, Vol. 39 (1957), pp. 263-271); and H. Johnson, "Destabilizing Speculation: A General Equilibrium Approach," Journal of Political Economics, Vol. 84 (1976), pp. 109-122. existence of a futures market in a commodity reduces the need for a commodities agreement that uses a buffer stock to stabilize prices. Others argue that amateur speculators --who are eventually driven from the market by losses -- are frequently a destabilizing influence. In this event, the existence of a futures market strengthens the case for a buffer stock.

There is a more subtle point that puts this issue in a different perspective. A supplier or buyer can "buy insurance" against price variations on a futures market. For example, a supplier can sell future production "now" at a guaranteed price. But the entire crop would not be sold forward, because if production is less than expected the seller would have to buy back his own contracts. Also, if the price in the future turns out to be unexpectedly high, the producer would prefer not to have sold forward. A buffer stock avoids these difficulties and so may be a form of insurance 36/

The conclusion is that a buffer stock which stabilized prices could be an acceptable way of providing some benefits from price stabilization to suppliers, buyers, or both 37/ This is a strictly limited conclusion. It leaves open Issues concerned with the practicalities of buffer stock management and the question of whether the benefits of buffer stocks would exceed their costs.

36/ See B. Massell, "Some Welfare Implications of International Price Stabilization," Journal of Political Economy, Vol. 68 (1970), pp. 404-417.

37/ If this is so, it might be asked why buyers and sellers do not organize a buffer stock. It may simply be that the costs of a buffer stock exceed the benefits, but there are two other possibilities. First, it is costly to organize the many participants in a market. A second difficulty is what is known as the "free rider problem." If a buffer stock were organized, its benefit would to to all suppliers or buyers whether or not they contributed. 3: Types of Commodity Agreements

Whether a commodity agreement results in reduced price fluctuations or higher prices depends in part on the kind of organization put together to carry out the agreement. Almost any organization, as such, would provide suppliers with a means to cooperate in raising prices. Furthermore, price, and perhaps supply, could become matters for negotiation between buyers and sellers in some types of organizations. To the extent that suppliers are dominant, the organization created could act as a cartel; to the extent that buyers' interests are felt, the organization might not attempt to raise price above the competitive level.

These comments do not exhaust what can be said about the institutions used to carry out commodity agreements. "Commodity agreement" is a generic term that produces a variety of organizations. Different emphases on specific provisions result in agencies which serve different objectives and produce different results. The question, then, is: given the objective -higher price or reduced period-to-period variation in price -- what mechanisms are usually or generally required?

The first two sections of this chapter take up, in order, pure buffer stocks and commodity cartels. The discussion of these institutions provides the basis for evaluating the mixed type of commodity agreements that develop in practice.

#### Pure Buffer Stocks

A "pure" buffer stock organization acts as a balance wheel by acquiring an inventory of the commodity during periods of slack demand, thereby supporting the commodity's price. The stock would be sold off during periods of tight demand, which would limit the increase in price. Table 3-1 and 3-2 provide estimates of such effects from buffer stocks in copper and tin would have had if they had been operating. In both cases, the estimates were computed using an econometrical model of the industry.

#### Table 3-1

# Actual IME Copper Price and Estimated Copper Price - With a Buffer Stock, 1955-1973 (1967 Cents Per Pound)

- 10	Actual Price	Estimated Price With a Buffer Stock	Actual Price Minus Estimated Price	
	-			
1955	53.4	52.1	0.7	
1956	47 0 .	45.7	1.3	
1957	38.1	43.5	-5.4	
1958	26.7	43.3	-16.6	
1959	,31.7	43.0 .	· ·11.3	
1960	32:9	42.6	-9.7	
1961	30.7	40.3	-9.6	
1962	31.4	39.7	-8.3	
1963	31.4	38.9	-7.5	
1964	46.4	42.7	3.7	
1965	61.3	43.6	. 17.7	
1966	70.5	48.9	21.6	
1967	51.2	43.2	8.0	
1968	:54.0	45.6	8.4	
1969	61.6	47.0	14.6	
1970	57.1	48.0	9.1	
1971	42.4	42.1	0.3	
1972	40.1	43.0	-2.9	
1073	63 3	. 48.5 .	14.8	
3. J S & S & S & S & S & S & S & S & S & S				

1/ These estimates assume that the initial stock is zero and that purchases and sales are made so as to maintain price within +7.5 percent of the five-year lagged moving average price.

Source: Office of Raw Materials and Oceans Policy ( ), p. 74.

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## Table 3-2

# Actual LME Tin Price and Estimated Tin Price With a Buffer Stock, 1955-1973 (1963 Pounds Sterling Per Metric Ton)

		Tatima had	A street
		Estimated	Actual
	Actual.	Price With a	Price Minus
1	price	Buffer Stock	Estimated Price
-			
1956	733.7	810.6	-76.9
1957	651.5	794.9	-143.4
1958	654.1	775.2	-121.1
1959	745.6	820.4	-74.8
1960	766.6	800.1	-33.5
1961	897.9	878.4	19.5
1962	929.9	892.7	37.2
1963	978.2	916.4	61,8
1964	1,407.6	945.9	461.7
1965	1,624.6	973.7	650.9
1966	1,413.3	964.4	448.9
1967	1,246.6	1,030.6	216.0
1968	1,085.5	1,039.7	45.8
1969	1,102.0	1,088.0	14.0
1970	1,111.7	1,119.2	-7.5
1971 :	1,004.4	1,060.1	-55.7
1972	972.0	1,054.4	-82.4
1973	1,147.4	1,177.5	-30.1

These estimates assume that the initial stock is 327.5 thousand metric tons and that purchases and sales are made so as to maintain price within  $\pm$  10 percent of the five year moving average price.

Source: U.S. Treasury, Office of Raw Materials and Oceans Policy (), p. 65. The pattern of prices is much the same in the two cases. The buffer stock would have supported price through the early 1960's and would have, by selling, avoided the high prices that prevailed during 1965-1970 and, for copper, again in 1973.

These examples results are almost certainly characteristic of price dampening results from buffer organizations in other commodities. There is no real doubt that a properly managed buffer stock could provide a high degree of price stability. This does not mean that a buffer stock would necessarily stabilize price, however. Operation of a buffer stock is not nearly so simple in practice as it is in broad concept.

The operations of a buffer stock require the existence of an organized market in the commodity.<sup>38</sup>/ Wheat and other agricultural commodities trade on the Chicago Mercantile Exchange (as well as other exchanges) and several metals trade on the London Metal Exchange and the New York Commodity Exchange have this prerequisite 39/ Given the price for the commodity established by supply and demand in this market <u>AO</u>/ the buffer organization would trade on one or more of the exchanges in an

- 38/ Centrally held stocks are clearly possible in other cases. However, in these cases price is, by assumption, already under some form of control, so there is no need to create a buffer stock to stabilize price.
- 39/ Other commodities -- bauxite, for example -- are sold at prices announced by producers or at prices negotiated by buyers and sellers. Table 5- (p. ) lists organized markets in several major commodities.
- 40/ The details vary from one exchange to another. Typically, orders to buy or sell are placed through authorized floor dealers. The dealers gather in the pit (really a platform) in which the commodity is traded and shout out the price at which they are currently willing to buy or sell. If demand exceeds supply, it quickly becomes apparent that bids must be increased. Conversely, if supply exceeds demands, bids and closing prices fall.

attempt to stabilize price. This requires rules that describe when to buy and when to sell. As a practical matter, these rules would be specified in terms of a target price and a price band;  $4\sqrt{1}$  i.e., the managers would be instructed to trade so as to keep price within (say) + 10 percent of the target price. Target price should be set equal to long-run marginal and average costs of production. If the target price were set below these long-run costs,  $4\sqrt{2}$  production would exceed demand and when the buffer stock reached the limit of its ability to purchase "excess supply" price would fall 43/

These prescriptions suggest that mistakes in setting the target price will be revealed by the market. Unfortunately, this is not a solution to the problem of setting the target price. First, mistakes even if corrected quickly are costly. Second and most important if too high a price is set and a large stock accumulated, the solvency of the buffer stock may be threatened.

- 4) Alternatively, a quantity rule, such as the ratio of stocks to consumption, could be used. The ICO would be instructed to purchase when the stock to consumption ratio rose some fraction above a specified level and to sell when the ratio was some fraction below target. However, the connection between the stock to consumption ratio is complicated and adequate data on stocks is often unavailable. For these reasons, a quantity rule would typically not be feasible.
- 42/ Long-run average cost includes the opportuntiy cost of capital; i.e., the return that the capital employed could obtain it is most profitable alternative use. Long-run average cost also included any "rents" obtained by superior factors of production. For example, even if a superior block of land is owned outright, a rent equal to what it could command on the market would be attributed to it.

43/ This statement assumes that production controls are not imposed. Production controls and export quotas are discussed below. A significant part of any buffer stock would very probably be financed by loans, and the loans would be secured by the material in the stock.44/ If the stock becomes too large, lenders would not only stop extending credit but might also force sale of the stock to cut their losses. The result would be the bankruptcy of the buffer stock and, perhaps, "panic selling;" which would be destabilizing. 45/

Various means for setting target price and some of the difficulties involved are discussed below. It is sufficient for the moment to note that the target price for a pure buffer stock is difficult to set. But the problem is complicated by the necessity to keep price within a band around the target price. This rule will work when structural, technological and cost factors change slowly. In that case, price will fluctuate about a constant value or a stable trend. In agricultural markets, for example, large price changes are usually due to year-to-year variations in supply. The buffer stock would (basically) buy in good crop years and sell in bad crop years.

Problems arise, however, when there are permanent shifts in the determinants of supply or demand. Suppose, for example, that technological improvement of a substitute product results in a large decrease in demand. Then price would initially fall below long-run average and marginal cost and suppliers would incur losses on a long-term basis.

45/ The existence of a large stock tends to depress the market, and hence creates the need for continued purchases. The process is in this respect self-feeding.

<sup>44/</sup> This means all of the stock. For example, a bank or group of banks might loan the buffer stock only two-thirds of the value of the stock, but the loan would be secured by all of the material purchased.

Marginal suppliers might be forced out immediately but otherwise there would be no new entry and existing capacity would not be replaced. This would reduce supply and as supply falls price would rise toward long-run average and marginal costs. Eventually, a new equilibrium is established with price equal to long-run cost but with consumption and supply reduced in accord with the lower level of demand.

If the decline in demand were temporary, the buffer stock should purchase so as to support price at the preset lower bound. However, given that the decline in demand is permanent, an attempt to support the price will slow down the adjustment process and lead to an ever increasing stock. Consequently, a buffer stock should not attempt to support price in the face of permanent decrease in demand.

Technological change that reduces cost presents a similar problem. Once the new technology has been introduced on a significant scale, price will tend to fall toward the average cost with the new technology which is, by hypothesis, less than the marginal costs with the old. Suppliers who use the old technology will lose money, and will continue to lose money until they leave the market or adopt the new technology. The buffer stock should again, not attempt to support the price.

A large increase in operating costs while demand remains constant provides a third and probably more commonly encountered problem. In this case, price will initially rise, but by less than the amount of the increase in cost <u>46</u>/ so that all firms experience losses. The adjustment to long-run equilibrium then proceeds as in the first example. In this situation, it would clearly be

<sup>46</sup>/ In the short run, suppliers will push production to the point where marginal (or incremental) cost is equal to price. If the price paid for inputs increases, then so does marginal cost. This implies that at the initial price, firms will be willing to supply less than before cost increased. Price consequently rises. But the increase in price leads to a decrease in the quantity purchased. Suppliers are then left with excess capacity which is, loosely speaking, why the initial price increase is less than the increase in average cost. wrong to attempt to hold prices down. It is more likely that the managers of a buffer stock would be under pressure to recognize the full impact of the cost increase in the target price. However, doing so would eliminate the incentive to reduce capacity. The correct response for the buffer stock is to let price rise as it will -- i.e., do nothing.

The common element of these three examples is the need for a reduction in capacity. If the buffer manager defended the price bounds vigorously he would thwart the required market changes, while accumulating a large stock that would be costly to dispose of. His decisions clearly would not result in stabilization in the sense of reduced fluctuations in price. In fact the manager of a pure buffer stock should act only to filter out the effects of transitory events and not to block permanent changes.

To return to the real world, however, it is questionable whether an international organization could resist pressures to preserve the status quo. Although this question cannot be answered conclusively, it is possible to list conditions which must be satisfied if a buffer stock is to be limited to the task of smoothing temporary changes in price. First, the rules of any international commodity organization (ICO) must recognize the possiblity of permanent changes in the market and indicate that these are not to be resisted. Second, the ICO must have a strong capability for analyzing the market and must be under professional, non-politicized management. These conditions bear scant resemblance to the guidelines and approach of those now proposing buffer stocks in the Integrated Program.

#### Commodity Cartels

At the other extreme from a pure buffer stock is a commodity cartel. The membership of a cartel is usually limited to suppliers  $\frac{47}{}$  and its central objective is to increase its members' profits by increasing prices above

47/ The term "commodity agreement" is usually reserved for organizations which include both buyers and sellers.

the competitive level or above long-run marginal and average costs. But there is nothing that precludes incorporating a buffer stock in a cartel agreement. If this were done, the target price would be the cartel price. Like a pure buffer stock, the cartel buffer stock would buy and sell to absorb the effects of short-run changes in demand an unanticipated changes in supply. The buffer stock would, in effect, be assigned responsibility for inventory management. This would not be a vital role and commodity cartels do not require a buffer stock.

An effective cartel must, first of all, have a means for establishing price 48/ This is almost always accomplished by negotiation among members 49/ Second, the cartel must have a mechanism for limiting output to the amount consistent with the cartel price. Output can be limited by means of quotas or each member can be assigned geographic markets. Third, a successful cartel must have a way of policing the agreement. In the short-run, the problem is to detect and deter price cutting (or "chiseling"). The long-run problems are to control capacity expansion by cartel members and to prevent or limit entry.

OPEC provides a dramatic example of a successful cartel. But OPEC is, historically an unparalleled case, and far too much has been read into its success. Maintaining an effective commodity cartel is very difficult, and the prospects for doing so are discussed in Chapter 4.

