INTERNATIONAL COMMODITY AGREEMENTS:

KEY TO DEVELOPMENT?

Approved: May 13, 1976

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Econ. 390"
April 20, 1976.

PREFACE

It is unfortunate that this paper's chapter one, in which the effects of export instability on the poor nations are examined, is forced to rely on a single empirical study. Such is the case, however, and I am consequently indebted to that study's author, the University of Glasgow's Alasdair Macbean. Macbean's examination is exhaustive and casts much doubt on popular arguments decrying export instability.

Another significant contributor to this paper is a former Rand economist, John Pincus. Pincus has examined extensively potential benefits for the poor countries from price fixing, and I am indebted to his work both for helping me find my place in the complex world of commodities and for giving me many valuable insights into commodity agreements.

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INTRODUCTION

It is all too clear that the riches born of the Industrial Revolution have found their way to but few fortunate peoples on planet earth. For the less privileged most of the last two centuries have meant population growth and deprivation, served up with an unsympathetic colonial structure. In recent decades the want has not significantly diminished.

The stifling carapace--colonialism--however, has been sundered. The peoples once trampled underfoot are free to assert themselves upon the world, free to attempt to bridge the income gap between themselves and the nations that once ruled them. In this paper I will explore one avenue by which, it has been suggested, the poor nations could move toward this goal of development. The avenue is international commodity agreements.

The one source of income which nearly all the poor countries share is the sale of primary products. It is claimed, as we will see, that certain alterations in the modes of distribution of these primary products, brought about through commodity agreements, could result in windfalls of several sorts for the poor nations. Whether the claims merit concerted action by these countries is the question I will consider.

It is noteworthy to mention the increasing official acceptance the claims have found. Shortly after World War II the claims were at least acknowledged in the Havana Charter of the abortive International Trade Organization (ITO) The Charter, in Harry G

Johnson's words, "set up rules governing the nature and operating principles of International Commodity Agreements."[1] ITO was never ratified by the U. S., and consequently died, but the ideas behind international commodity agreements remained.

The year 1964 saw an acceptance that was not quite so ephemeral. A United Nations Conference on Trade and Development (hereafter UNCTAD) in Geneva passed the Final Act which made UNCTAD a permanent U. N. organization. Section two of the Final Act endorses the reorganization of primary product markets with international commodity agreements (ICA's).[2] Four years later at New Delhi the endorsement was reiterated by the Secretary-General of UNCTAD, Raul Prebisch. The Argentinian economist proposed using ICA's as one part of a 4-part revamping of the international system.

Unfortunately for Prebisch, UNCTAD has never gained the clout that he had envisioned for it (indeed, one might argue that it has become little more than a caucus of the poor countries). One year after New Delhi, however, calls for ICA's arose from a more persuasive source.

At the invitation of the World Bank (IBRD) Lester Pearson chaired a committee which prepared a report on the world poverty problem. Called Partners in Development, or the Pearson Report, the study iterated even more persuasively Prebisch's contention

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[1] Harry G. Johnson, Economic Policies Toward Less Developed Countries (Washington, D. C.: The Brookings Institute, 1967), p. 138.

[2] John Pincus, Trade, Aid, and Development (N. Y.: McGraw-Hill Book Company, 1967), p. 80.

that world commodity markets might profitably employ commodity agreements.[3]

Which brings us to the present. The claims are extant yet very few commodity agreements exist. Does the interest of the poor nations lie in their working for more? To answer this question I will first enumerate the specific goals which commodity agreements can serve, and attempt to evaluate each goal. I will finish by examining the principal types of commodity agreements, assessing their potential for serving the goals.

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[3]Published by Praeger, 1969.

CHAPTER ONE

THE GOALS

STABILITY

What should be the primary raison d'etre of commodity agreements, according to their promoters, is the stabilization of export receipts of the producer countries.[4] Yet while fluctuations in these receipts probably serve no useful purpose, neither is it intuitively obvious that they are harmful. Thus the task of the promoter who sails this tack is to demonstrate the deleterious consequences of fluctuations on the producer countries. Before I outline the arguments and the evidence on the subject, I must specify the meaning of "stabilization" and the specific variables which might be stabilized.

Variables to be stabilized and the meaning of "stabilization"

I noted above that export receipts are the object of stabilization programs. If indeed foreign trade plays havoc with the domestic economy, then this is as it should be. Yet the normal types of commodity agreements are not able to stabilize export receipts per se. Instead, they work mainly through prices, attempting to attenuate excessive rises and falls. The ultimate

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[4] I shall use the terms "less-developed country" (LDC) and "poor producer country" synonymously in contraposition to "industrialized country" and "developed country." Pincus employs as well the dichotomy between "North" and "South" in the same way. It would serve no useful purpose to specify criteria with which to clearly identify those nations we shall call "developed" and those we shall call "less-developed," or those which are "industrialized" and those which are not, so each of the dichotomies will serve equally well. The nations I am concerned with are simply those which have very low real per capita incomes and limited foreign exchange derived mainly from the sale of primary products.

aim is still the same: stabilization of export receipts.

One may argue that real stability is not present even with stabilized export receipts. Real stability may require that the importing power of exports be stable. When we speak of the relationship between imports and exports, however, we are speaking of the terms of trade, which are dependent on, or determined by, currency prices. An agreement covering any one or even several commodities has no hope of stabilizing for each signatory nation the ratio of the nation's currency to those of its trading partners. Such can only be the task of a thorough reorganization of the international monetary system.

The most that present proposals aim for, then, is stabilization of export receipts through stabilization of prices, and for this reason, stabilization of export receipts is the goal which I will examine in this section.

The word "stabilization" itself has meant different things to different framers of commodity agreements. In this paper I will use the word in a very general sense to mean the reduction of short-term fluctuations from a variable's secular trend, with the standard of success being historical levels of fluctuations of that variable. Such a definition easily embraces even restrictive quota arrangements such as OPEC, for it says nothing about the level of the variable. OPEC has, in effect, drawn its own secular trend. To distinguish OPEC-like stabilization from that which has no effect on the secular trend, I shall refer to the latter as "neutral stabilization."

The question we must ask is, are the poor producer countries hurt by lively short-term fluctuations in their export receipts? For purposes of order I shall break down the arguments into two groups: those focusing on political problems and those focusing on economic problems. I shall consider the economic problems first.

Export Instability and Cyclical Fluctuations

A seemingly well-founded concern about fluctuations is their potential for engendering magnified internal cyclical fluctuations.[5] Following some simple reasoning, suppose a nation experiences a windfall year in its major export. The sudden injection of money into its income stream, if left unchecked, could pave the way for fiery rounds of inflation. Similarly, a sudden downturn in receipts could lead to deflationary pressures.

Ragnar Nurkse was one who accepted the existence of this link between fluctuations in receipts and cyclical fluctuations, and who also accepted the contention that cyclical fluctuations are a stumbling block to development. According to Nurkse, such fluctuations "destroy the sense of continuity" that those responsible for development might otherwise have.[6]

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[5] One of the many who share this concern: Elmer M. Harmon, Commodity Reserve Currency (N. Y.: Columbia University Press, 1959).

[6] Ragnar Nurkse, "Trade Fluctuations and Buffer Policies of Low-income Countries," Kyklos XI, fasc. 2 (1958), p. 143.

In addition to the destruction of continuity, a more direct hindrance to development would seem certain to arise. A country having a bonanza year as far as its major exports are concerned will be sure to feel the pinch of inflation. Domestic buyers consequently will be induced to look abroad for goods they might normally buy domestically, the result being the loss of the possibly valuable effects of the infusion of money into the income stream. Gunnar Myrdal is one who has argued this point, asserting that development in such an inflation-ridden country is likely to be "spotty and cyclical."[7]

When the export fluctuation is downward our previous reasoning led us to believe that deflationary pressures must exert themselves. Yet it is also true that LDC governments have a marked inability, or undesire, to adjust spending to downturns in receipts. Thus inflation could be the result even with a downturn in receipts.[8]

The problems that some poor nations have with inflation are indeed striking. For example, Argentina's consumer prices have doubled about four times since 1964. Yet even this can't match Brazil, where the same 1600 percent rate took place before the end of 1972. Yet, did fluctuations in exports receipts engender these rates? In both countries increases in the money supply

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[7] Gunnar Myrdal, An International Economy (N. Y.: Harper and Brothers, 1956), p. 241.

[8] Myrdal, again, argues this, p. 241.

exceeded the inflation rates.[9] Also, during the same period other poor countries experienced but minor inflation. Jamaica's prices rose 50 percent total, Mexico's rose less, and Honduras actually saw price declines in the latter part of 1973 to go with an inflation rate in the Sixties that averaged less than 3% a year.[10] Are we still to assume that the simple and intuitively obvious reasoning is correct?

It is obvious that a thorough empirical study is needed to test both these simple arguments and more detailed arguments to follow. The University of Glasgow's Alasdair Macbean has attempted to fill this need in his statistical study of the affects of export instability.[11] To be sure, the sweetness of the simple arguments was dominant at first in Macbean's mind: since the demand for primary products depends on the industrialized countries' business cycles, which increasingly are in unison, since this demand can consequently fluctuate wildly, and since the poor nations depend largely on the sale of primary products for their incomes, then the

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[9] International Monetary Fund, International Financial Statistics, XXVI, No. 12 (Washington, D. C.: International Monetary Fund, 1973), p. 35. Also XXVII, no. 12 (1975), p. 47.

[10] Ibid.

[11] Export Instability and Economic Development (Cambridge: Harvard University Press, 1966). It is unfortunate that Macbean's study is the only empirical examination of export instability I could locate. A thorough search of the journals and of bibliographic listings turned up nothing else. The unavailability of corroborating evidence necessarily weakens the conclusions in this chapter.

internal economies of LDC's should be under great strain.[12]

Macbean's first test of this logic is a very general one. Drawing on figures compiled by J. D. Coppock in a book entitled International Economic Instability (N.Y., 1962), Macbean simply seeks to correlate fluctuations in export receipts to fluctuations in internal economies. Table 1 shows both export instability and national income instability indices for 35 LDC nations.[13] Visual comparison seems to show no correlation, and correlation analysis confirms this. For the 35 countries, Macbean finds almost zero correlation between the two variables. For the 15 countries having higher-than-average ratios of trade to income, he finds a slight negative correlation, again standing close to zero.[14]

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[12] Ibid., Chapter 1.

[13] Coppock's figures derive from a complex formula which approximates the average year-to-year percentage variation in export earnings adjusted for a constant percentage trend. The approximation was used instead of the actual percentage method since it was "less laborious and lent itself to machine methods." (p. 23) A 1952 U. N. study, Instability in Export Markets of Under-developed Countries, uses a method which corrects for merely a constant absolute year-to-year change in earnings. Coppock contrasts the two and terms his the more realistic method. The instability index is given by the antilog of the square root of the logarthmic variance of the series which is given by $V\log = \frac{\log x_{t} - \log -m}{N-1}$ where N is the number of years, X is the value of export proceeds, and the subscript indicates the date. m is the arithmetic mean of the differences of the logs of x_t and x_{t-1} x_{t-1} and x_{t-2}, etc.

[14] Macbean, p. 65.

Table 1
Indices of Instability for National Income and Export Proceeds in Thirty-five Underdeveloped Countries

Country	National Income	Export Proceeds
Argentina	8.7	41.3
Belgian Congo (Zaire)	9.1	10.7
Brazil	4.3	13.8
Burma	8.7	14.7
Cambodia	8.5	25.0
Ceylon (Sri Lanka)	9.0	13.0
Chile	12.2	20.2
China (Taiwan)	13.4	16.3
Columbia	53.4	13.4
Costa Rica	1.6	14.3
Cuba	12.2	26.0
Dominican Republic	2.7	16.9
Ecuador	4.1	25.2
Egypt	8.3	20.1
Ghana	6.6	31.9
Greece	14.6	18.2
Guatemala	11.8	10.7
Honduras	4.4	16.1
India	5.7	16.2
Iraq	6.0	27.2
Lebanon	3.7	25.9
Mexico	7.3	11.1
Pakistan	31.0	36.5
Panama	9.6	9.9
Paraguay	21.1	16.0
Peru	14.8	10.0
Philippines	66.8	18.3
Portugal	3.2	15.2
Puerto Rico	6.0	9.2
Rhodesia-Nyasaland	8.3	12.5
Thailand	13.0	36.6
Turkey	11.0	19.4
Union of South Africa	4.8	10.3
Venezuela	4.1	16.1
Yugoslavia	8.9	46.1

Source: Macbean, p. 64.

In two swoops, our theory seems to have had its surface plausibility severely damaged. A reader might recoil in shock and retreat to more theory to absolve the other theory of its shortcomings. Macbean is prepared. Suppose we compare the direction of fluctuation of GNP with that of export earnings. Might there not be a high degree of correlation, especially among those countries that had very high ratios of trade to GNP? Macbean shows that this need not be so.

Table 2

Direction of Fluctuation in Export Proceeds and GNP for Underdeveloped Countries and Average Ratios of Trade to GNP (1950-60)

Country	Ratio Trade/GNP percent	Current GNP Same	Current GNP Total	GNP lagged one year Same	GNP lagged one year Total
Burma	51	8	10	7	9
Ceylon (Sri Lanka)	72	7	10	5	9
Congo (Zaire)	99	6	8	5	7
Costa Rica	57	3	10	5	9
Cuba	70	6	8	4	7
Cypres	108	4	7	4	6
Honduras	48	4	8	3	7
Panama	95	7	10	2	9
Peru	50	5	8	2	8
Rhodesia-Nyasaland	121	5	10	3	9
Venezuela	85	6	10	5	9
Combined result		61	99	45	89

Best mixed score: 63 out of 97.

