The UNCTAD Integrated Programme and Macro-economic Considerations

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The Integrated Programme for Commodities

1. The Integrated Programme for Commodities, including the idea of a Common Fund, was mooted by the UNCTAD Secretariat late in 1974, revised thereafter and endorsed by UNCTAD IV for further negotiations. It represents a package approach to the solution of the world's commodity problems. The Programme, as outlined in the substantive Resolution 93(iv), sets out seven objectives, including avoidance of excessive price fluctuations, improvement and sustenance of the real income of individual developing countries, improvement of market access and reliability of supply for primary products and the processed products thereof, diversification of production and expansion of agro-processing in developing countries, encouragement of research and development to improve the competitiveness of natural products vis-a-vis synthetics, and improvement of market structures and systems of marketing, distribution and transport in the field of primary commodities. In a convenient summary form, the objectives are (i) to improve the terms of trade of the developing countries and to ensure an adequate rate of growth in the purchasing power of the aggregate earnings of their exports of primary commodities, while minimising short-term fluctuations in these earnings; and (ii) to encourage more orderly development of world commodity markets in the interests of both producers and consumers. The operational part of the programme consists essentially (i) of promoting international producer-consumer commodity agreements and the setting up of internationally managed buffer stocks covering 18 commodities of central interest to developing countries (the 'core' products being cocoa, coffee, tea, sugar, hard fibres and manufactures, jute and manufactures, cotton and yarn, rubber, copper and tin, i.e. those products of which developing countries are the major or the only exporters, constituting in sum about 70 per cent of world exports);[1] (ii) of the establishment of a Common Fund (amounting to 6 billion dollars) to provide the financing needed for the acquisition and maintenance of the stocks (mainly for the ten core commodities), and for some other purposes included in the programme (the 'second window').

2. The Common Fund's primary function will be to lend to individual commodity organisations operating international buffer stocks and the Fund will expect to be repaid as the organisations acquire funds through stock disposals. It will not in itself act as a commodity trading organisation.

Background of the Programme

3. The historical rationale of the Programme is fairly obvious. In the post-second world war period, primary commodities have been the least stable and dynamic sector of world trade, and from the point of view of the developing countries the existing system of world trade, operating under a (quasi-free) market mechanism has been patently inefficient and unjust.

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[1] The list is open-ended, and includes in the first phase all the products suggested by the developing countries in the Manila Declaration in February 1976, i.e. bananas, bauxite, iron ore, manganese, meat, rock phosphates, tropical timber, and all vegetable oils (including olive oil) and oilseeds, besides the ten core commodities.

Between 1950 and 1974, the participation of developing countries (excluding the oil-exporter countries) in world exports decreased from 28 to 16 per cent, and over 1952-72 when world trade rose by over 7 per cent per year, the increase in exports of developing countries was only about half of that. The widening disparity between per capita income levels of developed and developing countries from 10:1 in the early 1950s to 14:1 to-day - a reflection of such trading patterns - has combined the traditional concerns of the sixties (growth and industrialisation) with the current concerns of depauperisation and equity in dialogues on a New International Economic Order. While it is recognised that trade is a positive, and not a zero-sum, game for the two groups of countries, it does not follow from this that there is no exploitation through trade, and indeed trade is held by many to have been the goal of colonialism. Thus one school of thought which may be associated with Hobson through to Marx, Lenin and their modern followers have considered trade as a major vehicle of imperialist development and exploitation. According to this view, industrialised capitalist countries developed their poor-country sources of raw materials under a colonial or neo-colonial environment and have always tampered with the 'rules of the game' in the world commodity markets according to their own requirements of price and income stabilisation, e.g. through national action (subsidisation and protection to domestic producers), side-tracking the need for trade liberalisation. The other group, stressing the political or idealistic reasons for colonialism, has averred that trade has been the outcome rather than the prime mover of colonialism, but they too have not questioned the actual existence of a close association between the two (Kleiman, 1976, p.459).