48/ Or, in the unlikely event that sales are made through an open market, a means of agreeing on the quantity offered.

49/ Which is a source of conflict. Low cost sellers will favor a low price while high cost sellers will favor a higher price. Conflicting opinions on the appropriate level of price can also arise out of differing perceptions of basic facts. The real world enters here as well as in the case of pure buffer stocks. In most cases, it appears that cartel behavior is governed by opposing forces. On the one hand, suppliers can increase their profit, at least for a time, by forming an organization to increase price. On the other hand, a cartel price above long-run costs creates an incentive for "cheating" and attracts entry. There are some means for dealing with these problems 50' but they are not invariably effective. Consequently, it is impossible to predict on theoretical basis whether a cartel organization will raise prices.

#### Restrictive Commodity Agreements

The commodity agreements usually proposed are neither pure buffer stocks nor cartels, but have elements of both. It is useful to label such arrangements "restrictive commodity agreements." Specifically, a restrictive commodity agreement differs from a pure buffer stock in that it involves the use of controls on production and It differs from a commodity cartel in that exports. buyers are represented in the organization, at least obstensibly, the manger will not attempt to limit entry. The question is to what extent will a restrictive commodity agreement approximate the behavior of a cartel. The operation of pricing agreements provide one indication of the answer. There are three mechanisms which might be used to establish a target price. First, the agreement creating the organization could specify that target price is to equal long-run average and marginal costs, and delegate the task of estimating long-run costs to the staff.

50' For example, some past agreements have attempted to contain the problem of entry by establishing a "free zone;" i.e., geographic markets in which the market is left to determine price and supply. The total output of new entrants and "overshipments" of members of the agreement are sold in the free zone. The result is a free zone price that is below the agreement's price. This creates a strong incentive for purchasers in the free zone to resell in the "regulated zone," and a variety of imaginative procedures can be devised for doing so.

Given the difficulty of making precise and defensible estimates of cost, and the importance of target prices to both buyers and sellers, it is unlikely that this approach would be workable. The second possibility is for the members of the ICO to agree on an "automatic" rule such as those favored by the LDC's which use (1) "indexation;" or (2) a moving average of past prices 51/ Indexation would not likely produce a systematic relationship between the target price and either the cartel price or the competitive price. Furthermore, buffer stock operations conducted in terms of such an indexed target price would not be related to cycles in the market and hence, would not stabilize commodity prices. While the use of a moving average rule may appear to be more acceptable on these grounds, it could produce a target price that is above the long-run competitive equilibrium. This will occur if the stocks acquired in defending the lower bound on prices are insufficient to defend the upper bound -- which will almost certainly be the case if export controls, rather than purchases, are used to support price in slack periods.

The final alternative is periodic renegotiation of the target price. The rules of the organization could state that the transactions in the market are to be triggered by departures of prices from long-run costs. However, given the difficulties in measurement, the appreciation of this policy would not be very restrictive. Target prices would basically be determined by the bargaining power and positions of buyers and sellers. The buyers' interests would lead them to seek target prices equal to long-run marginal and average costs, while sellers might well be led by considerations of short-run gain to seek a price above long-run costs.

51/ See U.N. Conference on Trade and Development, Trade and Development Board, "An Integrated Program on Commodities," TB/B/C. 1/194 (Oct. 1975), pp. 6-8. None of the three available alternative would be guaranteed to yield a target price near long-run marginal and average costs52/ While indexation would probably be most unpredictable, whatever approach is chosen would ultimately produce results heavily dependent on tactical decisions of the buffer stock managers and on the moderation of profit-making proclivities of the suppliers. These provide at best weak insurance, against the ever present opportunity of commodity agreements to provide a means for setting prices above the levels of long-run costs.

Prices above the long-run cost level cannot be sustained without limitations on supply, however. Restrictive commodity agreements provide the necessary means in export quotas and production controls. These are blatantly restrictive53/ even though this fact is obscured by the existence of other rationale for "supply management."

One such rationale is that production controls and export quotas should be available as "standby measures" to be used when there is a catastrophic decline in demand. The thought is that quotas or production controls would avoid large expenditures required to support the lower bound on price. While this is correct, the argument does not stand up to close inspection. If quotas are used so that suppliers are required to accumulated stocks, the international agreement merely provides a mechanism for coordinating nationally held stocks and for shifting costs from the buffer stock to suppliers.54/ If production controls are used so that suppliers do not accumulate stocks

52/ The more opposing price, which would maximize buyers' gains, would be lower. C.f. Paul W. MacAvoy, Price Formation in Natural Gas Fields, (York, 1962).

- 53/ An agreement by domestic producers to limit production would be a per se violation of Section 1 of the Shérman Act.
- 54/ And if buyers contribute to the buffer stock, the suppliers must lose by this shift.

then working and buffer stock inventories will be reduced at other times and it is very unlikely that the buffer stock will be able to defend the upper bound on price.

A second rationale for direct controls turns on the length of time required to adjust supply. The variable or operating costs of producing some agricultural commodities are very low relative to long-run average and marginal costs. For example, once cocoa trees are planted they will continue to produce for many years with little or no expenditures required, so that operating costs for cocoa production are well below long-run average costs. Furthermore, these commodities are often grown by small landowners who cannot readily shift to other crops or occupations. In these circumstances, price can remain very low for several years before producers leave the market 55/ Thus, production controls are necessary to speed up a painful adjustment process to long-term equilibrium when demands have fallen to a permanently lower level. This argument might have considerable force if there were no alternative to production controls, but in fact the straightforward cure is to allocate investment funds to diversification -- i.e., a changeover to new crops and/or the creation of new industries. Furthermore, the use of export quotas or production controls tends to lock an industry into an uneconomical pattern. Production by suppliers with high marginal costs should be cut back more than producers with low marginal costs, and low cost suppliers allowed to enter56/ However, high cost producers would oppose these rules and it is unlikely that they could be followed by an international organization. If they are not, the result is excessively high cost and lower profit for the suppliers as a group.

- 55/ See J. Rowe, Primary Commodities in International Trade (Cambridge University Press, 1965), pp. 189-193.
- 56/ For a case in which this issue appears, see I. Kravis, International Commodity Agreements to Promote Aid and Efficiency: The Case of Coffee, Canadian Journal of Economics and Political Science, Vol. 1 (1968), pp. 295-317.

The conclusion is that export quotas and production controls have no role to play if the objective of a buffer stock is to reduce period-to-period variations in price, but they clearly do have a role if the objective is a higher price. A price in excess of long-run marginal and average costs cannot be sustained unless supply is limited, and it is for such supply limitation that export quotas and production controls are necessary.

If price is increased above the competitive level, the organization has to find ways of allocating shares and preventing price chiseling to increase shares when supply exceeds demands. Many organizations are now trying to convince buyers to provide these ways. In particular, buyers would agree not to pay less than the agreed price and not to accept any shipments but those certified by the organization as within the suppliers quota. While this would be superior to the means available to a cartel, it would be at best a shaky system because it is in the buyers economic if not political self-interest to encourage price cutting.

Commodity agreements typically do not contain any direct mechanisms or administrative means of limiting entry. The absence of a control mechanism on entry in some cases means that prices could not be permanently increased above the competitive level. However, when technical or cost barriers are substantial, prices could be increased substantially as well without provoking entry. Also, it might be possible to contain the problem of entry by establishing "free zones" -- i.e., markets in which prices are not controlled -- or where consumer discipline is maintained by refusing to give new suppliers a quota. However, this would be a type of economic warefare and the victims could be the least developed of the LDC's, so that the political disadvantages are potentially very substantial. In all, the lack of instruments here should result in long-run determination of price levels set above costs, particularly in agricultural commodities where entry is relatively easy. There also have to be organizational means for completing the financing of buffer stocks. If target prices are set above long-term costs, export quotas and production controls are not used and buyers pay the entire cost of the buffer stock, suppliers will produce more than the market will absorb at the target price and the "excess production" will be taken off the market by the buffer

stock at the buyers expense. Essentially the same result can occur under less extreme assumptions. Suppose, for example, that on average target prices are set at two and a half times costs and that buyers pay one-half the cost of the buffer stock. Suppliers could, then, earn a profit equal to half of their cost by selling excess production to the buffer stock. Of course, it would be necessary to limit this process, and the way of doing so is by imposing limits on the financing of the stock by buyers. This is to require a formula for participation closely geared to the motives and operations of price controls. Such a formula is not easy to come by.

In summary, it appears that the mechanisms for restrictive commodity agreements have much in common with those of commodity cartels. The commodity agreements require a combination of: (1) pricing mechanisms that are likely to yield a price above the competitive level; (2) export quotas and production controls for limiting output; and (3) means for policing the agreement. The fact that buyers would be represented presumably would limit the ability of a restrictive agreement to increase price. Nevertheless, the mechanisms, the problems and prospects for success of a restrictive commodity agreement are basically those of a cartel rather than those of a pure buffer stock.

#### Conclusion

There are several institutional requirements that must be satisfied for a pure buffer stock to operate in order to stabilize prices: (1) there has to be an open market; (2) the stock should be self-liquidating in the sense that purchases and sales balance over the cycle in demand; (3) target prices must be set by a trigger mechanism to approximate long-run average and marginal costs; (4) the stock managers must recognize basic changes in the supply or demand market and not act to thwart them; and (5) export quotas and production controls should not be used, even on a standby basis. If these conditions are satisfied, the buffer stock would be limited to the task of reducing period-to-period variations in price. A restrictive commodity agreement designed to increase price would not require a buffer stock but rather would require: (1) a mechanism for setting prices on a day-to-day basis; (2) a means such as export quotas and/or production controls for limiting supply; and (3) a means for policing the agreement. The first two of these requirements are easily met. The crucial problem would be that of policing the agreement and, especially, of limiting entry.

These guidelines provide working definitions of a pure buffer stock and a restrictive commodity agreement. As such, they cast in terms of specific mechanisms the preceding chapter's distinction between alternative roles of commodity agreements -- economic development vs. reduction in price fluctuations. A pure buffer stock is designed only to reduce period-toperiod variations in price. Restrictive provisions -especially production controls and export quotas -- are not required for price stabilization in this sense. They serve, instead, as a means of increasing prices and thereby transferring income from the industrialized nations to the LDC's. 4: Pure Buffer Stock Arrangements in Practice

Given that wide fluctuations in prices are undesirable, there accordingly would seem to be little objection in principle to an organization that is put into place for the purpose of reducing period-to-period variations in price. If a pure buffer stock were limited to this task, the major question is whether the benefits of reducing variations in price exceed the costs of the operation in practice. The ambiguous policy that the United States has adopted adds spice to this issue. The United States has agreed to consider commodity agreements, including buffer stocks on a case-by-case basis, which raises the question: In what cases is a buffer stock economically warranted?

The first two sections of this chapter take up succesively the costs and the benefits of pure buffer stocks. The final section presents a tentative identification of the commodities which are the most promising candidates for buffer stock organizations.

#### The Costs of Buffer Stocks

Discussions of commodity agreements often assume that the capital costs of establishing a buffer stock would be modest. This probably reflects the fact that the tin buffer stock, only buffer stock to operate systematically throughout the post-war years, is small and hence not costly in dollar terms. However, large buffer stock will, in many cases, be required to obtain a significant degree of price stability and will require billions of dollars in initial capital outlays in a number of cases.

The maximum size of the copper stock required for the example operations in Table 3-1 was 4.8 million tons, which would have had an acquisition cost of roughly \$5 billion. The maximum size of the tin stock (cf. Table 3-2) was estimated to be 384,000 metric tons with an acquisition cost of about \$800 million. 57/ Table 4-1

57/ U.S. Treasury, Office of Raw Materials and Oceans Policy, op. cit., p. 74 and p. 66.

Estimated Maximum Capital Costs $\frac{1}{}$  for Buffer Stocks in Commodities

		Maximum Stock		Assi	umptions	
	Cost	as a Percent of	Elasticity	Elasticity	Base	
	(million \$)	Base Production	of Supply	of Demand	Production	Price
Cocoa	220 6	77	34	- 32	3 488 000 1 +	\$821 43/1 +
Coffee	401.0	. 11.3	.33	27	66.319.000 bags	\$53.50/bag
Tea	77.2	9.0	. 31	16	1.244.000 m.t.	\$690.18/m.t.
Wool	2,115.1	14.0	.25	24	9,742,000 m.t.	\$1,550.00/m.t.
Cotton	714.8	12.0	.71	27	11, 324, 000 m.t.	\$526.10/m.t.
Wheat	2,822.6	12.0	. 71	20	321.3 million m.t.	\$73.21/m.t.
Rice	1,232.9	6.0	.20	06	187.2 million m.t.	\$109.77/m.t.
Sugar	725.3	4.0	.22	16	71.4 million m.t.	\$253.96/m.t.
Jute	2/	2/	.30	50	.722 million m.t.	\$326.3/m.t.
Sisal	7.2	4.0	.15	30	.385 million m.t.	\$466.00/m.t.
Rubber 4/	123.1	8.5	.15	40	2,628.4 million k.g.	\$0.55/k.g.
Copper 3/	5,000					
Tin 3/	800				5 	
Iron Ore 4	1/ 262.7	8.5	.15	10	254.6 million m.t.	12.14/m.t.
Bauxite $\frac{1}{4}$	7 76.2	8.0	.20	02	68.90 million m.t.	13.82/m.t.

Sources: See Appendix 5-1.

- 1/ The estimate is of the maximum addition to the stock in a single year under certain assumptions (cf. Appendix 5-1) The estimated values would increase if the assumed conditions persisted for more than one year.
- A 10% increase in supply would not threaten a price floor 10% below the base price.
- Computed for a 10% variation in demand rather than supply.
- $\frac{2}{3}/{4}$ U.S. Department of the Treasury, Office of Raw Materials and Oceans Policy, op. cit.