Source: Macbean, p. 65.

He takes eleven countries with very high ratios of trade to GNP and for the period 1950-1960 (in the years information was

available) tallies the number of times each country's GNP moved in the same direction as its export receipts, both figures adjusted for trend. Also, figuring that some countries may respond more slowly than others, he looks as well at the year following the year of change in export receipts, and if GNP in that year moved in the same direction as the exports in the preceeding year he tallies a mark if he had not already. As Table 2 shows, of 97 country-years, 63 showed both movements in the same direction. The result is a relationship only slightly higher than "could be expected to arise from sheer chance."[15] And since these countries were chosen for their high trade-to-income ratios, the average LDC should show little correlation between the two variables.

Macbean's findings thus cast a deep shadow of doubt upon the belief that export instability is a cause of internal instability. What if we take the most extreme case of all, that of a precipitous downturn in export proceeds in countries having, again, high ratios of trade to income? Macbean takes the same group of countries and selects 13 country-years when exports fell most sharply. Adjusting crudely for trend by substracting from each country-year's changes in GNP and Exports the average annual increase in each, he calculates for each the ratio of the change in GNP to change in exports.

We see in Table 3 that changes in GNP at least move in the same direction as those in exports, but the effects of these most precipitous of downturns are surprisingly mild.

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[15] Macbean, p. 65.

Table 3

Ratios of Changes in GNP to Changes in Export Earnings During Sharp Declines in Eleven Underdeveloped Countries

Country	Period	Change in GNP / Change in Exp.
Burma	1957-8	1.20
Ceylon (Sri Lanka)	1951-2	1.25
	1955-6	2.62
Congo (Zaire)	1952-3	.48
	1957-9	1.09
Costa Rica	1954-6	0
Cuba	1951-4	1.51
Cypres	1956-7	-0.51
Honduras	1953-4	0.92
Panama	1957-8	0.56
Peru	1951-3	-0.44
Rhodesia-Nyasaland	1956-8	.74
Venezuela	1957-60	.26

Source: Macbean, p. 67.

To complete the picture, Macbean examines the stability of cost-of-living indices. His study once more fails to find significant correlation. First, he compares instability indices of cost of living and export instability for a cross section of 21 LDC.[16] The result? A "clearly non-significant correlation."[17] Second, a directional test analagous to those described above yields results which could easily arise by chance.[18] There simply seems to be no relation between price stability and export instability

[16] Macbean, p. 76. Data is from IFS (1962)

[17] Ibid. He uses Spearmans Coefficient of rank correlation: -.21.

[18] Ibid., p. 27: 84/168 current, 70/147 lagged.

(the conjecture about prices moving steadily upward I will bring up later).

Leaving prices behind us, one could argue more specifically than we have so far and reason that export instability affects the pattern of capital formation within a country. It seems logical to assume that as export receipts go so goes domestic investment, for it is the receipts which are the source of investment. A good part of the investment in LDC's is in the form of capital equipment imported from other countries. In a year of low export receipts, imports of capital equipment would seemingly be bound to suffer, for there simply wouldn't be enough foreign exchange to maintain previous import levels. Rashar Nurkse for one, and the 1961 Crawford Report for another accept this line of argument.[19]

Macbean undertakes two tests of this hypothesis. First, he takes a broad cross-section of LDC's and attempts to correlate fluctuations in gross domestic fixed capital formation with fluctuations in the importing power of merchandise exports (going beyond money receipts). The resulting correlation coefficient is not significant "at even the 10 per cent level of significance," and the relationship, he says, must "be regarded as 'not proven'."

His second test concerns the direction of changes in investment. First he tries to correlate direction of export changes with that of capital goods imports. Allowing either current year

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[19] Nurkse, p. 143, and United Nations, International Compensation for Fluctuations in Commodity Trade (N. Y.: U. N. Dept. of Economic Affairs, 1961), pp. 11-12.

Table 4

Changes of Gross Fixed Capital Formation in Same Direction As Capital Goods Imports

Country	Current	Capital Formation Lagged One Year
Argentina	6 out of 8	4 out of 8
Brazil	2 " " 4	3 " " 5
Chile	3 " " 8	7 " " 10
Columbia	7 " " 9	5 " " 8
Cuba	5 " " 6	2 " " 5
Mexico	4 " " 6	2 " " 7
Peru	5 " " 8	4 " " 8
Venezuela	4 " " 8	4 " " 9
Pooled Results	36 " " 57	31 " " 60

Source: Macbean, p. 73.

or one-year-lagged results to count, he finds that 75 of 94 country-years show the 2 changes in the same direction. This is significant at the .001 level.[20] Next he attempts to go a step further and correlate direction of change in capital goods imports with that of gross fixed capital formation. As Table 4 shows, the relationship is weak at best. It may be that exports do have an influence on investment, but it cannot be a powerful one. This conclusion is reinforced by the fact that of the eight countries for which Macbean had appropriate data, only three showed statistically significant correlation between degree of fluctuation in export receipts and that of fixed capital formation, even when the data--current year or one-year-lagged--which yielded the highest coefficient was used.[21]

[20] Macbean, p. 72

[21] Ibid., p. 73.

These results are anything but conclusive, that they serve to point up the weakness of the a priori position. The data are often unreliable for LDC's, and Macbean's data are sketchy and incomplete. Yet there is more reason to place one's faith in the nonexistence of the link between export instability and investment instability than in the link's existence.

The empirical tests described so far have not shown that export fluctuations magnify internal fluctuations. It is impossible, however, to state the strong conclusion--that export fluctuations do not magnify internal fluctuations--on the basis of one empirical study. At least, though, arguments purporting to demonstrate the opposite must be viewed with some skepticism.

I should now suggest some reasons for Macbean's surprising findings. First of all, instability is expected and allowed for by large companies exporting primary products. They build up stocks when demand is slack, and sell from stocks when demand is high. Payments to production factors probably will be steady, as will payments to governments. In the last decade the world has witnessed the decline of the multinational company's involvement in primary products and the consequent rise of government involvement. The arguments apply even better to the latter than to the former.

For an economy characterized by many private and domestically-owned firms there are other reasons why the consequences of export instability will be blunted. First, the owners of such firms (plantations?) have very little propensity to consume domestically,

nor propensity to invest domestically (save housing), resulting in extremely large leakages whenever their income rises or falls. Second, it has been pointed out that the different sectors within an LDC economy are much less interdependent than the sectors within an industrialized country's economy. Repercussions of changes in income in one sector will be slight in other sectors.

These two characteristics of LDC economies, coupled with the fact that government taxes in most LDC's rise and fall as exports rise and fall, while spending is usually stable, means that the macroeconomist's favorite explanatory plaything--the multiplier--is likely to be very low.[22] Thus export instability can but slightly magnify internal fluctuations.

Export Fluctuations and Levels of Investment

Another popular line of argument about export instability is that such instability breeds uncertainty in investors, which in turn reduces absolute levels of investment. This is not to say that investment fluctuates, and has malignant effects because of these fluctuations, but that levels of investment will be lower in countries where exports are unstable.[23]

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[22] One who has argued that the multiplier is very low is Higgins, op. cit., p. 550. Macbean believes this as well.

[23] Two have used this argument: Harmon, pp. 39-40, and President's Materials Policy Commission, Resources for Freedom, Vol. I: Foundations for Growth and Security (Washington, D.C.: U. S. Government Printing Office, 1952), p. 83.

After all, why would a potential investor choose to invest in a country marked by serious export instability? Would he not prefer a more stable climate? In the opinion of the Paley Commission he would be "nervous" about investing in an unstable climate, and consequently less disposed toward doing that.[24]

A slightly different explanation of the same result comes from Nurkse. Radical fluctuations can instill in investors in LDC's a "get rich quick" attitude born of the knowledge that a fortune can be won or lost overnight. The consequence is that investors are less inclined to undertake large capital projects, preferring instead a greater degree of liquidity, with the overall result being smaller totals of investment.[25]

Aggravating the reduced investment levels is the probability that the efficiency of investment is also lessened by export fluctuations. Low prices can cause shutdown of plants, mines, etc., during which time labor may drift away and capital may be allowed to deteriorate. Consider the Leadville District in Colorado. Slack demand forced the shutdown of these lead mines in 1937, after which time they became flooded. World War II demand called for the reopening of the mines, which was only possible with an expenditure of several million dollars of federal money. The implication? Had demand been stable all along, the District would have remained open and the money would have been saved.[26]

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[24] President's Materials Policy Commission, p. 83.

[25] Nurkse, p. 143.

[26] President's Materials Policy Commission, p. 83.

It seems possible, as well, that agricultural efficiency could suffer if exports were highly unstable. A farmer desirous of protecting himself from a sharp decline in the price of any one crop might wish to plant a large variety of crops despite the fact that he could be more productive concentrating on just a few. For manufacturing and mining, the Angell Report states that "variations in demand, especially for minerals, require the installation and maintenance of capacity sufficient to meet the peak demand; a steadier output would reduce capital charges."[27]

A more indirect path that export instability could take to hinder investment is through inflation. Although empirical evidence has shown us that instability of prices is probably unconnected to that of exports, it has not yet said anything about the price level. Recall that it was Myrdal's contention that this level pushes inexorably upward, that LDC's are plagued by inflation engendered by export instability.

If export instability is to hinder investment through inflation, then, obviously, it first must be linked with inflation. Macbean actually finds evidence that such a link exists (much to Myrdal's delight we can be sure). In a simple correlation analysis between indices of instability in importing power of exports and averages of year-to-year changes in cost-of-living indices (data

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[27]United Nations Economic and Social Council, Measures for International Economic Stability (N. Y.: U. N. Dept. of Economic Affairs, 1951), p. 18.

are in table 5), Macbean finds a coefficient of .5, which is significant at the .01 level.[28]

Though this doesn't really tell us whether export instability is a fundamental cause of inflation or merely an ancillary cause, there does seem to be evidence that Myrdal's hypothesized link exists. If the link is indeed present, then on average those countries with the most export instability should have the highest inflation rates.

It can be argued that inflation hinders investment in two ways.[29] First, it induces savers to shift their assets from financial assets toward physical assets. Savers prefer assets that are likely to rise in value at least as fast as the value of money falls. They see a great risk of capital loss in financial assets, so they turn to the purchase of physical stocks of goods. Such a shift dries up part of a nation's savings which would otherwise be available for productive investment, and thereby lowers effective investment.

The consequences of this effect could be bolstered by a concommitant overinvestment in construction. Investors could expect

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[28] Macbean, p. 117. The ex-British colonies of Malaya, Ghana, and Ceylon (Sri Lanka) were left out because their governments were prevented from "adopting inflationary policies," in Macbean's words, under the currency board system which governed their economies.

[29] See, for example, A. S. Shaalan, "The Impact of Inflation on the Composition of Domestic Investment," International Monetary Fund Staff Papers, Vol. 9 (July, 1962), p. 246.

Table 5
Variables for Statistical Analysis

	1	2	3	4	5	6	7	8
Argentina	11.8	2	1.7	22	31	12.9	-0.5	61
Bolivia	11.2	6						
Brazil	8.1	2	4.8	14	20	2.9	6.2	72
Burma	9.6	15	5.6	17	0	3.0	10.2	74
Ceylon (Sri Lanka)	7.9	5	9.0	10	0	3.6	5.8	52
Chile	8.8	3	2.4	10	40	4.2	1.6	64
Colombia	8.8	9	5.2	22	7	4.2	7.6	
Congo (Zaire)	6.9	9					6.6	
Costa Rica	7.5				1			
Cuba	7.3	11	2.2	15	-2	6.8	1.5	
Dominican Republic	7.2				0			
Ecuador	9.7	9	5.1	12	2	2.4	14.4	50
Egypt	16.8		3.3	12	-1	3.6		
El Salvador	6.8				1			
Finland	11.0				4			
Ghana	10.3	10	3.8	12	1	3.2		65
Greece	6.7		6.9	15		2.2		71
Guatemala	6.9	8	4.9	10	1	2.0		
Honduras	7.8				1			
Iceland	7.6				4			
India	5.0	13		7	3	2.1		
Indonesia	10.3				12			
Iraq	9.0	29	11.1	14		1.3		
Israel	7.5	3	9.9	17		1.7		74
Malaya	19.8				-2			
Mexico	7.7	6	5.5	15	8	2.7	13.7	
Morocco	3.2	-9						
Nicaragua	8.5				5			
Peru	6.6	7	4.3	20	7	4.7	8.4	
Philippines	7.6	9	6.7	7	1	1.0	13.1	60
Portugal	6.5	6	3.9	15	1	3.8	6.9	69
Rhodesia-Nyasaland	8.7	9	7.0	31		4.4	4.7	
South Africa	5.4	4	5.1	21		4.1		58
Sudan	5.9				1			
Thailand	5.9	7	5.0	14	5	2.8	11.2	
Turkey	8.4	16	7.8	12		1.5		
Uruguay	14.4				17			
Venezuela	3.6	10	10.3	22	0	2.1	6.5	

1-export fluctuation index. 2-annual rate of fixed capital formation. 3-annual rate of growth of GDP. 4-capital formulation as a percentage of GDP. 5-annual percentage rise in cost of living. 6-average incremental capital/output ratio. 7-ratio of investment in stocks to gross capital formation. 8-ratio of construction to capital formation.

Source: Macbean, pp. 118-119.

such tremendous price hikes in building materials and finished buildings that they would tend to invest disproportionately large amounts in this area, lowering the productivity of both this investment and the entire investment structure.

If all these popular arguments that I have outlined are valid, then empirical evidence should demonstrate that both the efficiency and the level of investment are diminished by export fluctuations. In fact Macbean's study does not show this.