4. The low-income countries bent upon a policy of development through self-reliance are thus deeply concerned not only about the international primary-commodity prices, but also about their particularly vulnerable status in the world trade and economy. These countries, when faced with the problem of burdensome gluts, do not have the financial and other resources at their command to intervene in the commodity markets effectively. They are conscious of this disadvantage vis-a-vis the powerful developed-country importers in terms of market structure and control and financial power - a situation largely engendered by the market mechanism under conditions of unequal bargaining power. The inevitable tendencies to conflict generated by such circumstances need hardly be stressed.

5. Thus while the ideal of a free, just and rational world economic order based on the competitive market system may still be attractive to many to-day, our experience with the actual course of development of the world economy is surely enough by now to show that the ideal is a chimera. The orthodoxy and inefficiency of laissez faire and the aberrations in the world trade regime were assailed by no less a person than Lord Keynes, indisputably the greatest economist of this century, albeit a rather 'unfaithful' disciple of Alfred Marshall in matters of free trade as in several other respects. Keynes' concept of the criteria of an efficient market system was essentially that which would guarantee an adequate growth of output of raw materials and agricultural products for consumers ('freedom of access'), without undue price or income instability for producers ('freedom of sales'). Putting forward in December 1942 what was to be the British proposal for primary-commodity prices in the course of the inter-allied negotiations on the future organisation of the world economy in 1943, Keynes (who was then consultant to the U.K. Treasury and major architect of the post-war international financial co-operation)pleaded for centralised international action, including an international multi-commodity organisation, "capable of effecting a vast improvement of system, at any rate in the case of the great staple raw materials" (Keynes, 1942, pp. 299-315). In his original draft of the proposals too, Keynes had called for the internationalisation of the American

Vice-President Wallace's 'ever-normal granary'. After a lapse of more than three decades the Integrated Programme clearly presents another challenge to the current operations of commodity markets, although like the Keynesian proposals it does not contain the seeds of a complete alteration in the commodity trading system and of replacement of multilateralism by bilateralism and restrictionism. It is also important to note that the Integrated Programme recognises the distinctive characteristics of individual commodities, and indeed the commodity-by-commodity approach has not been discarded as long as it is incorporated into the wider Integrated Programme. And yet another foremost economist of the day, Lord Kaldor in his Presidential address to the Royal Economic Society in June 1976 strongly pleaded for the creation of international buffer stocks for all the main commodities as the "most promising line of action for introducing greater stability into the world economy" (Kaldor, 1976, p.713).

Trends in Export Prices and Earnings

6. It may be useful to present at the outset a concise review of the post-war trends and fluctuations in the prices of and earnings from exports which have adversely affected the developing countries and which the Integrated Programme (along with its centrepiece viz. the Common Fund) seeks to rectify. A recent study undertaken by the Commonwealth Secretariat (1976) throws some light on the price situation. The study was based on UN time-series data on export prices and terms of trade, and employed linear regression equations to estimate the time-trends, and the standard errors of the regression coefficients divided by the means as the indices of instability. (With index numbers of prices as constituents of the series, the trend rates of growth were yielded by the regression co-efficients of the linear time-trend equations). The index of international prices as compiled by the World Bank was used to convert current export prices into constant or "real" terms. The findings of the study relating to commodity prices were as follows:

1. Considering the more or less normal period of 1954-72 (i.e. excluding the years of the short-lived Korean and the recent commodities boom), the real prices of primary exports as a whole dropped annually by about 1.3 per cent, the rate for developed and developing countries being 0.7 per cent and 1.8 per cent respectively. The instability indices for the two groups of countries were 0.19 and 0.21 respectively.

2. The terms of trade of all primary-commodity exports (defined as the ratio of the prices of primary commodities to those of manufactured exports) declined at an annual average rate of 1.5 per cent over 1954-72. The terms of trade of primary exports for developed and developing countries declined on average by 1.4 per cent and 2.2 per cent respectively.

3. The over-all terms of trade of the developing countries declined by about 0.56 per cent annually compared with an improvement of 0.58 per cent recorded by the developed countries over the period, i.e. 1954-72. All the above estimates were found to be statistically significant.