Table 4-2

Correlations Between Deflated Commodity Prices

				•	· .			· .								
	bananas	cocoa	coffee	tea	wheat	rice	cotton	jute	sisal	loou t	beef	sugar	rubber	copper	tìn	iron .
bananas cocoa coffee tea wheat rice cotton jute sisal wool beef sugar rubber copper tin iron	1 24 .61 .79 57 53 02 .07 41 .11 75 50 .52 12 51	1 .08 28 .41 .54 .30 38 .15 .06 .05 .33 .09 0 .06 10	1 .43 32 39 .38 22 44 .19 28 24 .39 0 39 0 39	1 39 52 .19 02 22 .16 85 47 .82 44 55 .86	1 .82 .32 39 .79 .53 .23 .62 07 .08 .13 42	1 .03 18 .47 .20 .17 .41 29 .32 .38 59	1 56 .13 .58 0 .06 .45 28 27 31	1 41 34 0 54 10 .47 .23 23	1 .40 .13 .82 02 21 1? 32	1 12 .15 .37 16 34	1 .36 71 .23 .40 72	1 28 25 0 33	1 41 47 75	1.50	1	

1. 73

presents rough estimates for the maximum capital costs of buffer stocks in 13 other commodities,58/ranging from a low of about \$77 million (tea) to a high of over \$2.8 billion (wheat). The sume of the estimated initial outlays is \$14.7 billion or, excluding copper, \$9.7 billion.

This is a high estimate, and the question is whether by pooling buffer stock outlays or by using other rules of operation the amount of capital required could be reduced. If the commodity markets move together as in 1973-74, then pooling would not reduce capital costs. However, if the markets move independently, then the stocks for some commodities would be "full" while those for others were "empty" so that pooling would reduce capital costs. Table 4-2 shows the simple correlation between the deflated prices of the 16 commodities that appeared in Table 2-2.59/ It is remarkable that 64 out of the 120 correlations are either negative or zero. To this extent, commodity prices do not tend to move together so that pooling would have substantial advantages.<u>60</u>/

Capital costs, although relevant, are not the only costs of a buffer stock operation. There are, in fact, four components to the costs of a buffer stock, the interest cost on the funds employed, the costs of storage, the administrative expenses of the buffer stock organization, and the "trading cost;" (the difference between the revenue obtained when a stock is sold and acquisition cost of the stock minus any brokerage fees). The total costs of the

- 58/ It was assumed in making these estimates that supply or demand varies by ± 10 percent, and that the buffer stock trades to keep price within ± 10 percent of a target level. Other values that entered the computation appear in the right hand columns of the table. The formula employed is explained in Appendix 5-1.
- 59/ The same series were used in computing the correlation coefficients as were used to compute the coefficients of variation given in Table 2-2.
- 60 / Assume that the market is "slack" in one period, "average" in another and "tight" in the third, but not in the same order in each of the commodities. Given the values of Table 4-1, the mean capital requirements for buffer stocks in all 15 commodities would be \$4.9 billion or, if copper is excluded, \$3.2 billion.

copper buffer stock for the scenario shown in Table 3-1 have been estimated to be \$508 million, an average of about \$27 million per year. The costs of the tin stock are much less, roughly \$1 million per year.61/

Comparable estimates for other commodities are not available. It is possible, however, to form an impression of how large these costs are likely to be. The administrative costs of a buffer stock operation would be small in relation to other cost components and to net benefits,  $\frac{62}{}$ and it can be assumed that the average trading costs of a well managed pure buffer stock would be zero. $\frac{63}{}$  Warehousing costs would also be small for the metals and most agricultural commodities. However, storage costs would be appreciable for cocca, coffee, sugar and tea -- perhaps as much as 1-2 percent of price.

This leaves capital costs, about which more can be said. The buffer stock would not be at its maximum value at all times. Suppose that there were a regular and recurring cycle of good, average and bad years. The stock would be built up during the course of the good year, held during the average year and sold during the bad year. The average value of the stock would then be two-thirds of the maximum value. If good and bad years alternated, the average value of the stock would be half the maximum value.

 $\underline{61}$  <u>Ibid.</u>, p. 74 and p. 66. These are present values in 1967 dollars.

- $\frac{62}{2}$  It is unlikely that more than 10 professional would be required even for a large stock.
- 6.3∕ The underlying assumption is that the stock would buy as much at a price below the target price as it later sells at a price correspondingly above the target price. In the economic studies referred to earlier, trading for tin and copper buffer stocks were small for most rules. See U.S. Department of the Treasury, Office of Raw Materials and Oceans Policy, <u>op</u>. <u>cit</u>., pp 65-75.

The commodity markets do not follow either of these simple patterns. However, the upper and lower price bounds for a price buffer stock would be chosen so that purchases and sales balance out. Given that changes in demand and supply occur fairly often, this suggests that the buffer stock would be buying, holding and selling with roughly equal frequency. If so, the average value of the buffer stock would be between one-half to two-thirds of the maximum value. If the relevant interest rate for a pure buffer stock is in the range 9-15 percent, 64 then given that the average amount held is one-half to two-thirds of the maximum, the annual average interest cost would be 6-10 percent of the maximum value of the buffer stock  $\frac{65}{7}$ Thus, the total costs including interest, administrative and storage costs, would be 7-12 percent of the value of the stock at its peak.

# Benefits of a Pure Buffer Stock 66/

The benefits that might flow from a reduction in period-to-period variations in prices are purported to accrue as gains to both buyers and sellers. If supply varies while demand is constant, stabilization results in consumers net gaining on the dampening and producers net gaining on the support of prices (that is, gaining more than the other side loses, as shown in Chapter 2).

- <sup>65</sup>/ The cost estimates for the copper and tin buffer stocks were much less than this because only a 2 percent discount rate was assumed.
- 66/ This section presents numerical examples of the effects of price stabilization on suppliers' profit and consumers surplus. The computations employ results obtained by Massel. The formulas used, along with the assumptions made, are presented in Appendix 4-2.

<sup>64/</sup> The relevant measure is not the buffer stocks borrowing rate but the opportunity cost of funds available to the buffer stock.

If demand varies while supply is constant, consumers are net gainers and suppliers are net losers from price stabilization, but there are net gains to buyers and sellers as a group from price stabilization.

In the general case where both supply and demand vary, both buyers and sellers may be net gainers. However, suppliers may be net gainers while consumers are net losers or vice versa. The nature of the outcome, in this case, depends on the magnitudes of the elasticities of supply and demand and the extent of variation in supply and demand. The only general statement that can be made is that there are gains from price stabilization to buyers and sellers as a group.

Table 4-3 presents illustrative values of the expected average annual gains to price stabilization for each of the three cases identified. The assumptions used in making these computations are stated in Appendix 4-2. Briefly, the computations rest on measured values of elasticities and hypothetical variations in supply and demand.

The potential gains from price stabilization for wool, wheat, rice, sugar and copper are quite large. However, little reliance can be placed on these values. The computation serves only to make the point that the gains from price stabilization could be significant.

#### Guidelines on the Suitability of Buffer Stocks

The estimates that have been presented can at least be used to illustrate what a cost-benefit analysis of buffer stock would compare in magnitudes. Table 4-4 shows the gains to stabilization when only supply varies or, for the metals and rubber, when only demand varies (Table 4-3) and when costs of running the buffer are 5 percent and 15 percent of the maximum capital costs of the inventory (Table 4-1). Here estimated annual net benefits exceed 15 percent of maximum capital costs for rice, sugar, sisal, iron, and bauxite, so that gains could be positive from stocks in these commodities. Net benefits exceed 5 percent of maximum capital costs for four other commodities -- cocoa, coffee, tea, rubber, and bauxite. However, the overall impression conveyed by Table 4-4 is that the costs of a buffer stock for the commodities considered are roughly approximate to the magnitude of benefits. Hence, the rough estimates made do not argue clearly either for or against buffer stocks. They suggest that the net benefits (or costs) are likely to be small in most cases.

Table 4-3

# Expected Annual Gains From Price Stabilization (\$ million)

· ·		Supply varies	De	mand varies	6	Both vary			
	producers	consumers	total	producers	consumers	total	producers	consumers	total
Cocoa	21.4	-7.0	14.5	-7.5	21.9	14.5	14.0	14.9	28.9
Coffee	28.6	-8.9	19.7	-10.8	30.6	19,7	17.7	21.7	39.4
Tea	8.2	-2.1	6.1	-4.0	10,1	6:1	4.1	8.0	12.2
Wool	153.0	-50.3	102.7	-52.4	155.1	102.7	100.6	104.8	205.4
Cotton	25.8	-5.6	20.3	-14.7	34.9	20.3	11.2	29.4	40.5
Wheat	105.1	-18.9	86.2	-67.2	153.4	86.2	37.9	134.5	172.3
Rice	324.2	-60.8	263.4	-202.7	466.1	263.4	121.6	405.3	526.9
Sugar	226.0	-67.0	159.1	-92.1	251.1	159.1	133.9	184.2	318.1
Bananas	1.8	-0,5	1.3	-0.7	2.0	1.3	1.1	1.4	2.5
Jute	1.6	-0.6	1.0	-0.4	1.4	1.0	. 1. 2	0.7	2.0
Sisal	2.2	-0.9	1.3	-0.4	1.8	1.3	1.8	0.9	2.7
Beef	0.8	-0,3	0.5	-0.2	0.7	0.5	0.6	0.4	1.0
Rubber	15.2	-6.4	8.3	-2.4	11.2	8.8	12.8	4.8	17.6
Copper	114.0	-31.9	82.1	-50.2	132.3	82.1	63.9	100.4	164.2
Tin	27.3	-8.4	18.9	-10.5	29.4	18.9	16.8	21.0	37.8
Iron	57.7	-16.5	41.2	-24.7	65.9	41.2	33.0	49.5	82.4
Bauxite	15.8	-1.3	14.5	-13.2	27.7	14.5	2.6	26.3	29.0

Source: See Appendix 5-2.

# Table 4-4

# Comparison of Net Benefits to Price Stabilization When Only Supply Varies With 5% and 15% of Estimates Maximum Capital Cost (\$ million)

	Eenefits to Net		II Fraction of Max	kimum Capital Cost	•
	Sellers	Benefits	5%	1 5%	
Cocoa	21.4	14.5	5.5	16.5	
Coffee	28.6	19.7	10.0	30.0	
Tea	8.2	6.1	3.8	11.4	
- Wool	153.0	102.7	105.8	317.4	
Cotton	25.8	20.3	35.7	107.2	
Wheat	105.1	86.2	141.1	423.3	
Rice	324.2	263.4	61.6	184.8	
Sugar	226.0	159.1	36.3	108.9	
Jute	1.6	1.0		/	
Sisal	2.2	1.3	.4	1.2	
Rubber	-2.4	8.8	6.2	18.6	
Copper	-50.2	82.1	250	750	
Tin	-10.5	18.9	40	120	
Iron	-24.7	• 41.2	13.1	39.3	
Bauxite	-13.2	14.5	3.8	11.4	

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-55-

Some of the ambiguity suggested by Table 4-4 can be resolved by applying reasonable negative tests of the suitability of buffer stocks. First, a buffer stock makes no sense for commodities in which there is no open This test rules out buffer stocks in iron, market. bananas, bauxite and rice -- at least until markets in these commodities are organized. A second simple test is provided by the costs of storage. Significantly greater storage costs almost certainly rule out buffer stocks in meats and bananas, and perhaps for coffee, cocoa, and tea.67/ A third negative test is the origin of the commodity in world trade. Referring to Table 5-2, DC's are the principal exporters of wheat, rice, wool and iron. As the concern is primarily with the prices of commodities exported by LDC's, there does not seem to be much point in creating buffer stocks in these commodities 68/ Furthermore, supply probably varies substantially more than demand for wheat, rice and wool, and in this case, buyers are net losers from price stabilization.

A final -- and probably more controversial -- negative test portains to the structural characteristics of the industry. The danger that a buffer stock will be used as a restrictive agreement is acute to the extent that concentration and barriers to entry are high. Production of cocoa and coffee is highly concentrated, but entry into these industries is relatively easy. The copper and tin industries are both highly concentrated and relatively difficult to enter and are, for those reasons, probably not suitable candidates for buffer stocks.

The survivors of these negative tests are: cotton, sugar, jute, sisal, and rubber. To proceed with the analysis of these commodities, it is necessary to employ positive indicators of benefits.

67/ Stocks in these latter commodities must be "rolled over" -i.e., the commodity must be sold after being held for a certain amount of time. This fact limits the amount of time that a stock can be held, and, hence, the amount of material that can be held off the market.

68/ Contingency stocks for wheat and rice, however, are another matter.

One test of the benefits to buffer stocks is the degree of price instability. Looking back at Table 2-2, it can be seen that the prices of the surviving commodities ranked from least to most stable are: sugar, sisal, rubber, cotton, and jute. The price of sugar is by far the most unstable of this group, with a coefficient of variation more than half again as large as that of sisal. But to an important extent the presence of a futures market in sugar as well as in rubber and cotton provides a significant opportunity for both buyers and sellers to hedge the risks from price variation. There are no futures markets in sisal and jute, so that these two appear to be the prime candidates for buffer stocks69/

The net benefits shown in Table 4-3 give a different impression, however, since these benefits of buffer stocks for sisal and jute are very small. The benefits are much larger for sugar, cotton and rubber. These commodities are relatively easy to store and the industries are relatively unconcentrated and easy to enter. It would seem, then, buffer stocks would be most promising for sugar, cotton and rubber, but only if futures markets are not already providing the benefits from price stability.

The LDC's provide nearly all of world exports of jute, sisal and rubber and about 60 percent and 70 percent respectively of cotton and sugar exports. It is clear that variations in supply for jute, sisal, cotton and sugar is the major source of instability in their prices.<sup>70</sup>/

- 69/ Cf. appendix 4-3 for a tabulation of organized markets in major commodities.
- 70/ The coefficients of variation of production for jute, sisal, and cotton respectively are: 0.21, 0.05, 0.09. This compares with a coefficient of variation of wheat production of 0.15. In all of these cases, the changes in production may be responses to changes in demand. However, for agricultural commodities this is generally not the case. Instead, major year-to-year changes in production are due to exogenous factors -- esp. the weather.