As a first step, Macbean tests two hypotheses. First, he carries out a correlation analysis on indices of fluctuation in the importing power of merchandise exports and the ratio of investment to income (table 5). The correlation coefficient resulting is .05, which not only is non-significant, but has the wrong sign.[30] Next he tests the relationship between the same export instability index and the rate of fixed capital formation. This time the data actually support the opposite contention: the coefficient is positive and significant at the .05 level.[31] I see no point in arguing to affirm that such a surprising relationship exists, but the hypothesized relationship must be considered unproved.

There consequently seems to be no empirical evidence supporting the view that export instability lowers levels of investment. The arguments about efficiency fare better, but only slightly so. To measure the efficiency of a nation's investment, Macbean computes

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[30] Macbean, p. 109.

[31] Ibid.

the average of its yearly incremental capital-output ratio (the lower the ratio, the higher the efficiency). His available data cover the years 1950-58 for 24 countries (table 5). A simple correlation analysis on this variable and export instability indices yields a coefficient of .425, "which is just barely significant at the .05 level."[32]

It would appear that empirical evidence in this instance corroborates the theory. Unfortunately the empirical significance hinges on the capital-output ratio of one country--Argentina. Argentina, according to Macbean, had embarked at the time on a "deliberate policy to build up industry at the expense of agriculture."[33] High incremental capital-output ratios are to be expected in the early years of such a policy. Without Argentina's contribution, the correlation test yields a coefficient quite insignificant.[34]

While a strong repudiation of the theory is not in order on the basis of these somewhat weak findings, it is at least evident that the theory is insufficient. To drive that point home, Macbean tests additionally the hypothesized consequences of inflation.

Recognizing the possibility that export instability working without the intermediate step of inflation might provoke investment

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[32] Macbean, p. 122.

[33] Ibid.

[34] Ibid. The coefficient as I compute it is -.09, which is not only in the wrong direction, but insignificant at the .05 level.

in stocks, Macbean sets up a multiple regression analysis using both inflation and export instability as independent variables. The regression plane produced explains less than 20% of the variation among the stock-investment ratios (Table 5) of the countries, and although an inverse relationship between that and inflation is slightly suggested, neither partial correlation coefficient is significant at the .05 level.[35] The second putative consequence is refuted as well. Disregarding whether abnormally high levels of construction hinder growth, Macbean simply sets out to discover whether in fact inflation does produce a skewed investment pattern characterized by such construction levels. A similar multiple regression test yields him similar results. The two independent variables together explain only 23% of the variation in the ratio of construction to total investment (Table 5), and in Macbean's words, "Neither export instability nor inflation appears to be significantly related to construction as a proportion of investment."[36]

Unfortunately, however, the data were available for only twelve countries, which makes the results somewhat less than convincing. But I believe Macbean's figures must surely cast doubt on the validity of the theory.

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[35] Macbean, p. 120. The equation: $Y = 8.4 + .0082\ X, -.1408_{X2}$. $R^2 = .198$. X_1 = fluctuation index in the importing power of exports; X^2 = rate of inflation.

[36] Ibid., p. 122. The equation: $Y = -.35 + .4457\ X_1 + .0528_{X2}$. $R^2 = .2415$.

We have examined so far several of the ways in which export instability was and is thought to be deleterious to the domestic economy, and we have used Alasdair Macbean's study to show that most of the arguments are at best incomplete. A result that should be expected from all this is that the rate of a country's development does not depend on the stability of its export receipts. In a very limited attempt to check this relationship, Macbean measures (as a sort of coup de grace) the effect of instability on growth of domestic product (Table 5). Simple correlation analysis yields a coefficient far from significant at the .05 level. Further, the coefficient of determination (r^2) explains but eight percent of the variation in growth rates.[37]

In light of Macbean's findings some writers have seen fit to condemn export instability in a different sort of way. A problem which every producer faces is the threat that demand for his product will be undermined by others' creation of synthetics or otherwise better and cheaper products. To a poor country that depends heavily on the sale of one or two products, the development of a substitute for one of these goods can be disastrous. Johnson speculates that the attention which prices temporarily above trend

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[37] Macbean, p. 123. $r = .29$, therefore $r^2 = .08$. Macbean says that only .5 percent of the variation was explained by r^2. I presume his statement was result of oversight.

call to themselves can stimulate the development of substitutes. It would seem, then, that producers would have an interest in maintaining prices at the trend level so as to stifle this attention.[38] Hans Singer agrees with Johnson, and notes in addition that industries producing synthetics are not likely to die out when prices fall to normal.[39]

In a sense this argument is refuted by Macbean's last correlation test. If development depends at least in part on export receipts, then those nations with the most unstable receipts should show stunted development. In fact this was not what the test showed. Of course to adequately test Johnson's hypothesis a much more sophisticated test covering perhaps several decades is mandatory. But Macbean's findings are a hint at least.

While Johnson's hypothesis may not fall directly beneath Macbean's sword, it does fall prey to reasoning. What Johnson is attempting to explain really, is technological change. Incentives for such change should strengthen only marginally with short-term price rises, for, presumably, at a broad range of prices a cheap substitute could be produced and sold profitably--and destructively for the producer being pushed aside. Moreover, would not the putative incentive work in both directions? That is, would not temporary price decreases reduce incentives to develop substitutes, and in the

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[38] Johnson, p. 145.

[39] Hans Singer, International Development: Growth and Change (N.Y.: McGraw-Hill Book Co., 1964), p. 178.

process even the score? In addition to these rebuttals, one might argue that research and development is a fairly long-term process; it cannot be turned on and off in response to short-term fluctuations in price.

Export Instability and Domestic Political Stability

I must mention now the political arguments against instability. Some economists, such as Elmer Harmon, insist that fluctuations in export earnings place an unnecessary and undeserved burden on producers.[40] Workers in a very poor country who suddenly find themselves jobless can expect little relief from a government that probably can't even care for those who never hold jobs. A result? Inevitable lessening of political stability. And since political instability must be a hindrance to steady economic growth, commodity agreements should be used to remove the root cause.[41]

The brunt of this argument, then, is that poor nations should organize their commodity markets to, in effect, buy the stability necessary to maintain the status quo. From a U. S. point of view such an argument might have merit, but from the poor country viewpoint I find it spurious.

A government may indeed be able to buy some internal stability with such means, but the link between stability and welfare is

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[40] Harmon, p. 2.

[41] See for example, Presidents Materials Policy Commission, p. 84.

unclear. If we accept Myrdal's thesis that what the poor nations need are highly centralized and strong governments able to bring about high levels of national savings and able to control their citizenry with such things as birth control programs,[42] then a government which lacked such power but which artificially maintained enough stability to keep itself in power would not be acting in the interest of the nation.

After hearing Macbean one might even wish to argue, in counterpoint to Harmon, that a government which couldn't keep its domestic economy fairly well isolated from the effects of its trade fluctuations was doing a poor job of government. Protection of such a government with ICA's could amount to an institutionalization of a government not in its nation's interest. Even if such an argument is a bit extreme, it at least points up the spuriousness of Harmon's argument.

Can we say, then, that political stability is never a suitable goal for a commodity agreement? Of course not. But establishing that the problem truly lay with export fluctuations and not with corrigible government policies would be difficult. Macbean has shown us that even for those countries with the highest ratios of trade to income and with the greatest indices of fluctuation in exports the link with the domestic economy is tenuous at best. The burden of proof must fall on the countries claiming to be

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[42] See for example, Rich Lands and Poor (N.Y.: Harper & Brothers, 1957) and An Asian Drama (N.Y.: Pantheon Books, 1968).

injured, so that they might establish that their government policies were not to blame.

If indeed the external economy does make stability in the internal economy difficult to maintain, and if the internal instability does precipitate political unrest, then the arguments would wield some force. Indeed, Johnson points to political stability as one of the four prerequisites of economic growth.[43]

A second political argument is closely allied to the first. It is argued that instability hinders long range planning capabilities of governments. ICA's could bolster this capability by ensuring importing capacity. We are aware that government receipts do fluctuate with export receipts either through changes in taxes on private companies or in revenues from nationally owned companies. Yet there seems to be, again, no reason why a government could not plan for fluctuations. Others have come to the same conclusion. As Johnson puts it, "national governments should be able to avoid the difficulties of fluctuations by basing their domestic and development policies on the normal or trend values of export prices or earnings, offsetting fluctuations around these values."[44] He concludes that stabilization proposals are really proposals to relieve weak governments.

One may find this logic harsh, but I believe it hits much closer to the mark than that which it refutes. Inability to adjust

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[43] Johnson, pp. 44-45.

[44] Johnson, p. 141.

long-range planning to trends could be, purely and simply, symptomatic of a weakness which could poison the machinery of development. Again, though, one of those few instances of instability's being simply too severe to control could arise, and a commodity agreement might be worth its cost. That such situations exist, however, is doubtful.

Conclusion

In summation I need to make several points. First, whatever merits the economic arguments condemning export instability may have, they have not yet been demonstrated empirically. In fact, available empirical evidence refuted almost every such argument. Second, it should be obvious that new research is needed to settle the discrepancy. Macbean's study is exhaustive but suffers at times from a lack of reliable data. Moreover, it leaves some stones unturned, such as other potential consequences of the inflation that his studies showed was a product of export instability. Third, the political arguments such as Harmon's seem invalid in all but the most rare circumstances. Finally, considering these results it seems unlikely that widespread use of commodity agreements to stabilize markets would be very productive.

RAISING LEVELS OF EXPORT RECEIPTS

When UNCTAD met in 1964, it offered the world a theoretical critique of the existing system of international economic relations. The major idea it presented was that satisfactory rates of growth in the underdeveloped countries are contingent upon the ability to dispose of more foreign exchange.[45] Such pleasingly simple logic; indeed, this idea has nearly been gospel to the post-war mind. Yet where are the results of post-war aid? Why have the poor gotten poorer? I wish to examine briefly in this section the link between foreign exchange levels and development.

The question I must consider is a simple one. Other things being equal, must a nation which is able to augment its export receipts be better off than one which cannot? The answer, I believe, is no.

After Leaster Pearson's Partners in Progress was published in 1969, Columbia University called a Conference on International Economic Development to respond to the report.[46] Pearson had recommended inter alia increased levels of aid monies flowing from North to South. The arguments of a minority of those at the conference exemplify the reasoning which brought me to the above conclusion.[47]

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[45] Pincus, p. 77.

[46] Barbara Ward, et al., eds., The Widening Gap; Development in the 1970's (N.Y.: Columbia University Press, 1971).

[47] I equate in this Section voluntary North aid and augmented export receipts resulting from commodity agreements (cartels if you please). To my arguments of this section, the difference is of no importance.

The minority felt that aid was definitely not the answer to the woes of the underdeveloped country.[48] Money flowing into a country is only one factor in that country's development, and except (we presume) in the case of huge increases in receipts, not the major one. More important are political factors, the disposition of governments toward modernization and toward conscious policies of developing the welfare of their peoples, and the power to carry out their objectives.

Aid and political trends may work at cross purposes. A giver of aid must be aware of the many determinants of development. Aid to a government more inclined to send even its lowest ranking officials to the Riviera each year than to build factories could be doing more damage than good for the government's citizenry by solidifying the government's power. The difficulty comes in setting standards to determine which countries are worthy of aid monies. The source of arguments about aid potential is the same as that of arguments concerning the strictness of the standards. It is a matter of degree: many feel that aid is warranted to all but a few special countries (such as Uganda), while the minority at the Columbia conference felt that aid is rarely warranted, that the products of aid are most likely political vulnerability, dependence, and, consequently, retarded development.[49]

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[48] Ward, p. 276.

[49] Ward, pp. 276-277.

Lending credence to the minority's conclusions are the opinions of such respected economists as Benjamin Higgins. Higgins terms results of post WW II aid "disappointing," reasoning that the poor countries are unable to "absorb capital effectively" because of "shortages of skills both in technical and scientific activities, and in everyday application of manpower in the productive process." Huge capital inflows are simply wasted.[50]

Whether the poor countries have been hurt by the post-war aid is a matter of conjecture. Governments might have become more efficient and might have secured more efficient use of capital inflows. The point need not be argued, though, for it is enough to realize that aid has shown few tangible results, and to recognize that possibilities for damage do exist.

These arguments are essentially the same as those used in the last section to show that an ICA which improves a country's internal stability may or may not be in the interest of the country's people, and probably is not. Carried to the end, the logic may shock us. No matter how destitute and ragged a nation's populace may be, the giving of aid which helps preserve for them a government unable to do anything about their poverty may be an action not in the people's interest.

I reiterate: exports receipts are but one factor in a nation's

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[50] Benjamin Higgins. Economic Development (N.Y.: W. W. Norton & Company, Inc., 1968), p. 585.

development. It is not necessary to take the extreme line of the minority at the Columbia Conference to accept the conclusion. We should simply be aware that a commodity agreement which has real possibilities of raising levels of export receipts may not be in its member nations' interest although this has been presumed without question in much of the literature.

Myrdal, as I've mentioned before, is one who has not accepted the standard line. Though some have called him cruel for his views, he accepts what he sees: that development must come mainly from the inside in the form of programs such as population control plans, and that aid from the North may not only be noneffectual, but may actually be a hindrance to real development.[51] Hla Myint has come to a similar conclusion from a rather different position. Myint holds that Northern aid levels could never be high enough for speedy development, and that "the underdeveloped countries will have to pay for the large part of the cost of their economic plans."[52] Since they have to have effective governmental machinery to collect national savings sufficient to do this, North aid which sustains incompetent governments would be harmful.

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[51]Gunnar Myrdal, The Challenge of World Poverty (N.Y.: Pantheon Books, 1970), p. vii.

[52]H. Myint, "The Classical Theory' of International Trade and the Underdeveloped Countries." Economic Journal, vol. 68 (June, 1958), p. 336.