7. In a more recent study based on UNCTAD data Behrman (1977) shows that the linear trends in deflated prices of the ten core UNCTAD commodities (and 15 other commodities) mostly over the period 1950-75 (i.e. including

the Korean war peak at the beginning and the 1972-74 boom at the end) have tended to be negative. Thus significantly negative estimates were obtained for six of the ten core commodities and 21 of the 32 total commodities included in the exercise.

8. To the extent commodity-export price fluctuations are not compensated for by changes in the volume of exports in the opposite direction, the developing countries have also suffered from particularly sharp fluctuations in their export earnings. Recent studies by Mathiesen and McKinnon (1972), Naya (1972), Glezakos (1973), Massell (1970), Lawson (1974), Leith (1970) and Knudsen and Parnes (1975) have brought out that instabilities in export earnings for developing countries were substantially larger than for developed countries, although it is difficult to estimate precisely the contribution of commodity-export fluctuations to the instability in aggregate export proceeds. These studies did not consider the period of the recent commodity boom and crash during which period the relative instability in export earnings for the developing countries was likely to have been aggravated, after a modest decline in the sixties. The following table reproduced from the Report of the Select Committee of the House of Lords on Commodity Prices (1977, Vol. I, p. ciii) gives in a summary form the extent of instability of export proceeds of the developing as well as developed countries.

Average Degree of Instability of Export Proceeds A (1951-70) and B(1963-75) Various Indices of Instability

(standard deviations in brackets)

	Index	I	II	III
(A)	Developing countries	9.66 (4.78)	17.67 (11.69)	7.47(3.28)
(B)	Developing countries	13.50 (8.76)	21.02 (17.31)	12.62 (7.72)
(A)	Developed countries	5.72 (2.46)	10.05 (3.45)	4.39 (1.54)
(B)	Developed countries	7.50 (3.28)	9.50 (3.64)	9.35 (5.30)
(A)	Ratio developing/developed country instability	168%	176%	170%

Notes: Instability Indices used:

(1) The square root of the square of the percentage deviations from a five-year moving average centred on the mid-year.

(2) The square root of the square of the deviations from a log linear trend.

(3) The absolute % deviations (ignoring sign) from a five-year moving average centred on the mid-year.

A. 1951-70, 26 developed countries, 90 developing countries.
B. 1963-75, 26 developed countries, 66 developing countries.

Source: Basic Data for (A) from UN, Yearbook of International Trade Statistics (1974 and various issues) and for (B) IMF, International Financial Statistics (August 1976 and various earlier issues).

The Integrated Programme and Export Instability

9. The two major immediate objectives of the Integrated Programme are (a) the stabilisation of the relevant international commodity markets and (b) improvement of the real income which developing countries receive from their primary-commodity exports. Stabilisation implies not only the avoidance of excessive price fluctuations but mitigating the fluctuations in export earnings as well. Export earnings could be increased by price stabilisation when fluctuations originate primarily on the supply side or by increasing the price when the demand curve is price-inelastic.[1] The adverse effects of price and export revenue fluctuations on the economies of developing countries are widely acknowledged and therefore, to the extent the UNCTAD objectives of price and income stabilisation are realised under the Integrated Programme, important gains will accrue to the developing countries. In the sections that follow we analyse these likely gains and show that stable prices and earnings are conducive to global welfare.

Gains to Developing Countries: Investment in Commodity Production

10. By eliminating uncertainty price stabilisation would lead to a more favourable climate for investment in the commodities sector and ensure a more ample supply of commodities to the world. Uncertainty over price expectations erodes the incentive to invest in commodities production and it discourages new (potentially efficient) producers from entering the commodities field. Erratic price gyrations complicate investment planning as producers cannot distinguish between short-term changes and long-term trends in demand or supply. This precludes them from the desired adjustment to capacity to ensure that output corresponds to the technically optimum point on the long-run average cost curve. During periods of low demand and prices productive capacity remains unutilised and during periods of scarcity and high prices there may be unjustified investment which cannot be sustained in the long run. Stable prices could therefore be conducive to greater efficiency, and the more favourable (and stable) are the terms of trade to the primary-exporting developing countries the more current technological advance will be exploited through new investment and the faster the growth of commodity output. In fact, a stable increase in mineral and agricultural prices, as compared to prices of manufactured goods is essential owing to the relative scarcity of natural resources, which makes them more costly as time goes by.