The LDC's would then be net gainers from stabilization in these cases. This is not so clearly true of rubber. While rubber is an agricultural commodity, it is generally thought that, in terms of changes in supply and demand variations, rubber is similar to the metals.71/ This is to say that changes in demand are the principal source of instability in rubber prices. If so, buyers rather than sellers would be the gainers from stabilization of the price of rubber.

## Concluding Comments

Buffer stocks are often regarded as good as such. This chapter suggests that in reality the value of the results is much more diverse. The costs of a buffer stock, and the difficulties of buffer stock management vary from one commodity to the next and there is no general presumption that the benefits exceed the costs. Moreover, it now appears that buffer stocks have a useful role to play in only a few cases. The value of buffer stocks is further limited by their nature. A pure buffer stock would only serve to reduce period-toperiod fluctuations in prices, suppliers' incomes and buyers expenditures. While this case may be very useful, it is unreasonable to suppose that the use of pure buffer stocks would work sweeping changes in world commodity trade.

71/ Cf. appendix 4-3 for a tabulation of organized markets in major commodities.

#### Appendix 4-1

## Estimation of the Maximum Capital Requirements of Buffer Stocks

This Appendix derives the formula used to compute the estimates, presented in Table 4-1 of the maximum capital requirements of buffer stocks. Denote by  $\overline{P}$  the target price and by  $\overline{P''}$  and  $\overline{P'}$  respectively the upper and lower prices that are to be defended. Let f be the fraction by which price is permitted to very from  $\overline{P}$ . The bounds on price can then be stated as:

$$P'' = (1 + f) \overline{P},$$
 (4-3a)  
 $P' = (1 - f) \overline{P}.$  (4-3b)

Assume that supply and demand are, respectively, described by:

$$q^{s} = \propto (1 \pm d) + \beta P \qquad (4-4)$$

$$q^{d} = a (1 \pm h) + bP \qquad (4-5)$$

where d and h are "shift variables." A positive value for d shifts supply to the right and a negative value shifts supply to the left. Similarly, a positive value for h shifts the demand curve up and a negative value shifts the demand curve down. It is assumed that supply and demand are defined on an annual basis. $\frac{72}{}$ 

One of the cases contained in this model is described in Figure 4-1. It is assumed in this figure that h = 0; i.e., that demand is stable. Supply is assumed to be  $S_0$  under average conditions (d = 0) and to shift between  $S_1$  and  $S_2$  with variations in, for example, the weather. When supply is at  $S_2$ , the buffer stock must purchase a quantity  $S^*$  to maintain price at its lower bound P'.

72/ Given this representation, the buffer stock must be understood as defending an annual average price, so price can, for brief periods, be allowed to go below the lower limit or rise above the upper limit. Assume, that because of shifts in supply and/or demand, that the price floor P' = (1 - f) P must be defended. The total amount demanded by users plus purchases by the buffer stock (S\*) must equal supply for P' to be maintained. Therefore:

$$a(1-h) + b(1-f)\overline{P} + S^{*'} = A(1+d) + \beta(1-f)\overline{P}.$$
 (4-6a)

Expanding this expression:

$$\left\{a+b\overline{P}\right\}$$
 -ah-bf $\overline{P}$  + S\* =  $\left\{a+\beta \overline{P}\right\}$  +  $\left\{d-\beta\right\}$  f $\overline{P}$ . (4-6b)

Each of the bracketed terms is equal to q, so:

$$S^* = (a h + J, d) + f (b - \not\models) \overrightarrow{P}$$
 (4-7)

Dividing by q guives:

$$s^* = \frac{(a h + 2 d)}{\bar{q}} + (\gamma_d - \gamma_s)f , \qquad (4-8)$$

where  $s^* \equiv S^*/\bar{q}$  is the maximum annual increment to the buffer stock as a fraction of base production, and  $\eta_d$  and  $\eta_s$  are, respectively, the elasticities of demand and supply. The value of the stock is P. S\*.

Equation 4-8 was used to compute the values shown in Table 4-1. For the agricultural commodities (except rubber) it was assumed that h = 0 and that d = 0.1. For rubber and the metals, it was assumed that d = 0 and that h = 0.1. In all cases, it was assumed that f = 0.1.

The values used for  $\gamma_s$ ,  $\gamma_d$ ,  $\overline{P}$  and  $\overline{q}$  are those shown in Table 4-1. The elasticities of supply and demand, for cocoa, coffee, tea, wool, cotton, wheat, rice and sugar were computed using results contained in F. G. Adams, "An Econometric Model of The World Sugar Market," University of Pennsylvania, Department of Economics, Discussion Paper No. 330 (Oct., 1975) and F. G. Adams and J. Behrman, Seven Models of International Commodity Markets, unpublished manuscript prepared for the United Nations Conference on Trade and Development, December, 1974. The elasticities for copper were taken from F. Fisher, P. Cootner and M. Bailey, "An Econometric Model of the World Copper Industry," <u>Bell Journal of Economics</u> Vol. 3, No. 2 (Autumn, 1972), and the elasticities for bauxite from R. Pindyck, "Gains to Producers from Cartelization of Exhaustible Resources," Massachusetts Institute of Technology, Energy Laboratory World Oil Project, Working Paper MITEL 76-012WP (May, 1976). In the remaining cases (jute, sisal, rubber, tin and iron ore) the elasticities used were elecited from commodity experts in the Economic Analysis and Projections Department of the International Bank for Reconstruction and Development.

The values used for  $\lambda$  for cocoa, coffee, tea, wool, cotton, wheat, rice and sugar were taken from Adams, <u>op. cit.</u> and Adams and Behrman, op. cit. In the remaining cases, values were estimated using:

$$\begin{array}{l} \mathcal{A} = \bar{q} \left( 1 - \gamma_{0} \right) \\ \mathbf{a} = \bar{q} \left( 1 - \gamma_{1} \right) \end{array} \tag{4-9a}$$

which hold given Equations 4-4 and 4-5.

All of the base prices and quantities, except those for bauxite, were taken from International Bank for Reconstruction and Development, <u>Commodity Trade and Price Trends</u>, 1975. The base price for bauxite was computed using value and production data from U.S. Department of the Interior, Bureau of Mines, <u>Minerals Yearbook</u>. Bauxite production was taken from American Metal Market, Metal Statistics, 1975.

#### Appendix 4-2

#### Benefits and Costs of Price Stabilization

The values shown in Table 4-3 were computed using results derived by Maissell7.3/ Maissell assumes that supply and demand are, respectively, described by:

$$q^{s} = 2P + X$$
, (4-10)  
 $q^{d} = -\beta P + Y$ , (4-11)

where X and Y are shift factors. He then computes:

$$\overline{G}_{s} = \frac{(\lambda + 2\beta) \int XX - \lambda \int YY}{2(\lambda + \beta) 2}, \qquad (4-12)$$

$$\overline{G}_{c} = \frac{(2\lambda + \beta) \int YY - \beta \int XX}{12(\lambda + \beta) 2}, \qquad (4-13)$$

where  $\overline{G}_s$  and  $\overline{G}_c$  are respectively the expected gains from price stabilization to sellers and buyers, and  $\beta$  XX and G yy are, the variance of X and the variance of Y.

Multiplying and dividing by  $(P/q)^2$ , (4-12) and (4-13) can be rewritten as:

$$\overline{G}_{p} = \left[ \frac{(\gamma_{s} - 2\gamma_{d}) \ \delta XX - \gamma_{s} \ \delta YY}{2' (\gamma_{s} - \gamma_{d})^{2/}} \right] \frac{P}{q}, \qquad (4-14)$$

$$\overline{G}_{c} = \left[ \frac{(2\gamma_{s} - \gamma_{d}) \ \delta YY + \gamma_{d} \ \delta XX}{2' (\gamma_{s} - \gamma_{d})^{2/}} \right] \frac{P}{q}, \qquad (4-15)$$

where  $\eta_s$  and  $\eta_d$  are, respectively, the elasticity of supply and the elasticity of demand.

Equations 4-14 and 4-15 were used to compute the values presented in Table 4-3. The values employed for  $\eta_s$ ,  $\gamma_d$ , P and q were those given

 B. Maissell, "Price Stabilization and Welfare," <u>Quarterly Journal of</u> Economics, Vol. 83 (1969), pp. 285-98.
in Table 4-1. Crude estimates of  $S_{XX}$  were obtained by assuming that supply is 10% its base level, as measured by  $\bar{q}$ , one-third of the time, 10% below base one-third of the time and at its base level one-third of the time. Given these assumptions,  $S_{XX} = (.66 \times 10^{-2}) \bar{q}^2$ . A value for  $S_{YY}$  was similarly computed.

# Appendix 4-3

# Organized Markets in Major Commodities

\$	
Spot Market	Futures Market
None	None
N.Y. Cocoa Exchange: Accran, South American	N.Y. Cocoa Exchange Cocoa Exchange of London up to 18 months ahead
N.Y. Coffee and Sugar Exchange:	N.Y. Coffee and Sugar Exchange, London up to 13 months ahead
N.Y. Cotton Exchange Liverpool, England	N.Y. Cotton Exchange up to 19 months ahead
New York-East African sisal Manila hemp	
In India Some organized Indian markets exist but have not been very successful Bangladesh	Indian markets
Chicago beef Omaha steers choice Sioux City steers choice	Chicago live cattle, feeder cattle
None	None
	Spot MarketNoneN.Y. Coccoa Exchange: Accran, South AmericanN.Y. Coffee and Sugar Exchange:N.Y. Coffee and Sugar Exchange:N.Y. Cotton Exchange Liverpool, EnglandNew York-East African sisal Manila hempIn India Some organized Indian markets exist but have not been very successful BangladeshChicago beef Omaha steers choice Sioux City steers choice None

# Appendix 4-3 (continued)

### Spot Market Commodity Futures Market Singapore Rubber Singapore London London New York -- up to 2 years ahead Kuala Lumpur New York -- up to 12 months ahead Kuala Lumpur N.Y. Coffee and Sugar N.Y. Coffee and Sugar Sugar Exchange Exchange: London London Paris -- up to 18 months ahead Tea London None Ceylon North India Java Formosa Wheat Chicago Chicago Kansas City Kansas City Minneapolis Minneapolis Winnepeg Wool Sydney, Australia Sydney, Australia London -- up to 18 months ahead London -- 3 months forward London Copper New York New York -- up to 18 months forward

# Organized Markets in Major Commodities

-65-- <sup>`</sup>

Tin





Maximum Size of a Buffer Stock When Only Supply Varies

-66-

# 5: Restrictive Commodity Agreements

Restrictive agreements could impose significant price increases on buyers and thereby add immediately to incomes of sellers. But this may not take place for very long. With some exceptions, restrictive agreements have not been more than briefly successful in the past and are not likely to be successful in the future. More important, even when successful they are not likely to produce a significant increase in income for the developing countries. Nevertheless, the policy of using restrictive agreements as a means of adding to producers' incomes has gained a measure of acceptance and consequently must be examined seriously.

# Potential Effects on Producers' Incomes

Restrictive agreements could probably generate significant additional income to producing countries if put into effect and held in place for a reasonable period of time. For example, consider some of the effects of raising prices for commodities in the Integrated Program. The demands for each of the commodities in the IP are probably quite inelastic, so that the increases in prices advocated by those in a restrictive agreement would be substantial and would have a large positive effect on revenue and profit. Table 5-1 presents estimates for commodities likely to be in the IP of the effects of price increases on production, revenue and profit.74/ As indicated, some amount greater than \$10 billion of additional income is included for cartellike price increases for wool, wheat, rice, and sugar producers. Even these estimates are low, however. They are based on the level of demand in 1971, and as demands increase, so do the gains from higher prices 75/

The LDC's would not obtain all of these increases in revenue, however, because the developed countries are responsible for substantial volumes of these commodities. moreover, they would pay the higher prices because they themselves consume these products. The net gains to LDC's are shown in Table 5-2. They would be heavy losers from increases in the prices of wheat and rice

<sup>74</sup>/See Appendix 5-1 for a description of how these estimates were computed.

75/In most cases the long-run or three to five year elasticities are substantially greater. Thus, the long-run effects on revenue and profit each year would be in the neighborhood of one-half to one-third of the values shown in Table 5-1 if agreements actually held together for longer periods. This, however, is doubtful, as will be seen below.