I have one more point--an ancillary one--to make. Since, as we will see, the effective operation of conceivable commodity agreements, especially those which raise prices, is dependent upon the cooperation of the North, and since the North obviously holds the reins of aid supplies, it is a hard reality that it is up to the North to determine whose interests are served by a proposed commodity agreement or aid plan. Unfortunately for the poor peoples of the world, the interests of the poor nations and the interests of the rich may not coincide.

For example, the World Bank, whose president is Robert McNamara, had, according to Hobart Rowen of the Washington Post, "a cold shoulder" to the Allende government in Chile. Now that Chile has been given back a government that the British label "uncivilized," the bank has approved a $33 million copper development loan for the country. It just so happens that the present Chilean government, as Robert McNamara knows well, does not harbor the brand of anti-Americanism that Allende was known (assassinated?) for.[53] Stumbling blocks in the path of development are many.

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[53] Washington Post, Feb. 2, 1976.

TOWARD INTEGRATION

As a speculative venture, one more argument for ICA's from the poor country viewpoint could be made. This argument depends not on the premise that some immediate beneficial results will occur, but on the premise that ICA's will set in motion a chain of events leading to beneficial results for LDC's.

In the present scheme of economic relations each underdeveloped nation operates largely on her own. She plans not with other countries, but against them. That is, when she is planning policy vis-a-vis another LDC, she most likely doesn't consider how total benefits of the two countries together could be maximized, but how her own could be maximized. Potential waste is significant. What could prevent the waste is some form of economic integration. My argument is that LDC's could benefit from ICA's insofar as these agreements set in motion the processes leading to economic integration.

As a worthwhile examination of economic integration is beyond the scope of this paper, I will not demonstrate how LDC's could show gains in efficiency and production through some form of integration. I can only parrot the conclusions of others: that indeed LDC's are likely to increase their total output and improve efficiency through integration.[54]

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[54] See for example Charles P. Kindleberger, Economic Development (N.Y.: McGraw-Hill Book Co., Inc., 1958), Chpt. 16, and Higgins, p. 554. Even the most skeptical could not claim that currency areas and trade areas are currently optimum in size and shape.

There might also be results from integration beyond the simple production improvements. Production improvements are the upshot of improved internal relations within the group integrating. More desirable external relations are possible as well. What I am thinking of is power, the power that results from unity. In Myrdal's words, "By joining hands and pooling what they have of bargaining power, the underdeveloped countries can together gain for themselves consideration which they could not have gotten individually."[55]

The importance of this external political element should not be slighted. We have witnessed since the turn of the century a growing gap not only in per capita income between North and South but in national income as well. Why is this so?

Myrdal argues that "the play of market forces works toward inequality." Once a region has gained status as an "industrial center," the market tends both to perpetuate its prosperity and to prevent other regions from gaining that prosperity. Myrdal offers as explication several factors, some normally taken in to account by economic theorists, some not.[56]

Flows of capital orient themselves toward the industrial center where because of the prosperity bred by expansion, there is a demand for them. Trade operates with such a bias as well.

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[55]Myrdal, Rich Lands and Poor, p. 70.

[56]Ibid., p. 26.

Industries in an established center nave such tremendous competitive advantages over inchoate industries in regions outside the center that they can be pretty sure that the newcomers will not grow to maturity.[57]

Noneconomic factors help assure that regions long unindustrialized will remain so. A region without the income deriving from industry can hardly afford to maintain the social capital--roads, utilities, etc.--necessary to insure the efficient use of capital for manufacture. Likewise, medical care is likely to suffer, as are other public services. The result is a populace unconducive to industrialization.[58]

We need only to look at the world today to see the merit in Myrdal's arguments. Unindustrialized nations are caught in a vicious trap: they are unable to provide vital services and education to their population without industrialization's wealth, yet they can't industrialize both because of various economic biases against them but also for the very condition of their populations.

I have spoken twice of the signal importance of government in the path of LDC development. Even if poor nations had highly integrated and enlightened governments, however, they would still probably be bound to their want because of the various biases working against them.

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[57] Ibid., p. 28.

[58] Myrdal, Rich Lands and Poor, p. 30.

I must take Myrdal's stance and say that economic integration is a means to enhance the results of the governmental task. Myrdal himself points to augmented bargaining power as the key. A bloc of LDC's could more forcefully demand help from the North in creating social capital and in setting up viable industries. While I believe that this is primary, I must add that without the integration the benefits of increased capital would be as we have seen in the Sixties--nil. More efficient use must be made of construction of social capital, and more importantly, governments must be given the incentive to use all means to orient their populations toward industrialization. Integration is a possible means toward this end.

As I implied in the first sentence of this section, it is a highly speculative venture to assert that ICA's could lead to integration. The road to centralization of authority is long, hard, and tortuous, and exactly what induces men to embark on this road is a matter for political theorists.

Several things are clear, however. First, perceptions play an important role in politics. Whether a commodity agreement actually produces immediate benefits may be less important than the mere fact that the agreement exists, that representatives of many countries are able to meet in peace. Such a perception could perhaps instill the confidence and the temerity in LDC leaders to make them push for real integration.

If a commodity agreement can indeed be a cynosure, then

its failure to satisfy the goals of stability or price raising, or the failure of the satisfaction of these two goals to contribute to welfare of the signatory nations, would be mitigated. That a commodity can indeed serve as a guiding light from afar is unclear.

Another possible connection between ICA's and integration is the possibility that agreements born of simplicity could gradually evolve into more complex and more all-encompassing instruments. Countries initially employing easily-administered price stabilization programs could be tempted to try out more complicated pacts--such as the compensatory finance agreements popular in the literature.[59] Though such agreements have no immediate connection to the most feasible type of economic integration--regional integration--intertwinings of these pacts could be but a step away.

If the link actually exists, commodity agreements could be extremely valuable. I can only assert with a bit of speculation that it does actually exist.

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[59] See for example U. N. (1961).

CONCLUSION

We have seen that those who argue for commodity agreements by decrying the baneful effects of instability are for the most part arguing without empirical corroboration. Export fluctuations haven't yet been shown to injure the internal economy. One might be pardoned, however, for believing that especially turbulent conditions would have some distasteful consequences, especially in a highly trade-dependent country.

Concerning raising levels of export receipts, we have seen that the presumably automatic benefits of higher levels need not materialize; determinants of development are manifold. As a practical matter, however, any government which can raise its country's level of export receipts without worsening significantly its foreign relations would be acting irrationally by not doing so.

All in all, satisfaction of the above two goals seems likely to be of limited value. Considered in the light of the third goal, however, the first two goals become palatable. Agreements entail costs, as we will see, but--if our speculation hits the mark--these costs could be offset by later benefits of economic integration.

CHAPTER TWO

THE AGREEMENTS

INTRODUCTION

In this chapter I will examine the four principal types of commodity agreements: bilateral contracts, multilateral contracts, quotas, and buffer stocks. The first two and the last are tools of neutral stabilization, bilateral contracts being very local in effect and buffer stocks and multilateral contracts being more general. Quotas may be tools of either neutral stabilization or of price raising, and may be used in conjunction with buffer stocks.

THE BILATERAL CONTRACT

The simplest kind of commodity agreement is the bilateral contract. Such a contract is struck between one importer and one exporter of a specific commodity and either sets the quantity to be delivered and the price to be paid in each period of the contract's duration or provides guarantees of minimum purchase at a specified floor price on one side and minimum supply at a specified ceiling price on the other in any period. Classic examples of bilateral contracts are the long-term agreements between the UK and some of her principle suppliers. For example, Britain has long maintained a sugar preference system in which she guarantees certain exporters a market.[1] For the UK, the benefits seem fairly evident: she is assured a raw materials supply, and encourages the maintenance or (she hopes) expansion of production levels.[2] The benefits of such agreements for the poor suppliers are not so evident.

There is, of course, stability. If an agreement sets a price which is to be adhered to throughout the life of the agreement, and if quantities are also rigidly specified, then the exporting country will find its receipts constant from year to year. As we saw in chapter 1, however, the benefits of this stability are

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[1] John Pincus, Economic Aid and International Cost Sharing (Baltimore: Johns Hopkins Press, 1965), p. 172.

[2] United Nations, Commodity Trade and Economic Development (N. Y.: U. N. Dept. of Economic Affairs 1953), p. 41.

probably terribly overrated. Nevertheless, a country which depended largely on one commodity for its export receipts, and which had a high ratio of trade to income could justifiably find the use of a bilateral agreement attractive.

Some countries might also be able to augment their receipts at the same time. Cuba before Castro was allowed to fill the gap between United States domestic supply and demand for sugar, and to do so at a price significantly above the world price.[3] In monetary terms, Cuba benefited substantially--to the tune of $133 million.[4] However, this wasn't the result of any normal bilateral contract. More properly the pact should be called an aid agreement. U. S. motives, to be sure, were not predicated on generosity--except to U. S. farmers whose incomes were assured--yet the pact was still more of an aid agreement than a true bilateral contract, the point being that true bilateral contracts are potentially useful only for stabilization and not for raising the level of export receipts.

The United Nations 1953 report Commodity Trade and Economic Development discusses several reasons to disfavor bilateral contracts as a means of bringing about stability. First of all, the possibility exists that long-term contracts may metamorphasize

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[3]This was not the textbook bilateral contract, but it was an offshoot of it; Cuba and other suppliers were guaranteed access to the U. S. market and were paid a price several cents per pound higher than the world price.

[4]Clair Wilcox and William G. Shepherd, Public Policies Toward Business (Homewood, Ill.: Richard D. Irwin, Inc., 1975), p. 615.

into short-term contracts. This has happened in the case of the UK agreements, some of which were altered to provide for the yearly renegotiation of price.[5] If a supplier happens to be one of those few countries for which export fluctuations are a genuine problem, such renegotiation of price could undermine all of the agreement's value. (Indeed, such an agreement ceases to be much of a bilateral contract.) What is at heart here is simply the ephemeral nature of such agreements: with only two nations involved they can come and go on a wing.

A problem of more interest is what happens to a market when a portion of the market is tied up in a number bilateral contracts. The U. N. report asserts that the part of the market not stabilized is likely to absorb the entire shock of any change in market conditions, and consequently fluctuate with even more vitality than when the entire market is free to fluctuate.[6]

The assertion is intuitively obvious. Given a temporary demand disturbance, the larger the market over which the disturbance could be distributed, the smaller would be the resulting price fluctuation. Yet for a number of reasons this intuition withstands scrutiny only tenuously at best.

To examine this issue I will use the case of the guarantee type of bilateral contract (that is, minimum sale at a ceiling

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[5]U.N. (1953), p. 41.

[6]Ibid.

price, minimum purchase at a floor).[7] Let's start from a position in which price is between the floor and the ceiling (assuming all agreements are the same). The market thus controls the price, and the agreements, for all intents and purposes, are inoperative.

What we must be concerned with is what happens when a change, say an increase in demand, occurs. To be sure, price will rise as long as demand rises, but at some point it will stop as far as contract buyers are concerned. These buyers will be able to buy as they please up to specified maximums at the contract price while all others will be forced to bear higher prices. If the UN's assertion is valid, these prices will actually be higher than they would be if there were no bilateral contracts.

There would seem to be four possible ways this could result. First, buyers under agreement might demand and receive larger quantities at the ceiling price than at the higher price they would have to pay in the absence of contracts. Such seems, at a glance, not only possible but necessary, the results being smaller supply in the rest of the market and, consequently, higher prices. But this completely ignores what happens at the other end of the price spectrum. There, buyers under contract must buy larger quantities than they wish at a price higher than others are paying. The unwanted quantities could directly decrease buying at higher price levels and in so doing soften the price rise in the uncontracted market, or they could be released to the market

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[7] The following arguments apply well to the more simple single-price, single-quantity type of bilateral contract.

at higher prices, achieving the same result.

The role of supply is more difficult to pin down. It seems possible that even if buyers under contract buy no more at the ceiling price than they would at the high prices from which the contracts insulate them, supply to the rest of the market could still be reduced. For if suppliers released the amounts that they would release in the absence of contracts, clearing the market at some price above the ceiling price, the average price they would receive would be, because of the lower contract price, lower than it would be if there were no contracts. Therefore, supply would tend to be lower because of the lower prices, and price would have to move higher to clear the market. That this could actually happen depends, as before, on the other end of the price spectrum, where contracts would produce, alternatively, an above normal average price. The result of the interplay of the two effects is not apparent, however, as it seems they could either reinforce or offset each other, depending on the circumstances.

A third and a fourth potential link lie in changes in the shape of either the demand or supply curves produced by contracts. Any such changes would depend on the existence of differences of some sort between those who enter into contracts and those who do not. While trying to describe comprehensively any such differences is certainly not my place, I can suggest one that seems likely. Buyers entering into contracts are likely to be those for whom the product is most indispensable. Their exit from the market at the ceiling price could produce a residual demand much

more price elastic. Thus a price rise smaller than otherwise could clear the uncontracted market.

The strongest conclusion I can make to all this is that the U. N. assertion should now be stripped of its intuitive obviousness. The supply effects could perhaps magnify fluctuations but the buyer-elasticity effect could obviate that result. Both effects, however, are highly speculative and the most I can do is admonish the authors of the U. N. report for failing to support their assertion.

The same report also touches upon the idea that the termination of a long-standing bilateral agreement could present either party to the agreement severe difficulties in reentering the market.[8] Though the point is made more in a speculative mood than in an argumentative mood, I wish to look briefly at the idea. First of all, in the absence of some rather fundamental change in the market, it would be hard to imagine an exporter having difficulty reentering a market, for the importer must also return. In a year of slack demand an exporter might find channels of demand rigidly set against him, but there is no reason why this situation wouldn't undo itself in an expansion year. However, if during the timespan of a contract a fundamental change were to occur in the market, so that demand for the exporter's product is undermined, then the exporter could find real problems in reentering the market. Such a problem is more correctly thought of as one of adapting to a shrinking market, however. A bilateral contract simply

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[8] U. N. (1953), p. 42.

concentrates the shock of the change.