11. Price fluctuations also affect cash flow and the ability of producers to finance investment. The impact is likely to be the more severe on small producers in that they have little internal resources to fall back upon in times of a price depression as well as limited creditworthiness. On the other hand, stable and remunerative prices would encourage them to produce steadily; numerous empirical studies have exploded the myth that peasant producers in developing countries do not respond to incentives. There is ample evidence to show that they do have a positive price-elasticity of supply response and would react rationally and substantially to favourable prices in the absence of undue uncertainty and resource constraint, although there may still be fluctuations in their output because of stochastic factors like weather. Additional resources provided by external agencies like banks or

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1 It is understood that the Statistics Division of the British Ministry of Overseas Development has recently conducted a study which concludes that on balance stabilisation of export prices through buffer stocks of selected major export commodities is likely to stabilise the export earnings of producer countries.

government financial institutions would be helpful but price expectations must be right if the availability of credit is to lead to increased investment and output (see for instance, Commonwealth Secretariat, 1977a, p.14).

12. The distributional and welfare impact of price fluctuations on developing countries from the production side will depend largely on the way their commodities sector is organised. If the large-scale or plantation structure dominates and there are minimum-wages and employment legislation, the effects of instability may be more on the profits of producers (and government revenues) than on the well-being of workers. But if small holdings are important, and there are no agencies of public intervention e.g. marketing boards, the impact would be the most severe on peasants and labourers. Even in the former category there may be adverse repercussions on labour income if the labour laws and trade unions are ineffective as is very often the case.

13. For some commodities with long gestation lags, e.g. tree crops and minerals, there is a long investment-output cycle and the effects of price gyrations on investment cause serious economic loss. To the extent that price stability mitigates the investment cycle the resultant output cycles will also be reduced. Furthermore, effective price stabilisation under the Integrated Programme could ensure resource transfers and mobilisation policies meant for diversification of production (and exports) to solve cases of chronic over-production or declining demand. This could be reinforced by direct assistance through the 'second window' operations of the Common Fund.

Price Stability, Natural Products and Synthetics

14. An allied issue concerns the competition from synthetic substitutes of natural products like jute, sisal and other textile fibres, rubber and copper. In the case of these products reduced price fluctuations could surely contribute to a steadier growth in demand, output and export earnings. Price fluctuations exacerbated by speculation adversely affect long-run demand by encouraging substitution of simulated goods by risk-averse users (manufacturers) who prefer a stable price for materials. This process is largely irreversible in that substitutes generally require heavy fixed capital investments which continue to run even when prices of natural products decline. The Integrated Programme could ensure stable, competitive prices and availability of natural products, thus aiding in the maintenance of their market shares and possibly in recapturing some of the past volume losses. To be precise, the possible gains will result from two sides: (1) by ensuring convenience to users through a reduction in the range of fluctuations and (2) by holding maximum prices below the point at which investments in substitutes appear profitable.

Gains from Improved Foreign Exchange Earnings

15. An improvement in export proceeds will affect the economy of developing countries in two ways. There is in the first place the direct effect on the incomes of the producers in the export sector. Secondly, there are the indirect (foreign-trade) multiplier and accelerator effects. It may be expected that these effects will stimulate the rest of the economy and increase the GNP, the gains in national income being more than proportional to the initial changes in the export proceeds.[1] Moreover,

[1] Sudden upsurges in export earnings may, however, cause inflationary pressures for the domestic economy.