	1	[a]	ole	5-1	-		
Effects	of	a	Pri	CA	Increase	on	Dom

Estimated Effects of a Price Increase on Demand, Revenue and Profit for Eight Commodities

<b>Wayne</b>	20 Percent Increa	se in Price	LOT HIGI	100 Percent In	crease in Pr	ice
	Decrease in demand	Increase in revenue \$ billion	Increase in profi \$ billic	t Decrease in demand	Increase in revenue \$ billion	Increase in profit \$ billion
Cocoa	223,232 l.t.	0.39	0.57	1,116,160 1.t.	1.95	2.87
Coffee	3,581 thousand bags	0.52	0.71	17,906 thousand bags	2.59	3.55
Tea	39,808 m.t.	0.14	0.17	199,040 m.t.	0.72	0.86
Wool	467,616 m.t.	2.30	3.02	2,338,078 m.t.	11.48	15.11
Cotton	610,663 m.t.	0.87	1.19	3,053,313 m.t.	4.35	5.96
Wheat	13 million m.t.	3.76	4.70	64 million m.5.	18.82	23.52
Rice	2.2 million m t.	3,86	4.11	ll.2 million m.t.	19.32	20.55
Sugar	2.3 million m.t.	3.05	3.63	ll.4 million m.t.	15.23	18.10
Bananas	590 million kgs.	.03	.13	2952 million kgs.	.16	.66
Jute	72,230 m.t.	.02	.05	361,115 m.t.	.12	.24
Sisal	23,124 m.t.	.03	.04	115,620 m.t.	.13	.18
Beef	125 million kgs.	.01	.04	627 million kgs.	.04	.18

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<b></b>			(\$ 1	million)				·
	Percent o Commodity Exported by LDC's	f Tota Reve Pric 20	l increase in nue to LDC's e Increase of % 100%	Percent o Commodity Imported by LDC's	f Incre Cost Price 20%	ese in to LDC's Increase 100	Net R of Price % 20%	evenue in LDC's Increase of 100%
cocoa	99.2	386.5	1,932.7	3.0	11.7	58.4	374.9	1,874.3
coffee	96.8	501.4	2,507.2	4.1	21.2	106.2	480.2	2,401.0
tea	82.8	119.4	597.2	28.6	41.3	206.2	78.2	390 <b>.9</b>
wool	11.9	273.3	1,366.4	9.0	206.7	1,033.4	66.6	333.0
cotton	57.9	503.6	2,518.1	16.7	145.3	726.3	358.4	1,791.8
wheat	3.6	135.5	677.4	45.1	1,697.4	8,486.9	-1,561.9	-7,809.4
rice	35.8	1,383.1	6,915.1	71.5	2,762.2	13,810.9	-1,379.2	-6,895.8
sugar	69.7	2,123.3	10,616.4	22.3	679.3	3,396.6	1,444.0	7,219.7
bananas	93.3	30.8	154.0	6.4	2.1	10.6	28.7	143.4
jute	95.6	22.5	112.7	32.8	7.7	38.7	14.8	74.0
sisal	97.7	24.6	122.8	5.2	1.3	6.5	23.3	116.3
beef	30.5	2.7	13.6	5.9	0.5	2.6	2.2	11.0
rubber	97.7	169.8	849.0	9.6	16.7	83.4	153.1	765.5
copper	54.5	831.3	4,156.5	7.2	109.8	549.1	721.5	3,607.4
tin	85.5	160.8	803.8	5.8	10.9	54.5	149.9	749.3
iron	37.9	210.9	1,054.3	0.8	4.5	22.3	206.4	1,032.0

Net Revenue Flows to LDC's Through Increased Commodity Prices

Table 5-2

Sources: U.N. Food and Agriculture Organization ( for Reconstruction and Development (

) and International Bank

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because of their large volumes of imports of these commodities. Their largest gains would be from an increase in the price of sugar, which accounts for just over half of the total gains excluding net losses on wheat and rice. As far as large gains for any one developing country are concerned however, the major beneficiaries would probably be the metals exporters such as Chile, Zaire, Zambia, Bolivia, and Malaysia as well as the exporters of the more valuable agricultural commodities such as Brazil, Cuba and Ghana.

The poorest of the LDC's would be net losers even if wheat and rice were not subject to restrictive agreements. Perhaps, however, the use of agreements is still better than the status quo. The argument is that the gains from agreements can or should substitute for aid and grants, partly because aid is declining or is unreliable. Laying aside questions about the distribution of gains and losses, then, it is relevant to compare the effects of restrictive commodity agreements with the flow of income to LDC's from aid sources. In 1971, the total financial flow to the LDC's from all sources, exclusive of trade, was \$20.2 billion. The estimated gains from doubling the prices of cocoa, coffee, tea, wool, cotton and sugar would be \$14.2 billion. Some of the LDC's would want to include other commodities to the loss of other LDC's from the resulting price increases. But the gains from such price increases on most of the other sixteen commodities would be neglibible. Given the difference between \$20 and \$14 billion, it would not seem to be to the advantage of the LDC's to substitute restrictive commodity agreements for existing development assistance.

#### Actual Effects from Restrictive Agreements

Agreements would not likely retain \$14 billion because of imperfections in organization. This is not to say that there will not be strenuous attempts to set up restrictive agreements. In fact, there are attempts now being made to put together a viable controlling agreement in most of these commodities as well as for all of them together.

The possibility of increased incomes provides sellers with a strong incentive to collectively restrict output and increase prices. There are usually problems of negotiating the level of prices and the shares to be alloted each country or producer, but the inducement of higher incomes for most or all producers usually leads to solutions to these problems. For example, while a low cost producer would prefer a lower price than a high cost producer, there would likely be a compromise price which leaves both producers with more profit than they would obtain without agreement. The ancient insight that "collusion pays" is a driving force to initiating just one more agreement.

But there are forces which work against success even given that an amicable agreement has been formulated. First, a restrictive agreement that succeeds in raising prices also creates a situation in which individual producers may have an overriding incentive to discount or "cheat" on the prices. A well-operating restrictive agreement would be used to increase price substantially above cost. Given that action, any one supplier can increase his profit by making additional sales beyond those in keeping with his allotted market share. But making shipments in excess of quota eventually forces prices down below those that would exist without cheating on shares, and perhaps even below those that would have been realized without any agreement at all.

Price increases work to defeat a restrictive agreement in another way. Entry into an industry becomes more attractive as price is increased. As entry occurs market shares for producers within and loyal to the agreement must fall if the higher price is to be sustained. But this reduces profits towards the levels existing before the agreement and creates an incentive for cheating. The larger number of firms makes detection more difficult so the result is that price breakdowns are more likely.

One way of dealing with the second problem is to attempt to exclude new entrants. There are major objections to this. First, the various commercial means of excluding entry -- for example, long-term requirements contacts and selective price cutting -- are usually not effective. Second, effective means of limiting entry involving use of police power are regarded as obnoxious. Limiting entry by these means is to practice economic warfare and an international organization acting to prevent for example the development of a significant copper industry in Indonesia would have to take collective steps against that country's interests. Taking such steps to block entry would not only require a comprehensive international commodity agreement but an organization that took on supra-national police powers. Some past agreements have attempted to contain the problem of entry by establishing a "free zone;" i.e., geographic markets in which the price is determined by demand and supply. The output of the entrants and "overshipments" of members of the agreement are sold in the free zone. The result is typically a free zone price that is below the agreed price and may be below long-term marginal costs. This creates a strong incentive for purchasers in the free zone to resell in the "regulated zone," and a variety of imaginative procedures have been devised for doing so, for example, in the copper industry. <u>76</u>/ This puts downward pressure on the agreed price, reduces members sales and, eventually, makes continuation of the agreement unprofitable.

The alternative is to admit entrants freely to the agreement, but this would not solve the problem. Where there is significant entry, and entrants are admitted to the agreement, price discipline could be maintained but only with falling market shares for the established countries and thereby at the cost of chronic excess capacity. The result is that the potential profits from higher prices are entirely absorbed by the added costs of excess capacity.77/ Furthermore, as has been mentioned, the existence of excess capacity significantly increases the probability that widespread price cutting will lead to the collapse of the agreement.

Concentration. The control of individual prices and of entry constitute the basic operational problems of any restrictive agreement. The magnitude of these problems depends on a number of market conditions, the most important of which is the efficient scale of operations. Where there are economies of scale, so that the number of efficientsized firms is small relative to the market, then the high degree of market concentration and the "natural" or cost barriers to entry work in favor of the restrictive agreement.

76/During much of the 1960's producer copper was rationed in the United States and the foreign price of copper was substantially above the domestic price. A U.S. firm purchased primary copper at the domestic price and had the material processed into copper rods. These were transported to Chile, cut up and sold (for export to Europe) as new scrap at a profit.

77/See Patinkin ( ) and Worcester ( ) for theoretical developments of this point.

As the number of sellers become larger the problems of detecting cheating increases. Furthermore, the response to price cutting on the part of those loyal to the agreement is always to cut their prices; but this response is effective in deterring further cheating only if the cut is large, and it is likely to be large only when there are few companies.78/ Accordingly, as the number of sellers increases, the perceived interest of each in maintaining a restrictive agreement decreases.

Economics has not yet succeeded in producing a clear statement of how "few" firms or countries there have to be for a viable restrictive agreement -- i.e., in establishing a relationship between concentration in the industry and the probability that a restrictive arrangement will succeed. Most of those familiar with the empirical research in this area would agree that the upper bound of "few" lies in the range of 3 to 10 equivalent-sized sellers. When there are more than 10 sellers, there are usually too many for voluntary agreements to be effective in raising prices even if legally enforceable.

Table 5-3 presents data on the market shares of the largest producers for each of several commodities. The market structure for iron ore exports can be characterized as composed of "many" sellers, so "many" that there is little prospect that a restrictive agreement could be put into effect. The indications of "fewness" are not so clear in the other cases. Concentration of exports in the other commodities shown in Table 5-3 falls into an awkward range -not so high as to make an effective agreement relatively easy, nor so low as to make an agreement impossible to put into effect.

Barriers to Entry. The problems of controlling prices are serious to an extent dependent upon the importance of barriers to entry as well. As was noted earlier, a restrictive agreement cannot be successful for more than a brief period unless entry is limited. Entry into metals is contingent on finding an ore body that can be profitably exploited. The large capital costs of minerals projects may also be a barrier to entry. While detailed study might suggest otherwise, it is a reasonable presumption that entry into the metals industries is relatively difficult.

78/Reference to Orr-MacAvoy

# Table 5-3

#### Export Market Shares of the Four Largest LDC Producers, 1970-72 average (percent) .

bananas	57.4
bauxite	<sup>°</sup> 59.9
beef	23.9
cocoa `	74.5
coffee .	54.4
copper	47.4
cotton	30.8
iron ore	25.9
jute	94.2
rice	26.2
rubber	87.6
sisal	80.7
sugar	42.5
tea	66.3
tin	75.3
wheat	3.3
wool	9.4

# Source: IBRD, Commodity Trade and Price Trends, 1975

Entry into production of wheat, rice, cotton, wool, and meat is relatively much less difficult. The other agricultural commodities in the IP -- bananas, cocoa, coffee, jute, sisal, sugar and rubber -- require more specialized conditions for cultivation. Nevertheless, the number of potential entering countries is large in most cases, given fairly wide tolerance of production to weather conditions and resource conditions in Southern Hemisphere countries.

The Previous Record. There would likely be substantial difficulties, therefore, in operating a priceincreasing agreement for the commodities that would be included in the Integrated Program. But the possibility of a workable agreement cannot be completely discounted on the basis of market conditions. Perhaps, then, the best indication of what is likely to happen can be gleaned from historical experience. Table 5-4 lists previous agreements on commodities included in the Integrated Program. There has, apparently, never been an agreement in eight of these commodities (wool, cotton, rice, jute, sisal, beef, iron ore and bauxite) but there have been several agreements in each of the other commodities. The fact that there have been several agreements in these commodities is of key importance, because it testifies to the difficulty of maintaining restrictive commodity agreements.

The Special Case of the Tin Agreements. The history of tin is illustrative of the problems and prospects for longstanding agreements. There are essentially five producing countries supplying tin in any marketing year. But the major force in the tin market over the past 30 years has been the General Services Administration (GSA) stockpile which reached a maximum of 350,000 tons in 1955. GSA releases have been timed at times so as to complement the actions of the Tin Council's buffer stock manager, and at other times on the other side of the market from the manager. Since 1964, the GSA has made net sales each year, while the buffer stock made net purchases in four of eleven years. Tin agreements have been in effect since 1956, but one must constantly ask to what extent their persistence has been a product of the good graces of the United States.

# Table 5-4

# Previous Agreements on Commodities in the IP

Commodity	Agreements
Tea	<ul> <li>International Tea Agreement (1933-1939) - India, Ceylon, Netherland Indies - restricted exports</li> <li>Mauritus Agreement of 1969 - covering 1970 production <ul> <li>Major tea producers, accounting for 95% of world production</li> <li>Set up export quotas</li> <li>Was meant to be an interim agreement until a more permanent agreement could be negotiated</li> </ul> </li> </ul>
Wheat	<ul> <li>International Wheat Agreement - 1949, 1953, 1956, 1962, 1967, 1971</li> <li>Most major importers and exporters</li> <li>1971 Agreement has no economic provisions, whereas all others were "multilateral purchases and sales" agreements</li> </ul>
Rubber	<ul> <li>Stephenson Plan - Britain (1922-1928) involving British colonies accounting for 72 percent of 1922 capacity</li> <li>International Rubber Regulation Agreement (1934-1939)</li> <li>Britain, Netherlands, France, India, Siam</li> <li>Malaysia, Indonesia, Thailand, and Sri Lanka may have recently come to a new agreement</li> </ul>
Sugar	<ul> <li>1931-35 Cuba, Java, Czechoslavakia, Poland, Germany, Belgium and Hungary</li> <li>International Sugar Agreements - 1937, 1953, 1958, 1968</li> <li>- covering only a small amount (10%) of world production since majority of trade covered by preference agree- ments (e.g., U.S. Sugar Act)</li> <li>- the 1968 Agreement ended in 1973 but the International Sugar Organization still collects statistics.</li> </ul>

# Table 5-4 (continued)

Commodity	Agreements
Coffee	Inter-American Coffee Agreement (1940) - U.S. and 14 Latin American countries International Coffee Agreements, 1962, 1968, 1972 The 1962 and 1968 agreements, which included most major importers and exporters, were successful in times of surplus production, but the 1968 agreement was not successful when frosts reduced production, The 1972 agreement has no economic provision and serves mainly to provide the statistics needed for future agreement negotiations.
Bananas	Union of Eanana Exporting Countries - Honduras, Panama, Guatemala, Costa Rica, Dominican Republic, Columbia, (1974 - ) - set export tax
Cocoa	<ul> <li>International Cocoa Agreement (1956-1972)</li> <li>International Cocoa Agreement (1973-1976)</li> <li>most producers and 70 percent (by volume) of consumers</li> <li>U.S. not a member</li> <li>economically inoperative because of relatively high market prices.</li> </ul>
Copper	1919-1926 - Copper Exporters Association 1926-1931 - Copper Exporters Inc. 1935-1939 - International Copper Control
Tin	1931-1956 - International Tin Control Scheme
	1956 - International Tin Agreement

The 1956 agreement and all subsequent agreements have been for five years. In the most recent agreements, three price ranges have been specified: the buffer stock manager has discretion in the middle range, but must sell when prices rise into the upper range and must buy when prices drop into the lower range. Export quotas can be employed to defend the price floor. The Fifth International Tin Agreement is scheduled to go into effect this year and the United States has announced its intention to participate for the first time.