I have tried to show in this section that while bilateral contracts are not forces malignant in every way, one would develop sore eyes looking for any benefits they might bestow on the LDC's. I must now consider the third goal which I speculated that ICA's might promote: that of leading toward economic integration. If any type of agreement is poorly suited to this task, the bilateral contract surely is. For one thing, due to its limited scope it can hardly be called a cynosure for LDC's. Moreover, even a web of such agreements wouldn't be of value, for it would certainly spawn among the poor countries competition to land the most lucrative contracts, and would probably not engender cooperation. Considering this, and considering the other conclusions of this section, I can state with little equivocation that bilateral contracts are not the key to riches for LDC's.

THE MULTILATERAL CONTRACT

The model of the multilateral contract form of commodity agreement is the International Wheat Agreement of 1949. As a stabilizing force, the agreement worked in this way: it assigned each exporting nation and each importing nation a quota based on the amounts each normally exported and imported respectively. Then, based on reasonable expectations of what the world price of wheat would be in the future, a floor price and a ceiling price were set, above which and under which, respectively, the price of wheat would not be allowed to go. As the arrangement worked, when the market price of wheat fell to the floor, importers were bound to buy all wheat that exporters wished to sell them, at the floor price, up to the limits of the import quotas. Likewise, when the price rose to the ceiling exporters were bound to sell. Through this process, price fluctuations were kept within the limits the farmers desired.[9]

Setting the floor and ceiling prices is a problem of the first magnitude in a multilateral contract. Care must be taken to neither set the prices too far apart nor too close together, for the farmer would tend to defeat intentions of stabilization

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[9] Johnson, p. 147-148. U. N. (1953), p. 43. A different form of multilateral contract agreement, a "superior version," according to Johnson (p. 148) is the Meade-U.N. proposal. In this scheme there is no minimum price. Instead, normal price and normal trade quantities are established, and consequently a normal trade value. When exporters as a group earn less than this value, importers pay them the difference. In return, producers set a ceiling price.

and the latter would result in perhaps constant and tedious pressure on the agreement's members as prices repeatedly approached the floor and ceiling. Similarly, efforts to move the boundaries could result in members' feeling pressure to withdraw from the agreement. The IWA itself set a fairly wide gap between the floor and ceiling, and consequently saw a fairly long life that included renewals in both 1953 and 1956.

Some have spoken in glowing terms about this form of agreement, saying that the allocative function of the free market is preserved in them.[10] I believe it is more accurate to say simply that this type of agreement manifests efforts to insure its longevity. Agreements which try to regulate prices and quantities are inherently unstable. By allowing price to move to some degree, multilateral contracts should see fewer pressure situations: the wider the band, the less likely is price to hit a boundary.

Related to this is a problem that Coppock sees in most types of commodity agreements: what to do about new production. No matter where it originates, if increased production represents a change other than a short term variation, it will subject the agreement to pressures, for unless the new production is small, the price must be forced down to clear the market. If it originates in a country not party to the agreement, then member importers could be driven to offer the new producer a market in exchange

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[10] Harmon, p. 19-20.

for a price lower than the floor price. If our aberrant importers get the price they desire, they would probably disregard their quotas.

The point is that unless such an agreement is administered with superior foresight, fundamental changes will not be seen in time to prevent the agreement's dissolution. At heart is the same inherent instability that I mentioned before. To forestall dissolution, administrators must perceive changes in demand and supply conditions and adjust the price boundaries and quotas appropriately. This holds just as true if the changes occur from within the agreement as from without.

We see, then, that the most pressing obstacle to such an ordering of commodity markets is that of predicting and setting the proper price. An agreement which disregards what is going on outside itself, or which sets prices after looking at the world myopically is likely to fail.

The pressure on an agreement which can derive from outsiders points to a vital necessity in multilateral contracts: inclusion of all major exporters and importers. Coppock, for one, insists on this point: "Participation by nearly all actually or potentially important supplying countries is required--a difficult matter." Moreover, "importing countries just about have to be included."[11]

The U. N. study concludes that multilateral contracts are to be preferred to bilateral contracts. Its reasoning is simple: bilateral contracts stabilize only a part of the market and may

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[11]Coppock, p. 154.

destabilize the rest. I agree with the conclusion, but not with the reasons. It is highly unlikely that several countries producing the same commodity could all experience fluctuations that play genuine havoc with their internal economies. A single country, maybe, but more than one, probably not. Why should a country not hurt by fluctuations pay for the negotiation and implementation of an agreement? Bilateral contracts may strike directly where the problem is evident, and at the same time probably not disturb other nations producing the commodity.

Yet as I said in the last section, bilateral contracts pit producer nations against one another. The reason I prefer multilateral contracts is that they do not. Producers must become at least somewhat unified in such agreements, as they work for concessions from importers. This may be a weak sort of integration, but as I have stressed, it is a beginning. With a loose network, producer nations might could begin to consider ways in which production of their primary products could be rationalized to best benefit the whole. From there perhaps a modicum of policy integration would emerge.

Of course, concommittant with the South's unification is the North's unification. Every such agreement pits producers against importers. Whether this battleline formation would be a hindrance to the South's own effective integration is not apparent. I believe, however, that any hindrance would be of little worry, for unification in the North could go but little further than it has gone up to now in such bodies as EEC and OEC. Moreover, benefits

of South integration are as likely to occur from internal change as from pressure applied on North importers.

Thus, I must believe that as a step toward integration multilateral contracts could be the interest of the LDC's. An LDC with an enlightened government might see through the smokescreen that cries for stability are likely to be and yet find it in its interest to work for such agreements. If poor countries could take the necessary steps toward integration without going the route of ICA's then such agreements would not be needed. But in light of the fact that poor nations are at one another's necks at least as often as they are at the necks of the rich nations, intermediate steps would seem to be a political necessity.

THE QUOTA AGREEMENT

The Machinery

An agreement which by assigning quotas to member nations regulates quantities which the nations can export or import is appropriately called a quota agreement. These agreements may embrace either exporters or importers alone, or both together. For the purposes of this paper, those embracing exporters alone are of primary importance.

Quota arrangements may be of two types. One establishes indirect control over price by regulating quantities that may be exported. The other establishes a price by agreement, and assigns to each exporter a portion of each year's market available at that price.[12]

The literature is generally critical of quota arrangements, and the criticism consists of two main points. First, it is said that these agreements are inherently so unstable that resources may be wasted, in effect, in negotiating them. Edward Mason and Coppock are two who use this line.

A good number of factors should make quota agreements expect premature death according to these two economists. First on the list is the inequality of interest among participants. In Edward Mason's words, "Low-cost producers, reluctant to participate, may have been convinced only by the pressure of immediate market

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[12]Johnson, p. 146. U. N. (1953), p. 44.

conditions. As conditions improve, these producers may come to feel that unrestricted competition will assure them larger exports than have been assigned them under a quota system."[13] Mason seems to imply the existence of some relationship between cost and a nation's willingness to join an agreement. I will try to get beneath this relationship shortly. Regardless, though, his argument seems to say simply that a nation may agree to quotas that it will later be unwilling to maintain. Who can argue with this? Political troubles beset any agreement.

A more significant reason to suppose that quota agreements should be short lived is that in order for them to gain the approval of adequate number of producers, they often must be "loosely worded," according to Mason. An example is the International Wheat Agreement of 1933. This arrangement barely got off the ground before it was broken by Argentina, whose representatives argued that North American producers had already failed to adhere to what Stanford's Joseph Stancliffe Davis calls their "badly-worded committments to contract their wheat acreage for 1934."[14] Thus, what Mason is arguing is that the political element in such an agreement is likely to be difficult to overcome, and if circumvented in negotiation, likely to return to spell doom.

If the political element is not supervened, and consequently

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[13] E. S. Mason, Controlling World Trade (N. Y.: McGraw-Hill Book Co., 1946), p. 225

[14] Ibid., pp.225-226.

an agreement which does not cover all sources of supply is agreed upon, chances are not good that it will live long.[15] The larger is the source of supply not covered, the greater will be its injurious possibilities. Even a very small outsider experiencing peak production in a year of low demand could seriously cut into the exports of the members. And even if he did not, his ability to dispose of all of his production each year could easily enrage those paying for the operation of the agreement.

What makes these export quota arrangements especially prone to breaking down are the temptations felt by the individual producer. A country which found itself with a huge excess of production would be severely tempted to abrogate the agreement by offering its production at a lower price than was agreed upon. Indeed, Mason believes that this might be the real reason Argentina violated the 1933 Wheat Agreement. Argentina found herself with huge stocks of wheat on her hands and no place to store them.[16] Coppock finds this sufficient reason to conclude that importing countries just about have to be included in any agreement.[17]

Another factor likely to break a quota agreement is the members' myopia concerning new production. Even if all production was covered at an agreement's inception, the agreement would still be prey to the new production of outsiders. In order to survive,

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[15] Mason, p. 226.

[16] Ibid., p. 226.

[17] Coppock, p. 154.

then, a quota agreement must be flexible enough to quickly take under its wing new producers.

What we see abiding in quota arrangements, as in multilateral contracts, then, is inherent instability. They are not agreements for which benefits are immediately evident, and perceived benefits from breaking them are often great. If these problems can be overcome, then quota arrangements may indeed stabilize price and to some degree export receipts. Before I discuss benefits deriving from quotas, however, I must discuss the other half of the two-fold argument against them.

This argument is simply that cost differences become neglected or forgotten with the imposition of quotas. Mason is one of those making this argument, as he says in discussing the desirability of quotas that they, "freeze exports in existing channels and production in existing locations."[18] The 1953 U.N. report agrees, noting that by freezing production patterns quotas encourage high-cost production.[19] Both argue, as we can see, that in the absence of agreements, production naturally flows to those able to produce at lower cost. This I do not dispute, but I must scrutinize the means through which the movement is made, and who, if anyone, benefits from it.

The movement is accomplished only by price changes, which tend both to augment demand for those lowering price--the low-cost

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[18] Mason, p. 231.

[19] U. N. (1953), p. 45.

producers--and force other producers to cut back their high-cost output.

Mason, like most others, wrote from the view-point of the part of the world in which he lived. It is of course in the interest of the industrialized world to have production move to low-cost producers, for price must fall to effect the change. Efficiency gains ground, and benefits are obvious. But what about the country that gets squeezed out in the process? And even what about the country or countries that finally wind up producing the bulk of the total output, but which find prices much less desirable?

The former country surely hasn't gained from the heightened efficiency, but more significantly, the latter countries may not have gained either. Whereas when price was higher these countries might have experienced surplus profits after paying off their factors of production, a new and lower price might bring less profits. Primary producing countries are marked for their inabilities to accumulate profits through the sale of their primary products. A look at the meaning of cost in a poor country should help show why.

In an industrialized country, if, say, a mine owner is unable to pay rent on his land, pay his laborers' salaries, and so forth, he will be operating in the red and will eventually be forced to shut down, because his money costs reflect fairly well the social costs of each factor of production. The laborers will be hired elsewhere, the land may be used for any number of things, and the owner himself may be valuable to society in some other capacity.

Each factor, in a word, has true opportunity costs.

This is often not so in a poor country. Laborers loosed when a mine shuts down will be unable to make themselves productive again. Even land, if it is not arable, may have few alternative uses. Thus, if a government must decide whether to shut down a mine that is losing money, it must not look at mere money costs. Laborers, to be sure, are going to be paid well above their opportunity costs, which may be at a subsistence level. Even if money were being lost by the mine's operation, the government may wish to maintain it through subsidization, rather than support the laborers directly in some fashion or another. To be sure, some point will be reached at which the operation of the mine could in no manner be justified, but that is likely to be well below that point at which the North producer would order a shutdown.

It is easy to see where this leads us. First, as prices fall because of production by new low-cost producers, high-cost producers will continue producing past the points where they are losing money. They may perhaps be able to unintensify production slightly to mollify profit hardships, but they probably won't be able to do this for long. Thus, price will have to fall a good deal to force these countries out of the market. Unless the cost differences between the new low-cost producers and the old high-cost producers is tremendous, the new producers themselves are unlikely to show much profit accumulation. And since other producers would be so willing to reenter the market, the new ones will

be quite unable to raise prices.

We are aware, of course, that although the new producers may not be able to accumulate profits, they have gained, for because of higher employment rates, fewer persons need be on government doles. And, to be sure, some of the wage money will circulate and promote expansion. Yet if the industry doesn't show a money profit, it cannot contribute directly to capital for development (which it would do directly if nationally owned, through taxes and investment if privately owned). To be sure, if the government were able to force people to save in a prescribed manner then there would be less of a problem, for the newly-augmented number of persons receiving wages would mean higher levels of saving and therefore more development money. When we recognize the difficulty of doing this, we may conclude that perhaps smaller levels of production, coupled with higher prices and, therefore, profit accumulation, might be desirable. Moreover, a slightly higher price, if it assured the continuance of only a limited amount of old production, could easily mean higher total levels of export receipts for all the countries because of the inelasticity which characterizes the demand for many primary products. The new producers' share of this higher level could offset the loss of market share caused by the higher price.