the export earnings of low-income countries are often crucial to the implementation of the development plans of their national governments. Price stabilisation could ensure steady export earnings and through this the developing countries' capacity to maintain uninterrupted flow of imports of the necessary capital (and consumer) goods for planned economic development. Otherwise, governments will have to adopt highly restrictive foreign exchange reserve policies, particularly in those countries which have inadequate reserves and large outstanding debts. At any rate, the international borrowing capacity of developing countries is relatively limited, and they can ill afford to maintain sizeable foreign exchange reserves for cushioning unanticipated declines in revenues from major primary-commodity exports. Such shortfalls in receipts may lead to massive balance of payments deficits which cannot be rectified by currency devaluation. If borrowing on acceptable terms is ruled out, the only alternative is stringent import control which, as indicated above, will inhibit planned economic progress. The volatility of the export earnings of developing nations, as earlier hinted, has increased sharply in the seventies, and this has disrupted their economic growth in spite of meticulous planning.

Stable Prices and Government Revenues

16. Finally, stable commodity prices are likely to have a significant impact on government revenues because of the major contribution that primary exports make to the exchequer through export and direct taxes in many developing countries. This would mitigate difficulties at the macro-economic level in government spendings on development projects and social welfare schemes which are becoming increasingly important and politically imperative in the developing world. Particularly grave are the consequences of commodity price slumps on employment in the socialised sector.

17. A sudden upsurge in commodity prices is no better for the low-income countries in this respect. As Alister McIntyre, the former Secretary-General of CARICOM, observed in the course of his evidence before the Select Committee on Commodity Prices, "Windfall increases in revenues generated by the boom constitute an irresistible temptation to governments to step up expenditure and employment in areas regarded as vital to national development. This is particularly so under conditions of worldwide inflation where a decision not to spend today means a smaller command over real resources tomorrow. As the level of public sector activity expands, an irreversible build-up of expectations tends to take place which represents a potential threat to development and social stability once the boom is over. On the whole, if the developing countries are increasingly going to promote their development through a process of self-reliance, then they need commodity arrangements that will facilitate more orderly planning and the prudent management of local resources" (House of Lords, 1977, Vol.III, p. 572-73).

18. Thus *a priori* arguments strongly suggest that greater (and surer) access to foreign exchange, *ceteris paribus*, raises the probability of increasing the rate of investment in developing countries which means higher rates of economic growth, given the neo-Keynesian (Harrod-Domar) capital-centred framework of analysis[1], higher employment through the operation of the employment multiplier, and increased economic welfare. The results of some empirical studies also tend to support this hypothesis. MacBean in a study that has been much-publicised found no significant statistical relationship between the growth rate of the real investment and real GDP on the one hand and export instability on the other over the 1950s in a sample of developing countries. But the weight of *a priori* reasonings on the effects of export instability was so convincing that he was constrained to make the following guarded statement about his findings: "The study has not established that fluctuations in export earnings do *no* damage to under-developed countries, but it has shown that the contrary view of grave internal troubles arising inevitably from export instability is not upheld by examination of the readily obtainable evidence" (MacBean, 1966, p.341). Indeed, MacBean ends his treatise by recommending methods for stabilising export earnings.

19. Later, Erb and Schiavo-Campo (1970) studied time-series data, country by country, for a sample of 44 less-developed countries to adduce a significant negative relationship between their export instability and GDP over the period from 1954 to 1966. Similarly, Kenen and Voivodas (1972) reported a strong, plausible statistical relationship between export instability and the level of investment. Their regression results covering 1950-66 and 1956-67 and 50 countries showed that instability did appear to reduce investment. Also, Glezakos (1973) found that export instability had an adverse effect on economic growth. The results of his regressions of real per capita income growth rate on export instability show that over 1953-66 instability seemed to have a significant negative effect on the real per capita income growth rate of the developing countries included in the sample. Specifically, export instability was responsible for about one-fourth of the observed variation in the income growth rates of the countries considered. Finally, Knudsen and Parnes in a recent study (1975) reported significantly positive relations between export instability and the rate of GDP growth. To test the effects of instability on growth, they calculated regressions using data on growth rates of GNP and GNP/per capita, and average levels of instability for the years 1960-69 for 28 countries. The resulting equations indicate that instability had a significant relation with growth of both GNP and GNP/per capita in the selected countries. A World Bank analysis revealed that for countries with high growth rates in exports (greater than 6 per cent a year) fluctuations were not detrimental to GDP growth, but for countries which experience low export rates of growth, fluctuations were a decisive handicap (House of Lords, 1977, Vol.III, p.561).