The most recent history of the agreement has been one of successful defenses of the price floor, with frequent failures to moderate price rises above the ceiling (as in 1961, 1963-66, and 1973-74). The buffer stock was exhausted in 1961 and again during all of the 1970's. During the lifespan of these agreements, average prices have been higher if only because they eliminated the low end of the price distribution. The relatively infrequent use of export quotas (they have been in effect only five years since 1956) and the profitability of buffer stock operations suggest that the day-to-day operations of the Tin Council have not raised prices above the long-term equilibrium level. But one should be hesitant about regarding the new agreement as benign. With the United States now a participant, the other members may feel less threatened by the GSA stockpile and might commence the use of more restrictive practices.

Other Cases: Rubber, Copper, and Coffee. The operations of agreements in the rubber industry have been less successful than in tin. In 1920, the British Rubber Growers' Association in Malaya agreed on a voluntary plan to restrict output on large estates by 25 percent. Prices were falling as a result of the U.S. recession and the coming into production of trees planted during the boom years at the turn of the century. But the voluntary plan met no success as native growers increased output to fill in for the British estate owners.

At the request of the growers' association, the Britsih Government appointed the Stevenson Committee to study the problems of the industry. The Committee reported out a plan of export and production controls in 1922 and strongly recommended cooperation with the Dutch Government so as to bring the Netherlands and East Indies into the fold. Despite the urgings of the Dutch Rubber Growers' Association, the Dutch

Government refused and so the Stevenson plan was instituted only for Malaya and Ceylon. But the combination of supply restrictions and growth in demand put into effect at the time produced a rise in prices which peaked in late 1925early 1926, when prices stood at 330 percent of their pre-plan level. The operation of the plan stirred sharp consumer protests and in 1926 a central buying pool was organized in the United States. More significantly, there were increased plantings, increased Dutch production, increases in the use of reclaimed rubber and active research into the possibility of rubber substitutes. Between 1921 and 1927, the British share of the world market dropped from 67 to 53 percent, while the Dutch Colonies' share rose from 25 to 40 percent. The use of reclaimed rubber in the United States rose from 19 percent of crude rubber in 1922 to 51 percent in 1928. Of greatest long-run importance was the research into synthetic rubber taking place in the United States and Germany: according to Stocking and Watkins, the foundations for the development of synthetics were laid around 192579/ The Stevenson plan collapsed in 1928 after six years' life.

The new Dutch supplies from the 1920's plantings plus the impact of the depression created a situation in the rubber market in the early 1930's which was very similar to that in the tin market. The response was similar as well, and in 1934 the International Rubber Regulation Agreement was formed. Participating governments were those of the United Kingdom, India, France, Siam, and the Netherlands. The agreement was renewed for five years in 1938. The mechanisms of control were quotas on production and exports and strict limits on new planting. Once again, governments provided the means of enforcement.

There were in those years substantial price increases, attributable in part to the exertion of market power by those in the agreement, even though the primary force was growth in demand. The agreement became inoperative with the Japanese invasions of the rubber-growing areas in 1941. At the time, however, severe problems of interproduct competition were developing. Synthetic rubber made rapid advances in the 1940's; between 1941 and 1944, U.S. consumption of synthetic rose from 8,000 tons to one million. This development as much as anything led to the

79/G. W. Stocking and Myron Watkins Cartels in Action (the Twentieth Century Fund, 1946). formal termination of the IRRA in April 1944. It did not resurface after the war.

Conditions in the copper market have not been favorable towards cartelization. The cross-elasticity of demand between copper and aluminum is high. Though copper is mined on a large scale and the number of firms in the industry is relatively small, there is no uniformity of interests between the producing countries. Then, too, entry opportunities are substantial (in fact, the last ten years have witnessed the entry of important new areas such as Papua New Guineas into the market).

Nevertheless, several attempts to exert market power have been made. A unilateral restriction undertaken by a Zambian producer in 1955-56 was attempted, but failed for want of cooperation from other producers. A second and more successful restriction took place between 1964 and 1966. After two years of rising prices, price discounting began and the coordination between producers collapsed. The most recent experience has been the formation in 1967 of a producers' association (CIPEC) between Chile, Peru, Zaire and Zambia. Calls for voluntary restrictions of exports have been made in the last several years, but there has been no appreciable response.

In coffee the producer incentive for control over the market was turned into a realistic aspiration when the Kennedy Administration announced in 1962 its willingness to join a coffee agreement. The International Coffee Agreement was signed that year with 32 exporting and 22 importing countries participating, accounting for 95 percent of the coffee trade. The control mechanism was the application of export quotas. A feature of the agreement which caused problems in the mid-1960's was the division of consuming nations into "traditional" and "new" markets (areas with low coffee consumption). The export quotas did not apply to new markets and a cartel-threatening transshipment problem arose, which was surmounted by introducing a system of certificates of origin, to be enforced by consumer governments. The United States complied with this system. The problem of expansion by new producers, in this case the Africans, was handled by reducing the quotas of older (and lower cost) producers, such as Brazil.

Coffee prices rose in the years immediately following the first agreement. Alton Law states flatly:

"The 1964 price jump (to nearly 50¢) must be considered the direct result of the coffee agreement, with only minor, if any, assistance from the weather."

Prices fell in the following years, but despite the transshipment problem just mentioned, the agreement survived and was renewed for a five-year period in 1968. Prices rose sharply in 1970 and 1972 and discontent with the workings of the agreement grew in consuming nations. Against this was the producer desire for even tighter restrictions; part of their argument cited the adverse impact of the dollar devaluations. The ICA collapsed in 1972 when a group of 21 producers unilaterally reduced exports. An interim arrangement was worked out in 1973, but it contained no economic provisions. A new draft coffee agreement has been proposed, this time with the reinsertion of economic provisions, and the United States has indicated a willingness to participate.

Mention should be made of attempts at agreements in sugar and cocoa. None of the post-war sugar agreements, from 1954 to 1968 and 1968 to 1972, seem to have had much of a price-raising effect. As always, this does not necessarily mean that they made no impact on prices, since they might have stemmed what would have been a larger In any event, prices in 1954 (the first year decline. of the initial post-war International Sugar Agreement or ISA) fell by 4.4 percent. After dormancy in the mid-1960's, the ISA was re-organized in 1968. Prices that year fell by 0.5 percent. And although prices went up in the general price level changes in 1969-72, the economic provisions were suspended in 1972 when sugar prices started their most precipitous climb. The provisions terminated officially in 1973, and were not renewed due to disagreement between producers and importers on appropriate price ranges.

As in the tin market, U.S. domestic policy has been the driving force in the sugar market. The U.S. sugar price was nearly always greater than the free market price. If world supplies were large and the United States

imported little, free market prices plunged. If supplies were tight, but the United States wanted large imports, it generally received them, even if for a short period the free market price exceeded the U.S. price. The longterm benefits to producing nations of the U.S. program were simply too great for those countries to risk not fulfilling their quota. The ISA probably had only a marginal effect on average sugar prices, but then only because the United States was a willing buyer at the higher prices.

In cocoa there were two attempts to restrict output by producers in the 1960's. An effort in 1962 failed due to the lack of cooperation of some Latin American producers. The Cocoa Producers' Alliance, consisting of Ghana, Nigeria, Brazil, Ivory Coast, Cameroun Republic, and Togo, tried to withhold part of the 1964-65 crop. The move failed due to uneven compliance and because consumers were able to out last the alliance by running down stocks. The International Cocoa Agreement of 1972 had the usual features of a targeted price range and export quotas. Soon after the signing, prices soared above the ceiling price, so the agreement had no impact.

<u>Conclusion</u>. Concerted attempts to set higher prices usually lasted three to five years, except for tin, which with higher concentration and entry barriers lasted longer. Even when they were operating the entry of non-members, and the expansion of substitutes and the occurrence of price cheating by members all severely curtailed price increases. There were many techniques developed to deal with these problems, but none were successful except that of obtaining the assistance in price and entry control from the buyers. In particular, the United States as consumer, in a number of cases, acted to curtail activities which could or would have reduced prices in consumer interests.

Conditions for future operation of restrictive agreements are no different. The number of countries now able to provide supplies is certainly not less then in the 1960's, and in most industries there are ready entrants. There are no new mechanisms beyond export controls and admonition for holding in line countries exceeding their quotas. The only source of new optimism for operating sustained price increasing agreements comes from the demand side - if buying countries hold up the higher prices they pay, then cheating would no longer work. Whether this additional initiative would be forthcoming - against the interests of consumers in the buying countries, including buying countries that are LDC's - is a political matter to be discussed below.

### 6: Conclusions

The position of the consuming countries (or the developed countries) on the appropriations of commodity agreements is mixed. Most have rejected the use of commodity agreements to transfer income to the LDC's via higher commodity prices. However, they have agreed to consider commodity agreements on a case-by-case basis. Given that the LDC's have pushed for a comprehensive system of commodity agreements, this is a dangerously ambiguous policy.

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A clear policy on commodity agreements requires a statement of the objectives to be served and an indication of the appropriate means. Behind these specific statements there must be a clear vision of the role that commodity agreements have to paly in the world's economic system. The preceding chapters have been directed to these issues.

It is necessary to draw a sharp distinction between two objectives of commodity agreements and that of transfering income and that of achieving a reduction in period-to-period variations in prices. Price instability has only a minor effect on incomes. Price level increases via restrictive commodity agreements can have a major effect on incomes.

Commodity agreements to increase prices are directly geared to suppliers' interests, while agreements to reduce fluctuations can be to the good interests of both buyers and sellers. Whether the agreement will be successful in increasing prices, and whether it is limited to reducing price fluctuations depends to a significant extent on the provisions of the agreement. If an agreement is to be successful in increasing prices, it must have: (1) a means for limiting output such as export quotas and production controls; (2) a means for policing the agreement; and (3) a means for limiting entry. If the agreement is to be limited to reducing price fluctuations without increasing the average level of price, (1), (2), and (3) would not be necessary, but other rather special conditions set out in Chapter 3 must be satisfied. There are a very few cases -- cotton, sugar, jute, sisal, rubber -- in which pure buffer stocks might be warranted on a benefit/cost basis. This is not certain and, for sugar and rubber, it is not even certain that the LDC's would be net gainers. The major point to be recognized is that pure buffer stocks are at most a very limited mechanism.

Commodity agreements designed to increase prices could be created in a number of cases, especially if the buying countries supported a commond fund to finance the steps required in (1), (2), and (3) as well as to finance the acquisition of some stocks to be purchased during excess supply periods. However, both the structure of the commodity markets and past history suggest that such arrangements are unlikely to be successful for more than three or four years. Commodity agreements designed to increase prices would not, therefore, ultimately have a significant impact on development. Furthermore, as commodity agreements begain to fail, they would present extremely devisive issues. The buying countries would, by participating, be blamed for the failure and also could be put in the position of using its economic and political power to arbitrate disputes among the LDC's.

Two conclusions emerge from this discussion. First, in only those cases identified above should buffer stocks be considered and even in those cases, the agreements should embody stringent limitations. Second, buyers and sellers together should oppose the creation of agreements designed to increase commodity prices.

Date: September 5, 1976

MEMORANDUM FOR: SECRETARY SIMON

From:

Charles M. Walker Cur Assistant Secretary for Tax Policy

Subject:

Tax Bill - Current evaluation

On Thursday, September 2, the Conference Committee adjourned until September 8. Its action as of September 2 left several major items open for resolution. Attached is a list of those items.

Also attached is a tabulation listing all the tax issues presented to the Conference Committee. The numbering system was adopted in the spread sheets used by the Committee. Following the full list of all items is a selected group of items that I think will be particular interest.

The checked columns show my evaluation of each item on a scale of good, bad or indifferent, and in the good and bad categories, a breakdown of significant or not significant items. Classifying an item as one about which I am indifferent, I mean to say it makes no difference whether the item is adopted or dropped. Thus these items can be ignored in deciding whether to recommend signing the bill or vetoing it.

The items still open involve the significant issues of tax shelters and minimum tax. These go to the heart of "tax reform" and also are flexible revenue gainers. Also open are very expensive items relating to credit for child care expenses (#39), tax exemption of sick pay (#40), and extension of IRA benefits (#138). Until conference action is concluded, a final evaluation of the bill cannot be made. The conference reconvenes Wednesday, September 8. It may well conclude by the 9th or 10th.

In tallying the good and bad items, the breakdown between siginificant and not significant items is to aid in reaching a "sign" or "veto" recommendation. The greatest weight thus can be given to the tally of significant items. The not significant items have a cummulative make weight effect.

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Some evaluation entries represent only my own ideas in light of related developments in the bill. For example, since the President's deepened tax cut proposal has been rejected, the extension of existing tax credits and standard deductions provided for in the bill (items #34-36) have been marked as good. The extension of existing tax cuts were in both the House and Senate bills and thus were not in conference. Another example is the capital gain item (#135) increasing the holding period from 6 months to 1 year which I show as bad. While we supported that move, it was in tandem with the sliding scale proposal which neither House nor Senate adopted and thus is absent from the bill. Without the sliding scale, I think the longer holding period is bad, but not enough so to tilt the recommendation significantly toward a veto.

Preliminarily it should be noted that the following items in the Administration's tax program were omitted from the bill:

a. Omitted were the deepened tax cuts accomplished by introducing a higher personal exemption, a simplified standard deduction and rate reductions, while eliminating the refundable earned income credit and the per exemption general tax credit. The deepened tax cut proposal was, of course, tied to the spending restraint which is not in the bill either.

b. Closing of tax shelters by means of LAL will doubtless be replaced by other means. While the Conference Committee has not yet acted on tax shelters, it clearly is not disposed to adopt LAL.

c. Repeal of withholding tax on interest and dividends paid to foreign investors, urged by the Administration, will not occur. However, the exemption from tax of interest paid on bank accounts of foreigners has been made permanent. (Item #79)

d. The job creation incentive proposal designed to provide jobs in areas of high unemployment is not included in the bill.

e. The electric utility tax package is not included in the bill.

f. The Broadened Stock Ownership Plan is not included in the bill.

g. The sliding scale proposal for reducing the amount of capital gain to be taxed according to the length of time the asset is held is not in the bill.

h. The refundable credit for expenditures to insulate a personal residence has been taken out of the bill along with all the other energy related items.

i. Estate and gift tax changes substantially as proposed by the Administration may yet be included. The subject is still open before the Committee. If included, the following appear likely to be the differences from the Administration's proposals:

1. The \$60,000 exemption will be improved. The Administration recommended an increase to \$150,000, phased-in over 5 years, accompanied by appropriate rate changes. Both the Senate version and the Ways and Means proposal have the same objective but use a credit mechanism instead of an exemption. The results are essentially the same.