Some further comments on costs in LDC's are in order now. What kind of costs determine whether one is a low-cost or high-cost producer? Most importantly, not labor costs, for the opportunity costs of labor are probably going to be very similar

among LDC's, approximately zero. Wage rates are merely arbitrary decisions. Lower relative costs deriving from the use of an innovative method or machine are unlikely to last long, for competitors will adopt the innovation. In the extractive industries there may be real cost differences, however: All mines do not yield the same grade ore. (Yet a forward-looking person might legitimately ask why we must use the cheapest sources first. A discussion of this point, however, is beyond the scope of this paper.) I can say about mining, though, that since a good bit of the cost of mining an ore is labor, what I said about such costs apply to mining. A last cause of difference in cost is quality of land available for farming. This is, next to mining, the most real source of differences. But, again, there is an area of play, an area where land differences wouldn't be so great that differences in intensity of cultivation wouldn't allow a supposedly high-cost country to compete with a low-cost one.

My conclusion is that the fact that quotas may freeze productions is unacceptable from the poor country viewpoint as an argument against quotas. There is likely to be a point in a low-cost producer's expansion of output past which any gain in market share would be completely offset by price cuts.

At this point I must take up Mason's point which I cited earlier. Mason pointed out that interests may clash in a quota agreement. I quite agree, and add this to the list of political problems quota agreements must overcome. Unlike Mason, however, I believe there is a point at which interests converge. The

difficulty is to set the price and market shares at levels acceptable to all. If it is recognized early that a new group of producers is willing to accept lower prices to grab a share of the market, and if discussions are quickly held to broach the subject of quotas, the new producers should expect much difficulty in getting the old producers to reduce their market shares, and the old producers should expect vehement objections to proposals for maintenance of the status quo. These squabbles are, as Mason would suggest, likely to be difficult if not impossible to supervene, but if they can be I must conclude that the results could be attractive in the eyes of producers.

My argument can serve to defuse another point leveled at quota agreements. The Angell Report states that such agreements, "lead to unnecessary unemployment of resources," which, we are to infer, is bad for everyone.[20] To me such a statement shows little understanding of the forces the poor producer countries are up against. It is condemning, in effect, means to ensure these producers some minimum levels of profit. It complains because prices must be above what they would be without an agreement, so that as a consequence the world "underemploys" resources bound in agreements. Were the industrialized nations producing these resources, however, we could be sure that the price would be high enough to ensure that someone would make a money profit, for unprofitable producers would be forced to close up shop.

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[20]United Nations Measures for International Economic Stability (U.N. Dept. of Economic Affairs, 1951).

Regardless, the U. N. argument is senseless when attributed to the poor countries, for the ultimate end of policies is welfare; maintaining certain levels of employment is only one means of getting there.

Potential for Cartelization

I have shown up to here that quota agreements which fix price may be in the interest of the LDC's. It should be obvious what is really going on when through quotas prices are prevented from falling. Price is not being stabilized "around its trend" as was the case with the other agreements. Instead, quotas sever the link between the market and price. The "trend" is what the framers of the agreement say it will be.

It should be evident what I must consider next. If the many political problems involved with quotas can be overcome and through them price neutrally stabilized or prevented from falling, could price also not be raised? The first questions that I must ask are what criteria define a commodity's suitability for purposes of price hikes, and which commodities fulfill these criteria?[21]

The primary criterion is self-evident: commodities should be

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[21] In the following discussion my debt to John Pincus is tremendous. At Rand and Johns Hopkins he has done by far more work than anyone else on possibilities for price fixing, and his method of examination I have adopted.

significant in the trade of LDC's. An agreement costs money to draw up and administer so that, purely and simply, if the benefits deriving from it are likely to be paltry, it may not be worth the trouble.

There are numerous products important in the trade of LDC's.[22] As one begins to assess the possible results of price fixing, he must notice one thing right away: many of the commodities important to the LDC's are also important (at least somewhat) in the trade of the developed countries. These commodities are citrus fruits, oils and fats, tobacco, copper, iron, manganese, rice, and cotton. Pincus is unkindly disposed toward attempts to fix price in these commodities because successful attempts would mean windfalls for not only poor nations but also for the rich. Any time and effort earmarked for price fixing should go first to those commodities exported only by the LDC's.[23]

Pincus furnishes us with an additional reason for concentrating on just these commodities. He presumes that approval of importers (I'll discuss this issue later) is necessary to get many agreements off the ground. If some exporters were in the North, it is hard to imagine other North countries agreeing to subsidize them through a quota arrangement. Price rises in the eight commodities

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[22]A complete list includes the following: petroleum; the extractive minerals - aluminum, iron, copper, and manganese; agricultural products - coffee, cotton, bananas, cocoa, tobacco, sugar, rice, citrus, sisal, jute, rubber, tea, and the natural oils from flaxseed, cotton, palm, linseed, peanuts, and copra.

[23]Pincus. Aid and Cost Sharing, p. 157.

listed above would benefit mainly the United States, the Soviet Union, Canada, Spain, and South Africa, while forcing most of Europe to pay higher prices for imports of the products.

If widespread approval could be gained, or if a successful agreement could be formed without importers, then LDC's might be able to benefit from agreements on these products. Poor countries don't import great quantities of these commodities, so those not producing them wouldn't suffer, and the ones which do produce the products could perhaps gain from the stabilizing influence of the industrialized countries. In any event, the question is but academic, for the commodities do not lend themselves to price fixing.

Iron, for one, is totally unsuited. In addition to the fact that of the five largest sites of iron reserves--The Labrador Trough of northeastern Canada, the Transvaal, the Ukraine, The Hammersley Basin of Western Australia, and Minas Geras in Brazil,[24] only the latter is in an LDC, iron has many other smaller producers ready to quash any agreement, and more importantly, iron finds competitors--aluminum and plastics--ready to jump at the chance to take over for it. All in all, its problems seem insurmountable.

Manganese is produced predominantly by the Soviet Union, but important amounts also come from South Africa, India, Australia, Brazil, Gabon,and China.[25] Surely some LDC's would benefit from an increase in export monies. Although manganese is, in one

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[24]Brian J. Skinner, Earth Resources (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1976), p. 65.

[25]Ibid., p. 71

geologist's words, "an absolute essential, for which there is no substitute, in the making of carbon steel,"[26] a factor of a different type weighs heavy on possibilities for price fixing. According to Brian Skinner, a Yale geologist, dredging of the ocean floor for manganese nodules has become feasible, and in fact is being tried by several U. S. and Japanese companies.[27] Estimated reserves so far exceed even all other known deposits that any price raising scheme set up would probably be but a fleeting reality.

Aluminum is a metal whose demand has risen steadily. Its principle mineral source, bauxite, is found in but a few countries: Cameroon, Guinea, Surinam, Guyana, Jamaica, and Australia.[28] However, two immovable objects stand in the way of price fixing: first, steel products and plastics would probably be substituted for aluminum in the event of a price rise of any significance. Second, the day is fast approaching, according to Skinner, when technology will allow the production of aluminum from others of its several minerals. France will soon be producing aluminum from aluminum silicates, and if successful, we should see other similar plants go up. More significantly, a rise in the price would make the derivation of aluminum from clays profitable. Technology is already available, and clays are everywhere.[29]

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[26] Alan Bateman, Economic Mineral Deposits (N.Y.: John Wiley & Sons, Inc., 1948), p. 575.

[27] Skinner, p. 71.

[28] Ibid., p. 68.

[29] Ibid., pp. 69-70.

Vegetable and animal fats and oils come from numerous sources--such as flaxseed, palm, linseed, peanuts, cotton, and copra--and numerous places on the globe. And as if this weren't enough, production is now on the rise, as producers in several parts of Asia are learning about the many types of seed which yield marketable oils, and how to prepare these oils for sale. The task of controlling all oil prices seems to be an impossible one. The experience of centuries has taught the world the difficulty of maintaining price fixing schemes for a single product; we need but reflect for a moment to imagine the impossibility of maintaining prices of the varied types of oil in relation to one another.[30]

Citrus fruits, though more easily differentiated from other fruits than, say, flaxseed oil is from other oils, are nonetheless similar to other fruits. Pincus finds the similarity too strong to allow any hope of raising the price of citrus fruits independently and not see revenues plummet.[31]

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[30]There have been schemes proposed that would control a group of commodities at once, but since such proposals are no longer prominent in the literature, and since such all-encompassing control must broach the subject of the structure of the international monetary system, I cannot consider them in this paper. An example is the Graham-Goudriaan proposal discussed in Harmon.

[31]John Pincus, "Commodity Agreements: Bonanza or Illusion?" in John Pincus ed. Reshaping the World Economy (Englewood Cliffs, N. J.: Prentice-Hall, 1968), p. 149.

Tobacco, while it is important to LDC's as a group is not important enough to any small group of LDC's to warrant attempting to raise its price. While the United States is by far the world's leading exporter of tobacco (which itself augers bad for an agreement), there are fifteen nations which each export at least 1/10 as much as the U. S. each year, although none exports much more than 1/4 of the U. S. total. In addition, there are myriad other even smaller exporters.[32] It would be nearly impossible to keep all this production under wraps and prevent new production from arising. And even if possible, benefits would fall in large part to the U. S. Therefore I must agree with Pincus, and find tobacco, as the other competing products, a poor target for price fixing.[33]

Rice is a commodity without a close substitute. Other unique characteristics of its trade make it undesirable for price fixing, however. Unlike other commodities, rice is imported as well as exported by LDC's. Moreover, LDC's import the bulk of total production. Europe from Vladivostok to Lisbon imports but an eighth of world production. Thus, a price fixing scheme, if successful, would hurt the poor countries as importers. It could, perhaps (depending on its elasticity), benefit some, but--adding to the undesirability--it could mean a windfall to the U. S. which exports

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[32]United States Dept. of Agriculture, Agriculture Statistics 1975 (Washington, D. C.: U. S. Government Printing Office, 1975), pp. 108-109.

[33]Pincus,"Commodity Agreements", p. 149.

more rice than any nation but Thailand, and even more than Thailand in some years.[34] In several ways, then, rice seems a poor target.

Cotton is a commodity exported in quantity by LDC's, but it has the undesirable characteristics of the oils. That is, to raise the price of cotton the prices of all other textiles fabrics would have to be taken into consideration.[35] Synthetics have already sent cotton to the cleaners in the last couple decades, and it is not hard to imagine the accelerating effects a significant rise in the price of cotton would have. A very real political problem too, is the fact that the United States and Soviet Union would be the only beneficiaries in the industrialized world, and their gains would be large.[36]

For a variety of reasons, then, we must eliminate from consideration this group of commodities. I will now begin looking at the commodities exported predominantly by the South.

Jute, rubber, and sisal are three commodities produced predominantly in poor countries. Rubber, however, must compete with synthetics produced mainly in the European community, and jute and sisal, like cotton, must compete with both synthetic textiles and natural ones, produced in both the North and the South. This

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[34] U.S.D.A., pp. 26-27.

[35] Pincus, "Commodity Agreements," p. 149.

[36] U.S.D.A., p. 65.

competition destroys any hope for long-range efficacy of price fixing schemes for these commodities, so we must strike them off our list.[37]

We are left with but a handful of commodities: coffee, sugar, tea, bananas, cocoa, tin, and petroleum. These are the commodities which are important to LDC countries, which have no close substitutes, and which are not exported in significant quantities by industrial countries.[38] Thus, these are products whose proceeds flow mainly to the South, but more importantly, they are products whose demands are probably inelastic. I have waited until now to actually employ this term, preferring instead to show the many reasons why so many products don't lend themselves to price fixing. I must now introduce the term, for it brings up an interesting dispute.

A product's elasticity is determined, as every Economics Principles' student knows, by the importance of the product to buyers, and by the availability of suitable substitutes. In discussing commodities suitable for restriction, we dismissed many commodities simply because suitable substitutes are plentiful. For some commodities, like oils, it seems that the closeness of substitutes would preclude any price fixing possibilities, while

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[37] Pincus, Aid and Cost Sharing, p. 158.

[38] For the most part tin doesn't compete with iron and the main nonferrous metals, copper, lead, zinc, and aluminum. It is used in small amounts of numerous alloys for the hardness, oil retentiveness, and corrosion resistance it imparts to other metals. It is used in large amounts in solder, a unique substance, and tinplate, as a protective coating over steel. See Bateman, p. 545.

it seems that for others, like cotton, the amount of substitution that has already taken place at normal prices would presage what would happen if prices were raised. The question I wish to introduce, however, is, where do we draw the line? What is the maximum value we could accept for elasticity?

The answer Pincus enumerates is straightforward: demand must be inelastic over the whole range being considered for support.[39] The commodities I have ended up with all meet this criterion, according to Pincus. The requirement seems completely reasonable at first, for in the absence of inelasticity, export restriction and price hikes must result in lower revenues for exporters.

Implicit in the Pincus view is the idea that a nation's welfare is best served by maximizing export receipts. If to raise price means to decrease receipts, then price should not be raised. This is of course what happens when demand is elastic. Johnson challenges the premise.

The Chicago economist argues that when a good's export is restricted, a nation may benefit in two ways. The obvious way is through augmented export receipts if demand is inelastic; the less obvious way is through the freeing of resources used to produce the product, whether demand is inelastic or not. Johnson is simply arguing that "the optimal degree of export restriction" lies at a point above unit elasticity. As producers raise price

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[39] Pincus, Aid and Cost Sharing, p. 158.

(and thereby raise elasticity), they should do so past that point which maximizes receipts, for to some distance past this point there is a favorable trade-off between receipts lost and resources freed.[40]

If we accept Johnson's argument we may believe that agreements restricting such commodities as cotton, rubber, and jute would serve the poor countries. What resources are freed, however? Johnson assumes that freed resources are valuable. I find it doubtful that in countries where nigh levels of actual unemployment are mitigated only by higner levels of underemployment could resources from production of primary products be valuable. For the freed resources would mainly be labor resources, which are hardly in short supply in most LDC's. Further, although land released from export crop production might be valuable for a number of other uses in a population-rich LDC, land resources are certainly not freed when a country slackens the production of its extractive industries. Even if some valuable land were released, however, the concommittant loss of export receipts would probably have to be very small to assure that the gain from the land would not be immediately offset.