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[1] Under the simplest Harrod-Domar formulations, which is a logical extension of the Keynesian model, $K = rY$, where K is the capital stock, Y is national output and r is the (constant) capital-output ratio. Then $I = \Delta K = r.\Delta Y$, so that Q (the ratio of investment to gross domestic product) $= r.\ Y_g$. Q and Y_g (rate of growth of gross domestic product) should be directly related. Of course, there are factors that could prevent higher investment from resulting in economic growth in developing countries. Uncertainty in the planning horizon could cause investment to seek shorter-term and less productive investments. Or investment could be made primarily in infrastructure, which would yield higher growth rates only over the long term.

Since most developing countries rely heavily on primary commodities whose growth rates have been sluggish, these findings imply that fluctuations in export earnings jeopardise their economic performance. And obviously, a primary target of the Integrated Programme will be to stabilise the prices of such commodities.

Effects on Developed Countries

20. Perhaps even more important, in the context of the current state of negotiations on the Integrated Programme and the Common Fund, is the fact that important and diverse macro-economic gains will accrue from the Programme to the developed countries as well. It is likely that almost all sections of the community in these countries will benefit from the price and revenue stability that the Programme will usher in.

Gains to Consumers

21. Price uncertainty creates costs which fall on consumers in respect of planning of family budgets. Consumers in industrialised countries do not gain significantly when commodity prices slump (as will be discussed in a later section) but lose when prices turn up sharply. The consumers would accept as fair' reasonably higher (but stable) prices that might result from the Integrated Programme because the commodities in question represent a small proportion of their budget. It is estimated (Green, 1977, p.27) that the 18 commodities are at most 4 to 5 per cent of the consumers' market basket. Moreover, the effects of higher export prices on consumer prices can be partly or wholly offset by tariff reductions in the case of some commodities. And historically, consumers have focussed more attention on the question of stability which seems to reflect significant risk aversion, since under some circumstances price stabilisation *per se* would reduce the consumers' surplus.

Gains to Manufacturers and Traders

22. Industrial fabricators buying primary materials as inputs for their own manufactured products generally dislike volatile commodity markets which inhibit them from planning ahead. Most manufacturers prefer to hold the prices of their products relatively stable over a considerable period of time rather than apply frequent increases and reductions. Commodity price fluctuations have adverse repercussions on their cash flow if the cost of primary materials accounts for a large part of their aggregate production costs. It also makes for uncertainty when tendering for contracts (House of Lords, 1977, Vol.I, p.xxxiv). Thus some manufacturers will benefit directly from stable prices of commodities, and to the extent that they increase investment because of lower risk, consumers would gain from additional supplies.

23. Traders in industrialised importing nations would also benefit from the Integrated Programme. Although they may complain occasionally, they are in general strongly in favour of international commodity arrangements. This is because they are likely to gain on two grounds from price-stabilising measures: 'the costs of information' about prospective availabilities are lowered and correspondingly the risk of losses due to stock shortfalls are also less (Waters, 1974, p.786). The cost of price stabilisation may be insignificant to them if the consumer demand for their product is sufficiently price-inelastic as is the case with all the major commodities included in the Integrated Programme. However, commodity market intermediaries, e.g. brokers and speculators in terminal markets, would lose (probably quite heavily in the long run) from price stabilisation, and their opposition to the Integrated Programme is well known.