2. Liquidity problems for owners of farms and small businesses were remedied by the Administration proposal to extend the time during which the tax could be paid, and to charge a very low interest rate on the deferred payments. Some similar, but not adequate relief has been included in the Senate version. Still, it is a start in the right direction.

3. The Administration proposed a free interspousal transfer rule, <u>i.e.</u>, a provision permitting husbands and wives to transfer property to each other, by gift or inheritance, without incurring a gift or estate tax liability. The most that likely will emerge is an enlargement of the marital deduction. This is not adequate relief, although it is certainly a step in the right direction.

4. There likely will be included a tax on generation skipping transfers. Thus, if a father's will leaves property in trust to provide income to his son for life and at the son's death to provide for distribution of the trust property to his grandson, there would be a skipped generation. That is, under present law there would be a tax at the father's death on the value of property transferred to the trust but there would not be a second tax on the trust property at the son's death. The tax on a generation skipping transfer would impose a tax on the value of the trust at the son's death as though it were part of the son's estate. Not only is the proposal extremely complicated, but it seriously impacts on legitimate, non-tax motivated trust transfers to meet an infinite variety of personal family needs.

5. There doubtless also will be included a provision for special valuation of farms and probably small businesses. The Administration has not sponsored such a measure, but the 1976 Republican platform supports it.

6. It is uncertain whether there will be a provision taxing capital gains at death, or alternatively provisions carrying the decedents tax basis over to his heirs. The Administration has gone on record as opposing those measures.

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Attachments

# MEMORANDUM FOR: SECRETARY SIMON

From: Charles M. Walker Assistant Secretary for Tax Policy

Subject: Tax Reform Act of 1976 (H.R. 10612 -- Conference Action on International Boycotts)

The Conference Committee this past week adopted an international boycott measure which appears to be significantly less restrictive than the measure contained in the Senate Bill. This memorandum briefly summarizes the Conference measure and attempts to assess in general terms the measure's probable impact. It should be emphasized that this analysis is based upon the general decisions reached by the Conference on Wednesday and Thursday and upon a preliminary drafting session held Friday morning. We will not be in a position to fully evaluate the Conference measure until it is actually reduced to writing, probably Tuesday or Wednesday, although further drafting may be done Sunday or Monday.

# I. Summary of the Conference Measure

A. Prohibited Boycott Practices

The conference measure, like the Senate measure, would extend to three principal types of boycott activity:

- 1. discrimination on the basis of nationality, religion, or race in terms of hiring or selecting employees, managers or directors.
- 2. participation in a "secondary" boycott, i.e., a company agrees to refuse to do business with a specified country.
- 3. participation in a "teritary" boycott, i.e., a company agrees to refuse to do business with other companies which do business with a specified country.

	Initiator	Reviewer	Reviewer	Reviewer	Reviewer	Ex. Sec.
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Irm OS-3129 Ipartment of Treasury It is important to note that the Conference measure carves out several significant exceptions to the list of proscribed practices. First, we understand that the Conference measure will require, as an element of the offense, that a taxpayer both <u>agree</u> to comply with one of the three boycott elements and in fact so comply. Thus, it appears that the measure might not hit a taxpayer who doesn't agree to participate in a boycott but participates anyway or a taxpayer who agrees to participate but does not in fact participate. Second, the term "boycott activity" will not apply where a country prohibits bringing into that country goods produced in a specified second country. Presumably this would allow an Arab country to prohibit the importation of goods produced in Israel. Third, the term "boycott activity" will not apply where a country prohibits the export of products obtained in that country to any specified second country. This provision would appear to allow Saudi Arabia, for example, to specify that oil from Saudi fields not be sold to Israel.

### **B.** Tax Sanctions

The Conference measure denies a taxpayer the benefits of the foreign tax credit, DISC, and deferral with respect to a taxpayer's boycott activity. The Conference deleted the denial of the employee earned income exclusion as a tax sanction. The Senate bill would have denied the various tax benefits with respect to all income from all countries participating in a particular boycott, even if a taxpayer were participating in the boycott in only one country. The Conference measure however, would allow the taxpayer to obtain the various tax benefits attributable to non-boycott activity in boycott countries. For administrative purposes, the Conference measure assumes that, once it is established that a taxpayer has participated in a boycott, other transactions in the same or other countries participating in that boycott are boycott related. The taxpayer, however, is allowed to establish on an activity-by-activity basis that it is not participating in the boycott.

The application of the activity-by-activity concept will determine to a significant extent the actual economic effect of the Conference measure. The discussions at the preliminary drafting session suggest that the statute will be vague in this regard, leaving the administration of the concept largely to Treasury's discretion. The Joint Committee staff appears to have in mind differentiation on a country-by-country basis and along various lines of business. This will probably result in a substantial administrative burden on Treasury. It may also result in a significant easing of the magnitude of the various tax sanctions. The Senate bill did not specify precisely how the actual amount of the denied tax benefits was to be computed. The Conference measure, however, specifically would set forth a proportional test for determining the extent to which tax benefits are to be denied. The Conference approach denies the various tax benefits in accordance with the ratio of the value of the sales or purchases of goods and services arising from boycott activity to the total value of the taxpayer's foreign sales or purchases of goods and services. The Joint Committee staff would like to provide the taxpayer with the option to trace and compute the actual tax benefits attributable to the boycott activity. It is not clear if this option would be acceptable to the Conferees.

## II. Impact of the Conference Measure

It appears that the Conference international boycott measure would be significantly less restrictive than the Senate measure. The preliminary drafting session suggested that many critical provisions of the measure will be left vague and hence subject to the Treasury's administrative discretion. The critical sections appear to be the following:

### A. Exceptions to Procribed Boycott Practices

The definition of boycott activity would not prevent a country from prohibiting the importation of goods produced in another country, nor preclude a country from preventing the exportation of products obtained in that country to another country. If these exceptions are broadly interpreted, the most significant aspects of the Arab boycott would not result in tax sanctions. The exportation exclusion should be particularly significant with respect to the oil companies.

### B. Requirement of Both Boycott Agreement and Conduct

If the Conference measure, as drafted, requires both an agreement to participate in a boycott and conduct consistent with that agreement, much of the current boycott activity would not result in tax sanctions if the Arabs are willing to forego the requirement of written agreements. Much of the boycott may be continued through informal understandings. This requirement should also allow transactions to take place without penalty where the Arabs are requiring a written agreement but not enforcing them, <u>i.e.</u>, allowing conduct inconsistent with the boycott.

### C. Activity-by-Activity Differentiation

The activity-by-activity concept ensures that the punishment fits the crime. Where taxpayers participate in the boycott on a selective basis, whether by country to country or whether by product to product, tax benefits will be denied only with respect to the boycott activity. This assumes that the taxpayer will seek to overcome the statutory presumption that any boycott activity taints all transactions in a boycott country. Many taxpayers may be able to overcome the presumption.

### III. Conclusion

The discussion set forth in this memorandum represents our extrapolation of the general decisions reached by the Conference and the thoughts expressed at Friday morning's preliminary drafting session. It should be emphasized that a number of the mitigating features of the measure have been suggested by the Joint Committee staff and may not be acceptable to the Ribicoff forces. The Conference staff plans to have a first draft of the international boycott provisions on Sunday or Monday. We will then be better able to assess the measure's likely impact.

cc: Gerald L. Parsky

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Titles I and II LAL and other tax shelter provisions 1 - 30 (open issues)					
Title III Minimum and Maximum Tax					
31 - 33 (open issues)					
Title IV Individual Tax Reductions					
34 Per capita tax credit of \$35 through 1977	x				
35 Standard deduction - 1975 increases made permanent	x				
36 Earned income credit extended through 1977	x				
37 Refunds from earned income credit are to be disregarded in determining eligibility for assistance benefits					x
Title V Tax Simplification					
38 Alimony is made an above-the-line deduction					x
39 Child care expense (open issue)					
40 Sick pay (open issue)					
41 Moving expenses - increased to \$3,000 deduction househunting expense. Special rule for military		x			
42 Tax simplification study by Joint Committee					х
43 Deleted from bill. Treasury simplification study	-	-	-	-	-

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Titl	e VI Business related individual provisions				
·44	Deduction for business use of homes - tightened		x		
45	Deduction for expense of rented vacation homes - tightened		x		
46	Deduction for attending foreign convention - tightened		x		
47	Repeal qualified stock option rules		x		
48	Capital loss treatment of nonbusiness loan guarantees		x		
49	Legislators travel expenses (open issue)				
Titl	e VII Accumulation trusts				
50	Accumulation trust - Capital gain throwback rules		x		
Tit]	e VIII Capital formation				
51	Investment credit - used property limit of \$100,000 extended through 1980	x			
52	10 percent investment credit extended through 1980	x			
53	FIFO use of investment credit carryover	x			
54	Deleted from bill: Extension of expiring investment credit	_	-	-	-
55	ESOP - 1 percent investment credit plus 0.5% if employees contribute equal amount - apply through 1980				x
56	Deleted from bill: prohibition of certain ESOP regulations	-	-	-	-
57	Task force to study stock ownership expansion				
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58	Investment credit for movies		x			
<b>59</b>	One-half investment credit for vessels constructed with money from tax free capital construction fund				x	
60	Eligibility for capital construction fund benefits extended from 5 ton to 2 ton requirement for commercial fishing vessels				x	
61	Net operating losses: elect to use 2 more years forward	•	x			
62	Tighten rules to prevent trafficing in operating losses	x				
<b>`</b> 63	Deleted from bill: credit for artist's donation of art works to charity	_	-	-	-	-
Titl	le IX Small Business provisions					
64	Continues corporate tax rate reduction and exemption increase through 1977	x				
*						
Titl	Le X Changes in the treatment of foreign income					
65	Exemption of income earned abroad - tightened and reduced from 20,000 to 15,000		x			
66	Joint returns ok'd for U.S. citizen married to alien		x			
67	Foreign trust income taxed to grantor where beneficiary is U.S. person	x				
68	Accumulation distribution of foreign trust bears additional tax equivalent to interest		x			
69	Unrealized appreciation in assets transferred to foreign entities subject to increased excise tax or, at taxpayer's option, to income tax on the gain		x			
70	Investment in U.S. property by controlled foreign corporations: permits portfolio investments and investments in drilling rigs		x			

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		<b>6</b>	NS	8	NS	
71	Shipping profits of foreign corporations - provisions eased		x			
72	Deleted from bill: would have changed and made difficult to administer rules re base company sales income derived from sales of agricultural products not grown in the U.S.	-	-	-	-	
73	Foreign tax credit determined on overall basis - per country limitation repealed (some questions may still be open	. <i>.</i>	x			
74	Permits recapture of foreign losses (transitional rules for U.S. posessions and Puerto Rico may still be open)		Ţ			
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75	Refinement of foreign tax credit computation where there are capital gains		x			
76	Foreign oil and gas extraction income - 48 percent cap on foreign tax credit		x			
77	Underwriting income is sourced at place of risk		x			
78	Foreign tax credit rules of 2nd tier subs apply also to 3rd tier subs		x			
79	Tax exemption is made permanent for interest on bank deposits of foreign owners	x				
80	Transfers to foreign comporations no longer require IRS ruling in advance	x				
81	Income from contiguous country branches of domestic life insurance companies not taxed until repatriated					x
82	Improve tax treatment of corporations conducting business in Puerto Rico and U.S. possessions		x			
83	Repeal provisions relative to China Trade Act corporations - 3 year phase out		x			
84	Denies benefits of DISC deferral and foreign tax credit to taxpayers participating in Arab boycott of Isreal - see descriptive memo. Foreign bribes deemed a distribution to U.S. parent company and may not reduce earnings and profits of foreign subsidiary.	1		*		
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Tit	le XI DISC	<u> </u>			MD	
85	DISC - incremental approach adopted. About 2/3 of DISC benefits preserved. Only 1/2 military sales qualify. Agricultural products qualify			x		<u>_</u> 1
Title	e XII Administrative provisions					
86	Publication of private IRS rulings. Taxpayers names not to be disclosed	x				
87	Disclosure of tax return information restricted. Justice Department access is had in certain prescribed nontax criminal cases	×		·		
88	Income tax return preparers - requirements imposed		x			
89	Jeopardy assessments are made contestable by taxpayer	x				
90	Administrative 3rd party summons: taxpayers are given right to contest. Justice Dept. objects			x		
91	Tax abatement can be requested by taxpayer whose assessments due to math or clerical error		x			
92	Requires Federal withholding of state income taxes from military personnel					x
93	Requires Federal withholding of state and local income taxes from National Guard or Ready Reserve					x
94	Permits federal withholding of state income taxes from federal employees so requesting					x
95	Definition of City for purposes of withholding already enacted - PL 94-355	-	-	-	-	-
96	Withholding on winnings from state lotteries over \$5,000 and certain horse race winnings		x			
97	Self employment status (no withholding) for crewmen on fishing boats with crew less than 10			2		