A danger in implementating the Johnson criterion is the possibility of making a costly and irreversible mistake. A group of countries that raised the price of a commodity could find that the released resources were not so valuable as they had

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[40] Johnson, p. 155.

imagined. Yet when they decide to lower price, they may find themselves unable to regain their former position. The reason is simply the higher the price they sell, the greater is the chance of synthetics and other sources of production emerging. These are not likely to wither away when prices fall: synthetic industries generally become more efficient over time, and competing producers in the North will call for and probably get, tariff protection. This is of course a danger whenever price is hiked, but the higher price goes, the greater is the danger.

More fundamental than this is the influence of short-term elasticity. When a price is changed, buyers need a certain time to adjust for substitutes. This is especially true for many primary products used as raw materials. The result is elasticity lower in the short-run than in the long-run. Our producers who wish to lower price to increase export receipts may find themselves with short-run elasticity so low that it will give them several lean years in returning to their former position.

It should be obvious, then, that I find little merit in Johnson's criticism. Johnson himself doesn't propose actually using his suggestion, asserting instead that until further study is done, the criterion of inelasticity is safer.[41] The Chicago professor, however, criticizes Pincus in another way too.

When Pincus speaks of raising prices, he is obviously concerned with long-term demand, with what demand will look like when

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[41] Johnson, p. 156.

all substitutions have been made. Johnson points out that the period of adjustment may be so long that sellers may wish to sacrifice high levels of receipts later for even higher levels now. The poor countries wish to industrialize as quickly as possible, thus "it might well be an optimum strategy for them to attempt to maximize their profits from primary production over the short run, at the expense of future earnings, in order to secure their development objectives.[42]

What Johnson is arguing has some merit, I believe, for early industrialization could help pave the way for future industrialization, which would negate the loss of earnings. I don't believe, however, that periods of very high export earnings would last very long for most primary products. And considering the slowness that characterizes the industrializing process, it seems doubtful that the loss of future earnings could be offset in many cases by the influence of the initial industrialization. Regardless, research needs to be undertaken to determine for individual commodities how elasticity changes with time. In the interim, I must side with Pincus for the reasons I have stated.

We have, then, a small group of commodities through which hikes would benefit the poor countries, and whose demand elasticities are appropriate. These are coffee, sugar, tea, bananas, tin, cocoa, and, of course, petroleum. I wish now to answer two questions: on what factors does the success of a restriction scheme

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[42] Johnson, p. 155.

involving one of the commodities depend? And what are the probable results in money terms?

According to Pincus, several factors determine whether an agreement will last long enough to find the gold at the end of the rainbow. Supply, first of all, should be dominated by one or two producers. Such dominant producers should be able to overlook the "inevitable supply control violations" by smaller producers and thereby prevent an agreement from crashing down prematurely.[43] Secondly, Pincus argues that real success must mean that there are a large number of producers feeling the benefits of the price rise.[44] Otherwise benefits are endemic, which is not good. I find difficulty in agreeing: if the profits from monopoly banana prices were spread far and wide, it is doubtful that they would show any tangible results at all. Might it not be just as "good" to give a few producing countries hope for a modicum of development instead of condeming all to a perpetuation of their want?

A more valid natural determinant of success is the amenability of the commodities to national production control measures.[45] For a quota agreement to work each participant nation must be able to effectively control its production. If member nations fail, and domestic production exceeds individual quotas, the agreement

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[43] Pincus, Reshaping the World Economy, p. 151.

[44] Ibid.

[45] Ibid.

would find itself under pressure. Some commodities lend themselves much more readily to control, and it is these commodities which would have the greatest chances for success in a quota scheme. Which commodities these are, and which satisfy the condition of supply domination, I will next enumerate.

Coffee, for one, has a supply condition Pincus would like. Brazil dominates production (though to a continually decreasing degree), and thus can be the leader in an agreement. Further, though coffee production is difficult to control within any one year or even within several years, it is easily storable, a factor which relieves the pressures a nation feels to exceed its quota in a year of a bumper crop. Habitual overproduction would not be mitigated by good storage opportunities, however, and that has been a problem of past coffee agreements. Individual countries must either control planting directly, or set domestic coffee prices at levels which provide the correct level of incentive to producers to limit plantings themselves. On the whole, coffee is a good target for a quota scheme. It was under agreement during most of the 1960's, in arrangements which finally broke down in 1972. A new agreement is set to take effect in October of this year. I will discuss this agreement later, as it is important in another regard.

Tea's position is similar to coffee's, but better in one respect: production can be easily controlled by simply picking more or fewer leaves from each plant. Its supply is dominated by India and Sri Lanka, which together account for nearly 60% of

world tea exports. Most of the rest is spread among ten much smaller producers, the most important being Kenya, Indonesia, and China.[46] Thus, tea would seem to be a prime target for price fixing. Britain recognized just that when India and Sri Lanka were her colonies. A quota agreement among tea producers was in effect from 1933 until 1943, and probably prevented the price of tea from falling as much as those of other primary products in the depression.[47] There have been no recent attempts at forming a full-fledged tea agreement in the hopes of raising prices, but possibilities have at least been recognized. In 1969, the Food and Agricultural Committee of the U. N. created a consultative committee on tea. The committee has met periodically to discuss exports and prices, but lacks the coercive force of a quota agreement.[48]

Cocoa is in a slightly less desirable position. Pincus points out that the possible substitution of other fats for cocoa butter could limit long-run gains.[49] As a matter of fact, some feel that cocoa's long-run elasticity may make the commodity unsuitable for inclusion in a price fixing scheme. Hans Bachmann has pointed out that high cocoa prices in the 1950's were probably responsible for

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[46] U.S.D.A., p. 257.

[47] International Labour Office, Intergovernmental Commodity Control Agreements (Montreal: International Labour Office, 1943), pp. 47-58.

[48] Wall Street Journal, Dec. 1, 1969, p. 28.

[49] Pincus, Aid and Cost Sharing, p. 171.

the deterioration of the U. S. market, which never fully recovered after prices fell.[50] Compounding this trouble, cocoa, unlike coffee and tea, cannot be stored easily in the tropics where it is produced. An agreement could presumably provide suitable storage facilities and solve that problem, but the problem of yearly overproduction would remain as for coffee. Production of cocoa is dominated by Ghana and Nigeria, but not to the degree that Brazil and India dominate coffee and tea respectively. That shortcoming is made up for by cocoa's being produced in significant quantity in only a relatively few countries. Besides Ghana and Nigeria, Brazil, Ivory Coast, Cameroon, and Ecuador are the only other significant producers.[51]

Until 1971, several attempts at formulating a cocoa agreement had all failed.[52] In that year, however, the six-nation Cocoa Producers Alliance adopted a draft agreement calling for inter alia export quotas.[53] The following year an International Cocoa Agreement was signed by 55 nations, both producers and consumers (The U. S. was not one of the signatories).[54] This agreement set up the International Cocoa Organization which through the use of buffer stocks (which are the subject of the next chapter)

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[50]Hans Bachmann, The External Relations of Less-developed Countries (N.Y.: Praeger, Inc., 1968), p. 48.

[51]U.S.D.A., p. 225.

[52]Pincus, "Commodity Agreements," p. 155.

[53]Wall Street Journal, Sept. 7, 1971, p. 22.

[54]Wall Street Journal, Oct. 23, 1972, p. 16.

and enforcement of quotas, was to maintain the price of cocoa between agreed upon boundaries. The machinery never had to be used, however, for the price was never even as low as the ceiling. Therefore, late last year a new pact was reached which will raise the price boundaries considerably when it takes effect October 1 of this year. Again, the U. S. demeured, believing, perhaps correctly, that the high prices are a temporary phenomenon, and that when they fall, the agreement will prevent them from falling as much as they otherwise would.[55] Whether the Cocoa Agreement will be successful will be difficult to determine for many years. However, we can be sure that any real monopoly gain will be difficult to achieve, and that the agreement will be prone to breakdown without support of the United States, which buys about 25% of all exports.

Sugar is a commodity nearly as valuable as coffee, and because of its low demand elasticity, seemingly well suited to a restriction scheme.[56] Moreover, its world exports are dominated by Cuba, with Brazil and Australia next, and its storage is not nearly so troublesome as cocoa's. A major thorn in sugar's side, however, is the fact that it can be grown almost anywhere in the world, according to Pincus, albeit at high cost. This means that significant price hikes, without concomittant increases in demand,

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[55] Wall Street Journal, Oct. 20, 1975, p. 23.

[56] Pincus, Aid and Cost Sharing, p. 173.

could be self-defeating.[57]

The world sugar market has for years been strangely organized, yet it lent itself to quota agreements. The United States and Britain have for decades employed their own forms of preference systems and quotas, assuring lucky buyers a market, and a usually high-priced market at that.[58] An agreement had simply to take care of the residual production. Such agreements operated one after the other from 1937 until the United States repudiated its preference for Cuban sugar in 1961.[59]

After 1961, producers needed time to reshape a market radically altered by the U. S. move. By 1968 producers had once again seen the virtue of organization as they set up the International Sugar Organization. Again the task was to organize the production not contracted for by the U. S., which had simply altered its preferences. A minimum price was agreed upon, and the Sugar Organization was empowered to enforce quotas to defend the price.[60] This it did several times in 1971 as the world sugar price slumped. From that time on, however, sugar has had no need for restriction. Price has moved steadily upward since then, never even approaching again the 1.5¢ per pound world price of 1968. Nor is it likely to approach it, for the Middle East sweet tooth now has the bite

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[57]Pincus, "Commodity Agreements," p. 152.

[58]Pincus, Aid and Cost Sharing, p. 172.

[59]The First ones discussed in International Labour Office, pp. 26-46.

[60]Wall Street Journal, Oct. 30, 1968, p. 20.

to outbid other nations for sugar supplies.

For this reason it seems to me that a new sugar agreement is now in order. A stronger reason is the demise in 1974 of the U. S. preference system. Congress in that year refused to renew the Sugar Act, and thus permitted U. S. buyers of raw sugar to do business with whomever they pleased. That meant as well that Phillipine producers, among others, were going to have to enter the world market. Prices have remained relatively favorable, as I've said, but even if this is where they are likely to remain, a new quota scheme is certainly in order.

Bananas are the least important of the five agricutural commodities, and also perhaps the most difficult to formulate an agreement around. For one thing, bananas are difficult to store. Compounding the problem is the fact that banana plants have a long maturation period, which makes production in any one year nearly impossible to control. But more importantly, although it is widely believed that bananas have inelastic demand, the demand probably is more elastic than those of the other commodities we've discussed because of the availability of near substitutes. In any case, price could be raised only slightly at best.

When we consider the liklihood that individual nations would periodically have to destroy part of their crops in order to meet their quotas, and when we realize that any agreement would itself have administrative costs, we should conclude that any increases in revenue from bananas probably wouldn't be worth the trouble of an agreement. To my knowledge there have been no

banana agreements.

Tin is one of only two non-agricultural commodities for which conditions for price fixing are met. Not only is its demand elasticity low, but its production is completely controllable simply by shutting down the mines, and its supply originates with but a handful of producers and is concentrated in Malaya.

Tin has been recognized as a suitable target for a number of years. The Depression saw the formation of an agreement designed to prevent price from plummeting and insure that stock accumulations would be sold off.[61] The agreement has been renegotiated often, and has been fitted with buffer stock stabilization schemes as well. The last such agreement took effect in 1970 and still operates today much to the delight of Malaysia and the few other countries which possess tin. The member nations manage their own supplies, and the Tin Council stabilizes price at the targeted level.[62]

Petroleum is the last commodity, and also one I hardly need mention. What could be more suited to a quota scheme than a commodity whose supply can literally be turned off and on like a spigot? This is in addition to petroleum's being a near sine qua non to the lives of people in the North.

Oil has never been traded on the world markets in anything resembling a free market. Prior to OPEC the oil companies fixed

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[61] International Labour Office, p. 73.

[62] Wall Street Journal, Oct. 21, 1970, p. 32.

prices in cooperation with the nations from whom they took the oil. So really the OPEC price hikes have been just the logical results of a price fixing scheme already in existence.

In 1965 Pincus estimated that "at least 25 countries could benefit substantially from higher prices for cocoa, tea, coffee, sugar, and possibly bananas."[63] His crude estimate of aggregate gain showed a possible increase in 1961 earnings of about 13%, from $4.36 billion to $5.04 billion.[64] Tin, as I've said, was already under agreement when Pincus made his estimate, and much to his present regret I'm sure, the potential for oil he completely disregarded. Thus it is that his estimate includes only five commodities. His estimates were fairly optimistic and it seems to me that today there is some place for optimism too. Coffee producers can look forward to continued high prices when the new Coffee Agreement takes effect in October; cocoa producers can have the same optimism. Sugar producers can expect their market to be strong, and with the experience of numerous sugar agreements behind them they should once again be able to organize effectively. Tea seems fairly ripe also, though less valuable. I do not, however, see riches emanating from bananas.

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[63] Pincus, Aid and Cost Sharing, p. 161.

[64] Ibid., p. 167.

North Approval?

I have avoided so far discussing the role of the North in an agreement to raise prices. The role is impossible to ignore, for industrial countries have been and are signatories of such agreements, including the new International Coffee Agreement.