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	137	HR-10 plan percentage limitations will not apply where adjusted gross income does not exceed \$15,000					x	
	138	IRA made available to persons inadequately covered by an employer plan; possibly extended to participants in a government plan (open issue)						
	139	Members of Armed Forces Reserves and National Guard may qualify for an IRA		x	5			
	140	Contributions for tax-sheltered annuities can be made to closed end investment companies as well as to open end mutual funds					x	
	141	Allows a pension fund to invest in an insurance <b>Co.</b> segregated asset account in lieu of a trust			·		x	
	142	Extend to 1978 a Congressional study of salary reduction plans; meanwhile freezing status quo					x	
	143	Permitting consolidated returns of life insurance companies with non-life companies (open issue)						
	144	For taxation of life insurance companies, the time for which a policy is issued or renewed includes the period for which the insurer guarantees renewability					x	
	145	No provision - separate legislation (PL 94-267) handled. Pension Plan rollover to IRA	-	-	-	-	-	
	Title	e XVI Real Estate Investment Trusts						
	146- 155	Real estate investment trusts - technical amend- ments- no controversy	x					
	Title	e XVII Railroad Provisions						
	156	Deleted from bill: 10 year amortization of railroad track accounts	-	-	-	-	-	
-	157	Allows special expensing rules for improved rail- road ties		<b>x</b> .		-		
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	<b>182</b>	Exempts from unrelated business income tax the income from fairs and expositions which promote certain public entertainment activities; also exempts income from certain conventions and trade shows		x			
	183	Charitable organization may bring suit to determine its right to tax exemption as a charity	x				
	184	Deleted from bill: establishment of alcoholism trust fund	 -	-	-	-	-
	185	Deleted from bill: babysitters as independent contractors and not employees of placement agency	-	_	-	-	-
	<b>186</b>	Deleted from bill: private foundation qualifying distributions could include \$200 to miscellaneous civic groups	-	-	-	-	-
	Titl	e XXII . Estate and Gift Tax Provision .					
	187- 208	Estate and gift tax (open issue)					
۲.	Titl	e XXIII Other Amendments					
	209	Gain on condemnation of outdoor advertising display need not be recognized if proceeds are reinvest- ed in real property though not related to advertising	5				x
	210	Changes bracket system of taxing certain cigars					x
• • • •	211	Broadens the circumstances denying capital gain treatment on sales between certain parties: includes commonly controlled corporations; parents adult children; trusts, estate or partnership in which taxpayer is a beneficiary or partner	5;	×			
i	212	Excludes from income through 1979 amounts received under Armed Forces Health Professions Scholar- ship Program					x
· -	213	Deleted from bill: tax counseling for the elderly	-	-	<u> </u>	-	-
	214	Deleted from bill: Commission on value added tax	-	-	-	-	-
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	241	Deleted from bill: establishment of Commission on Tax Simplification and Modernization	-	-	-		
	242	Extends common trust fund treatment to cover custodial accounts, such as uniform gifts to minors accounts		x			
	243	Permits depletion to be retained on property transferred between certain controlled groups		x			
-	244	Allows noncustodial parent to receive exemption for child if he or she contributes at least \$1,200 for <u>each</u> of the children					x
	245	Extends to 3 years (previously 2 years) period within which replacement real property can be purchased to prevent recognition of gain pm involuntary conversion of real property. Deleted proposal to remove the "like kind" requirement for replacement property			•		x
	246	Increases to \$35,000 (previously \$20,000) amount of gain elderly taxpayers can exclude from income on sale of principal residence		·x			
	247	Deleted from bill: exemption from tax for certain mutual deposit guarantee funds	-	-		-	-
	248	In counting the permitted number of shareholders for subchapter S corporations, a spouse and estate of deceased spouse will be one if both would have counted as one before spouse's death, grantor trusts amd voting trusts are eligible shareholders. See also item 117		x			
	249	Extends IRA availability to members of voluntary fire departments if benefit from private plan does not exceed \$150 per month					x
	250	Permits cash method farmers to defer for one year income from livestock sold on account of drought conditions				x	
1				tu -			

## Selected Group of Items of Particular Interest

- .44 Deduction for business use of homes tightened
- 45 Deduction for expense of rented vacation homes - tightened
- 46 Deduction for attending foreign convention tightened
- 47 Repeal qualified stock option rules
- 51 Investment credit used property limit of \$100,000 extended through 1980
- 52 10 percent investment credit extended through 1980
- 53 FIFO use of investment credit carryover
- 55 ESOP 1 percent investment credit plus 0.5% if employees contribute equal amount - apply through 1980
- 63 Deleted from bill: credit for artist's donation of art works to charity
- 64 Continues corporate tax rate reduction and exemption increase through 1977
- 67 Foreign trust income taxed to grantor where beneficiary is U.S. person
- 76 Foreign oil and gas extraction income 48 percent cap on foreign tax credit
- 79 Tax exemption is made permanent for interest on bank deposits of foreign owners

- 84 Denies benefits of DISC deferral and foreign tax credit to taxpayers participating in Arab boycott of Isreal - see descriptive memo. Foreign bribes deamed a distribution to U.S. parent company and may not reduce earnings and profits of foreign subsidiary.
- 85 DISC incremental approach adopted. About 2/3 of DISC benefits preserved. Only 1/2 military sales qualify. Agricultural products qualify
- 86 Publication of private IRS rulings. Taxpayers names not to be disclosed
- 87 Disclosure of tax return information restricted. Justice Department access is had in certain prescribed nontax criminal cases
- 90 Administrative 3rd party summons: taxpayers are given right to contest. Justice Dept. objects
- 101 Social Security numbers can be used for state and local tax administration, drivers licences, motor vehicle registration and for locating runaway parents
- 124 Contributions to water and sewer utilities in aid of construction will not be taxable to them
- 129 Historic structures tax benefits provided for rehabilitation of, and tax advantages denied to taxpayers who demolish, historic structures
- 131 Exclusion of countries which aid and abet international terrorists from preferrential tariff treatment

- 134 Increase from \$1,000 to \$2,000 in 1977 and to \$3,000 in 1978 the amount of ordinary income against which capital losses may be offset
- 135 Increase holding period for long-term capital gains to 9 months in 1977 and to 12 months in 1978. The 6 month period continues for farm commodity future contracts. (The sliding scale provision was not in conference; was in neither the House nor Senate bill)
- 158 Railroads may use investment credits up to 100 percent of tax liability (instead of 50 percent under current law) for 1976 and 1977, declining 10 percent per year after 1977 until returned to 50 percent in 1982
- 159 Airlines, same use of investment credit as #158 for railroads
- 179 Reduces to 5 percent the mandatory payout requirement of private foundations
- 181 Deleted from bill: reduce from 4 percent to
   2 percent excise tax on investment income of
   private foundations
- 183 Charitable organization may bring suit to determine its right to tax exemption as a charity
- 223 Permits lobbying by public charities (other than churches), subject to certain expenditure tests
- 228 Deleted from bill: credit for college tuition -- expenses
- 230 Contributions and benefits under qualified group legal services will be excluded from employees income. Applies for 5 years only - Treasury and Labor to report in 4 years on how it is working

246 Increases to \$35,000 (previously \$20,000) amount of gain elderly taxpayers can exclude from income on sale of principal residence

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Open Issues

39 Child care expense

40 Sick pay

- 49 Legislators travel expenses
- 108 Pre-publication expenses of publishers
- 123 Prohibits state taxation of barges using navigable waters
- 138 IRA made available to persons inadequately covered by an employer plan; possibly extended to participants in a government plan
- 143 Permitting consolidated returns of life insurance companies with non-life companies

187-

208 Estate and gift tax,

229 The \$5 million small issue exemption increased to \$20 million for private hospitals.

Titles I and II LAL and other tax shelter provisions

1 - 30 (open issues)

Title III Minimum and Maximum Tax

31 - 33

## Deleted Items

The following items deleted from the bill significantly improved it:

- 54 Deleted from bill: Extension of expiring investment credit
- 56 Deleted from bill: prohibition of certain ESOP regulations
- 63 Deleted from bill: credit for artist's donation of art works to charity
- 72 Deleted from bill: would have changed and made difficult to administer rules re base company sales income derived from sales of agricultural products not grown in the U.S.
- 103 Deleted from bill: award of costs and attorney fees (max, \$10,000) to taxpayers who win tax litigation
- 114 Deleted from bill: Reversal of IRS ruling on employer reporting of tips income (IRS to defer for 2 yrs enforcement of this ruling)
- 156 Deleted from bill: 10 year amortization of railroad track accounts
- 160 Deleted from bill: 7 percent investment credit for first \$100 of garden tool expenses
- 162-
- 176 Energy-related provisions were deleted from the bill. To be the subject of a separate bill
- 184 Deleted from bill: establishment of alcoholism trust fund
- 185 Deleted from bill: babysitters as independent contractors and not employees of placement agency
- 186 Deleted from bill: private foundation gualifying distributions could include \$200 to miscellaneous civic groups

213 Deleted from bill: tax counseling for the elderly

218-

221 Deleted from bill: International Trade Commission items to be in separate bill

228 Deleted from bill: credit for college tuition - expenses

# Deletion of the following items was unfortunate

181 Deleted from bill: reduce from 4 percent to
2 percent excise tax on investment income of
private foundations

247 Deleted from bill: exemption from tax for certain mutual deposit guarantee funds

MEMORANDUM FOR: SECRETARY SIMON

Walker Cur

From: Charles M. Walker CON Assistant Secretary for Tax Policy

Subject: Tax Reform Act of 1976 (H.R. 10612 -- Conference Action on International Boycotts)

> The Conference Committee this past week adopted an international boycott measure which appears to be significantly less restrictive than the measure contained in the Senate Bill. This memorandum briefly summarizes the Conference measure and attempts to assess in general terms the measure's probable impact. It should be emphasized that this analysis is based upon the general decisions reached by the Conferences on Wednesday and Thursday and upon a preliminary drafting session held Friday morning. We will not be in a position to fully evaluate the Conference measure until it is actually reduced to writing, probably Tuesday or Wednesday, although further drafting may be done Sunday or Monday.

- I. Summary of the Conference Measure
  - A. Prohibited Boycott Practices

The conference measure, like the Senate measure, would extend to three principal types of boycott activity:

- 1. discrimination on the basis of nationality, religion, or race in terms of hiring or selecting employees, managers or directors.
- 2. participation in a "secondary" boycott, i.e., a company agrees to refuse to do business with a specified country.
- 3. participation in a "teritary" boycott, i.e., a company agrees to refuse to do business with other companies which do business with a specified country.

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Form OS-3129 Department of Treasury

It is important to note that the Conference measure carves out several significant exceptions to the list of proscribed practices. First, we understand that the Conference measure will require, as an element of the offense, that a taxpayer both agree to comply with one of the three boycott elements and in fact so comply. Thus, it appears that the measure might not hit a taxpayer who doesn't agree to participate in a boycott but participates anyway or a taxpayer who agrees to participate but does not in fact participate. Second, the term "boycott activity" will not apply where a country prohibits bringing into that country goods produced in a specified second country. Presumably this would allow an Arab country to prohibit the importation of goods produced in Israel. Third, the term "boycott activity" will not apply where a country prohibits the export of products obtained in that country to any specified second country. This provision would appear to allow Saudi Arabia, for example, to specify that oil from Saudi fields not be sold to Israel.

## **B.** Tax Sanctions

The Conference measure denies a taxpayer the benefits of the foreign tax credit, DISC, and deferral with respect to a taxpayer's boycott activity. The Conference deleted the denial of the employee earned income exclusion as a tax sanction. The Senate bill would have denied the various tax benefits with respect to all income from all countries participating in a particular boycott, even if a taxpayer were participating in the boycott in only one country. The Conference measure however, would allow the taxpayer to obtain the various tax benefits attributable to non-boycott activity in boycott countries. For administrative purposes, the Conference measure assumes that, once it is established that a taxpayer has participated in a boycott, other transactions in the same or other countries participating in that boycott are boycott related. The taxpayer, however, is allowed to establish on an activity-by-activity basis that it is not participating in the boycott.

The application of the activity-by-activity concept will determine to a significant extent the actual economic effect of the Conference measure. The discussions at the preliminary drafting session suggest that the statute will be vague in this regard, leaving the administration of the concept largely to Treasury's discretion. The Joint Committee staff appears to have in mind differentiation on a country-by-country basis and along various lines of business. This will probably result in a substantial administrative burden on Treasury. It may also result in a significant easing of the magnitude of the various tax sanctions. The Senate bill did not specify precisely how the actual amount of the denied tax benefits was to be computed. The Conference measure, however, specifically would set forth a proportional test for determining the extent to which tax benefits are to be denied. The Conference approach denies the various tax benefits in accordance with the ratio of the value of the sales or purchases of goods and services arising from boycott activity to the total value of the taxpayer's foreign sales or purchases of goods and services. The Joint Committee staff would like to provide the taxpayer with the option to trace and compute the actual tax benefits attributable to the boycott activity. It is not clear if this option would be acceptable to the Conferees.

#### II. Impact of the Conference Measure

It appears that the Conference international boycott measure would be significantly less restrictive than the Senate measure. The preliminary drafting session suggested that many critical provisions of the measure will be left vague and hence subject to the Treasury's administrative discretion. The critical sections appear to be the following:

### A. Exceptions to Procribed Boycott Practices

The definition of boycott activity would not prevent a country from prohibiting the importation of goods produced in another country, nor preclude a country from preventing the exportation of products obtained in that country to another country. If these exceptions are broadly interpreted, the most significant aspects of the Arab boycott would not result in tax sanctions. The exportation exclusion should be particularly significant with respect to the oil companies.

#### B. Requirement of Both Boycott Agreement and Conduct

If the Conference measure, as drafted, requires both an agreement to participate in a boycott and conduct consistent with that agreement, much of the current boycott activity would not result in tax sanctions if the Arabs are willing to forego the requirement of written agreements. Much of the boycott may be continued through informal understandings. This requirement should also allow transactions to take place without penalty where the Arabs are requiring a written agreement but not enforcing them, <u>i.e.</u>, allowing conduct inconsistent with the boycott.

## C. Activity-by-Activity Differentiation

The activity-by-activity concept ensures that the punishment fits the crime. Where taxpayers participate in the boycott on a selective basis, whether by country to country or whether by product to product, tax benefits will be denied only with respect to the boycott activity. This assumes that the taxpayer will seek to overcome the statutory presumption that any boycott activity taints all transactions in a boycott country. Many taxpayers may be able to overcome the presumption.

# III. Conclusion

The discussion set forth in this memorandum represents our extrapolation of the general decisions reached by the Conference and the thoughts expressed at Friday morning's preliminary drafting session. It should be emphasized that a number of the mitigating features of the measure have been suggested by the Joint Committee staff and may not be acceptable to the Ribicoff forces. The Conference staff plans to have a first draft of the international boycott provisions on Sunday or Monday. We will then be better able to assess the measure's likely impact.

cc: Gerald L. Parsky