Why, first of all, would an association of producers welcome consumers into its fold? These reasons should be obvious by now. The stability of a restrictive agreement depends on getting all sources of supply covered. Even with this condition met, restrictive agreements have proved themselves unstable, for lucrative (and secret) offers made to individual suppliers can have devastating effects. Thus, producers wish to have the support--symbolic if not heartfelt--of their buyers. Moreover, if all major exporters are not party to an agreement, it may be mandatory that importers be members.

Our more interesting question is why would the North acquiesce in the legislation of higher prices? Why would it participate in robbing itself? The most obvious reason is that approval is tantamount to foreign aid, and foreign aid buys good relations. While certainly not the most direct way to transfer capital, a commodity agreement may be a very desirable one, for the alternative--refusal to cooperate--could lead the way toward poor relations with the producer countries.

We need only see what has happened to United States stature in the poor countries to see the truth in this statement. Throughout the post-war period the U. S. has persistently tried to impose

its free market ideals on the world's trade. The International Trade Organization shortly after the war would have set up ground rules for commodity agreements. It died because of U. S. refusal to ratify it. Again, at UNCTAD in 1964, the U. S. was often the lone spokesman against poor country proposals for commodity agreements. The U. S. blindly insisted on aiding as it wished, and today this negative attitude has engendered in many poor nations enmity for the Americans. Commodity agreements seem a small price to pay for good relations.

Others have put forth arguments in moral terms. The French have concluded that the North should pay higher prices for South products simply because the South is poor and the North is rich.[65] Still others have tried to conflate morality and economics. Raul Prebisch, the Argentinian economist and first Secretary-General of UNCTAD, insists that on average terms of trade of LDC's have slipped in recent years, and that therefore the North now should compensate by paying higher prices for South products.[66] This contention has precipitated much controversy as to whether terms of trade have actually slipped, and as to the reasons for the slipping if indeed it has taken place. While the dispute perhaps has

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[65] Pincus, Trade, Aid, and Development, p. 269.

[66] Raul Prebisch, "Toward a New Trade Policy for Development," in Reshaping the World Economy, ed. by John Pincus, p. 124. A study purporting to show that terms of trade of LDC's have worsened is U. N. Dept of Economic Affairs, Relative Prices of Exports and Imports of Under-developed Countries (Lake Success, N. Y., 1949), pp. 22-23.

academic significance, it has no policy importance. The prescription that the North should pay higher prices may be justified, but whether terms of trade has worsened should make no difference. The vagaries of markets are not moral things; human welfare is a moral thing. The proper question is, should the North, which is rich, help the South (if that is possible) who is poor?

The new Coffee Agreement illustrates rather well North Cooperation in a price fixing arrangement. The United States had been a grudging signer of a 1968 agreement, helping to fell the arrangement in 1972.[67] By late last year, however, a new agreement was ready for approval. This time the United States sailed a different tack. Kissinger admitted that perhaps the time is ripe for an agreement, and other officials admitted that higher prices for coffee are a small price to pay for good relations.[68] The Coffee Agreement assigns quotas to both importers and exporters, penalizing importers for failure to buy theirs, unless they assign parts of their quotas to other producers.[69] The Coffee Agreement's 63

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[67] Wall Street Journal, Nov. 21, 1975, p. 1. After the U. S. dollar devaluation, producers asked for a raise in the price of coffee, which was quoted in terms of dollars. Stocks were low at the time and when the U. S. refused, producers naturally felt strong pressures to go outside the agreement to get higher prices. This they did, and the agreement was broken.

[68] Ibid. There were also some more traditional U. S. reasons: high coffee revenues would shore up the right-wing government in Brazil and also prevent Brazilian farmers from turning to say beans and competing with American farmers.

[69] Wall Street Journal, Nov. 28, 1975, p. 14.

members serve as a model of the clout that the producer nations can wield.

The most important aspect of a quota agreement, then, is stability. Such an agreement should perform its appointed tasks with a minimum of strain. The result would be a confidence on the part of producer nations in such schemes. Governments, to Myrdal, are "mutually suspicious."[70] Quotas could perhaps allay some suspicions.

The single most important consideration for framers of quota agreements to keep in mind is their own self-interest. The temptation to turn a neutral stabilization plan into a price raising plan can be both delicious and disastrous. The temptation must be ignored: market forces are powerful and an agreement which attempts to go beyond the limits that its organizational structure and the nature of its commodity allow will be easy prey.

Quota Agreements in Conclusion

I have just shown that quota agreements have the power to neutrally stabilize price levels, and that for a few commodities they have the power to raise prices. I must look briefly at these powers in terms of chapter 1.

Quotas certainly are more powerful than multilateral and bilateral contracts because of their potential for effecting price hikes. Yet this power is likely to be of little significance

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[70] Myrdal, An International Economy, pp. 250-251.

as I have shown. Moreover, quotas are no better than the other two at stabilization. Were it not for the third goal--the speculative one--I would be forced to conclude exactly the same things about quotas as about the other two.

Quota agreements by their nature bring all producers together in a tight bond. The market is never allowed to take over--as with multilateral contracts--and cause a relaxation of this bond. Thus it seems that quota agreements would have a greater hope of leading to more far-reaching economic union, and for this reason I must prefer them to the contract form of agreement

THE BUFFER STOCK

The last type of commodity agreement I will look at is the so called "buffer stock agreement." The name aptly belies the nature of the agreement: participant nations accumulate jointly a stock of a commodity and create a body to control it. The controlling body, equipped also with a considerable purse, independently "buffers" fluctuations in the commodity's price either by releasing part of its stock to the market or by disbursing part of its purse in exchange for additional stocks of the commodity.

Although popular in the literature, buffer stocks have been instantiated but a few times up to now. Tin has been the object of buffer stock agreements since the depression, and presently is marketed under such an agreement.[71] The cocoa market was first given a buffer stock in 1972 with the formation of the International Cocoa Organization. The Organization was ordained with the tasks of using its monetary resources to acquire commodity stocks, and to use these stocks to hold cocoa's price within stipulated boundaries. Unfortunately for those who desired stability (yet fortunately for those producers who preferred profit to stability), the price of cocoa never fell to within the bounds between which the director of the purse was allowed to buy and sell, so the buffer stock never came into being.[72] Last year

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[71] The last such agreement took effect in 1970. See Wall Street Journal, Oct. 21, 1970, p. 32.

[72] Wall Street Journal, Oct. 13, 1975, p. 14.

the agreement was renegotiated and the price boundaries raised, so that when this October sees the agreement take effect it should also see a buffer stock start to form.[73]

The 1972 Cocoa Agreement illustrates what is perhaps the most harassing problem of buffer stock agreements--predicting what demand and supply conditions will look like in the future. Cocoa producers evidently underestimated the market's strength. While this difficulty plagues all commodity agreements, it is especially sticky for buffer stock arrangements, for incorrect prediction can cleanly and quickly vitiate such an agreement: when a stock or a purse runs dry, the agreement is finished. In the case of tin, it was the stock which ran dry in 1970, as the Tin Council failed to see the upward pressure on prices.[74]

The fact that buffer stocks are so strongly subject to the basic market forces is actually the chief virtue which has been ascribed to them. As Mason puts it,

> A buffer stock does not interfere, as quotas do, with ordinary market transactions.... And unlike quota schemes, a buffer stock does not tend to prevent production from moving from high-cost to low-cost sources; nor need buffer stock operations prevent the level of prices from being influenced by changes in consumers' tastes or in methods of production.[75]

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[73] Wall Street Journal, Oct. 20, 1975, p. 23.

[74] Wall Street Journal, April 17, 1970, p. 17.

[75] Mason, p. 221.

I have already argued with Mason on the wisdom of this point. Let me say here that this aspect of buffer stocks is not a virtue (except to the North) but a reality. This is to say, buffer stocks are purely tools of neutral stabilization; they have no say in the determination of supply.

If a buffer stock is to be able to perform its task without frequent breakdown nullifying gain both in stability of prices and unification of producers, it must have both a large enough stock and a large enough purse to meet any contingency. The large purse would represent little real expense, for it could be invested. The accumulation of stocks, however, could represent a real expense.

The fact that stocks are idle does not in itself mean that they impose a cost on producers creating the stock. As Nurkse points out, buffer stocks merely "impose a steadying pattern" on stocks that would be present anyway.[76] Idle supplies can rarely not be found. Two observations point up the limitations in this argument, however.

First, it seems obvious that the average size of the buffer stock must be larger than that of all normally idle supplies. Consider first the low end of the price range. In the absence of a buffer stock, as price falls due to a weak market idle stocks accumulate too. At some point price will cease falling, yet there will still be unsold stocks. If a buffer stock had been present,

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[76]Nurkse, p. 145.

it would presumably have prevented price from falling so much. But it could only have done this by accumulating a stock larger than what otherwise existed. At the other end of the price range this effect may take place too. As price nears the buffer stock ceiling price, the stock must be large enough to insure that even with a temporary strengthening of the already strong market price will be permitted to rise no further. Were there no buffer stocks, producers finding such high prices would probably be trying to sell all they could get their hands on, leaving few, if any, idle supplies. Adding to the needs of buffer stocks at high prices is the problem of speculation. At high prices the mere threat that a buffer stock may soon be depleted could be sufficient to convince speculators that a one-way option exists, virtually insuring that the stock will indeed soon be depleted.

Thus, the initial investment a buffer stock organization must make in a commodity supply does indeed represent a real cost. A cooroborating argument can be made by using the fact that normally idle stocks are held not only by producers, but by users too. Given the assurance of stable prices, buyers would probably shift some of this burden of stock maintenance over to the buffer stock. Thus the buffer stock would have to cover for stocks dropped by both producers and consumers.[77]

The essential facts about buffer stocks, then, are these: even if negotiating issues such as location of stocks and the

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[77] Klaus Knorr, "Comments on Nurkse Article," Kyklos XI, Fasc. 2 (1958), p. 224.

apportioning of contributions can be resolved, and even if prices can be set with tne wisdom of Solomon, to be effective a buffer stock must be so large that it imposes a cost on the producers who create it.

From what we've seen so far, buffer stocks seem a poor way to organize a commodity market. They are inherently precarious and can impose significant costs on producers. Moreover, such agreements seems as well only a second rate method of establishing some centralized authority over a commodity as a rudimentary step toward integration.

The preceeding argument concerned buffer stocks used without quotas. In fact, however, quotas can easily be used with buffer stocks. Mason says that "A buffer stock could be a useful adjunct to any quota scheme."[78] And both the recent tin agreements and the new Cocoa Agreement incorporate both mechanisms.

If we look just at efficiency in stabilization, we will see little improvement as a result of the juxtaposition. Quotas mean little more than the shifting of responsibility for maintenance of price in a very slack market away from the buffer stock and onto individual producers. Nothing changes, really, including the size of idle stocks.

Quotas and buffer stocks perform their tasks in essentially identical ways: both assure that at very low prices stocks will accumulate. Beyond this, however, there is an important difference.

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[78] Mason, p. 216.

Since quota agreements by their nature have administrative bodies looking after quotas, the task will be easy for them to accomplish by simply ordering quota reductions. A buffer stock, unless it is very generously endowed, will find that in some situations its financing will not cover the cost of stocks it needs to accumulate. Thus member nations must contribute additional sums to keep the stock alive. However, collecting the needed sums in a depressed period could be a difficult task to say the least.

This is one reason why quotas by themselves are to be preferred to buffer stocks by themselves. Yet why not have the best of both worlds? For some price range a buffer stock could be relied upon to stabilize price, thereby meaning that the administrative difficulties of frequent quota changes are avoided. At the extremes of fluctuations quotas could be changed. This is precisely what the tin agreements have done in the past.

It is easier to justify such an agreement, even when its goal is only neutral stabilization, for it is more likely to attain a measure of longevity than is a buffer stock alone. The strengthened ties among producers would, we hope, have time to gel into something more substantial. For a price raising scheme, like the Tin Agreement, the same advantages are present: the avoidance of frequent quota changes could brighten the agreement in the eyes of potentially errant producers, thus shoring up what could otherwise be a tenuous agreement.

CONCLUSION

This paper has attempted to bring the methods and purposes of international commodity agreements into focus and to thus discover whether they are worth the energy which the poor countries might exert to form them. I have three main conclusions.

First, we have seen that stability is probably an unsuitable goal, for the effects of fluctuations are not likely to be felt on internal economies and that if they are felt, the fault could well lie in governmental policy.

Second, opportunities at present for successful restrictive quota agreements are limited at best. Though they are difficult to predict, long-run elasticities are probably well above unity for most primary products which would benefit the South through a price rise. In addition, the effects of increased export receipts may or may not be beneficial: flows of money into LDC's are marked for their unproductiveness while LDC governments are marked for their abilities to use additional monies to prop themselves up.

Third, if we accept the arguments of Kindleberger and Myrdal, who insist that international economic integration is an important key to development, then we can look at commodity agreements in a new light. The criteria for success would now be unity--how much centripetal force is exerted by the agreements on each producer--and longevity.

Bilateral contracts fail in this third goal; multilateral

contracts do somewhat better. Yet we may be distressed by the fact that multilateral contracts could promote closeness of ties between producers and consumers and not merely among producers. Myrdal stressed the importance of poor nations going it alone, wielding their collective power and integrating their economies. Is it realistic to assume that the poor nations can swing much weight? That is a question which others must settle. If the answer is yes, however, then we may be correct in believing that multilateral contracts are undesirable, that they promote the perpetuation of the South's sycophantic posture. We would consequently favor quotas or quotas modified by buffer stocks.

If the answer is no, then perhaps we should favor multilateral contracts for the close relations with the North and attendant aid possibilities that could result alongside integration. Similarly, we should favor quota agreements and buffer stocks in which the North participates.

Yet even recognizing the potential benefits of aiming for the third goal, I must conclude that commodity agreements in general are of dubious value for the poor nations. The link between ICA's and integration is a product of speculation and awaits further study.

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