24. There may be much larger macro-gains from price-stabilisation to industrialised countries through the reduction of inflationary pressures which have become virtually endemic in modern capitalism. Most contemporary economists, apart from the orthodox or the 'Friedmanite' monetarists concede to the eclectic neo-structuralist view that an increase in import prices has both direct and indirect upward effects on the general price level in developed (and some significantly 'open' developing) economies.[1] The sophisticated multinational model of the transmission mechanism constructed by Project LINK, which welds together the national econometric models of 31 countries or regions through the use of a matrix of international trade, uses import prices as directly determining domestic prices in almost all the national models.[2] A priori, the direct effects of import prices of primary commodities on the developed importing countries will be through price increases of imported consumer goods of primary origin. Such increases may almost immediately be reflected in the level of consumer prices in those countries. Secondly, price increases of supplementary inputs of raw materials would be reflected in manufacturing costs and passed on by the producers into the prices of final goods presumably with some time lag.

25. The actual experience of inflationary developments in some industrialised countries bears out this hypothesis concerning imported inflationary shocks from rising commodity prices. In the United States, prices moved up sharply in the first half of 1973 and continued increasing through the first half of the following year. This acceleration in the rate of American inflation could be traced to a number of factors, but "arithmetically the primary stimulus came from the near-explosion in the retail prices of food and the prices of internationally traded commodities" following worldwide demand and low inventories for food and other primary commodities (Shapiro, 1977, p.281). Popkin (1974) estimated that a 14.5 per cent increase in the price of non-food and non-fuel raw materials caused a 1 per cent increase in the consumer price index of the United States (Waelbroeck, 1976). And Behrman rightly holds that this is an under-estimate of the likely impact of change of world commodity prices on American inflation in that it takes into account the effect of the proportion of commodities which are produced only in the developing world. Moreover, "both estimates are on the low side to the extent that there exist substantial oligopolistic industries which use commodity price rises to implement 'cost-justified' increases in their own prices" (Behrman, 1977) - a very important phenomenon as we shall observe subsequently.

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[1] Whilst few would deny that inflation is a monetary phenomenon in the sense that it is accompanied by a rise in the quantity of money, many would deny that its origins are monetary.

[2] In most of the structural models for developed market-economies under Project LINK wages are explained by some version of the Phillips curve, output is determined by aggregate demand, employment is determined as a function of output through short-run production functions, and demand prices are directly determined as a mark-up on unit labour costs with an allowance for demand pressures, as they are reflected in unemployment or utilisation rates.

26. Similarly, in Japan the period mid-1972 to 1974 witnessed a galloping inflation the like of which was not experienced since the monetary adjustment of the immediate post-war years. Among imports non-oil primary commodities like foodstuffs, lumber and iron ore registered the highest price increase prior to the oil crisis and after the crisis the price of crude oil increased very sharply. The direct effect of the rise in the import price index on the wholesale price index amounted to 1.6 per cent for 1973 and 3.7 per cent for the first half of 1974 against total increases of 15.9 per cent and 17.8 per cent respectively. However, if the indirect effects through higher costs of production or even through the rise in the cost of living and in wage rates were considered, the inflationary impact of the rising costs would have been much greater. According to an estimate prepared by the Bank of Japan, the direct and indirect effects of the rising costs of imports accounted for 4.1 per cent in 1973 and 9.4 per cent in the first half of 1974 of the rise in the wholesale price index, i.e. about one-fourth to one-half of the total increase was attributable to imports (Komiya and Suzuki, 1977, p.317). In sum, rising prices of imported raw materials were a major cause of the inflation in Japan contributing directly and indirectly to the rise of wholesale prices.

27. Generally speaking, the sharply rising commodity prices in the course of 1972 and 1973, which themselves resulted partly from the rapid recovery in the industrialised countries, was followed in turn by a discontinuous cost (wage)-price spiral in these countries because of the existence of oligopolists and of powerful trade unions. Since price adjustments under oligopoly are difficult and complicated, producers may use commodity prices as well as wages as the basis for such adjustments, and inflationary expectations intensify the wage-price spiral. Lord Kaldor strongly made out this point in his Presidential address to the Royal Economic Society.

28. What adds to the complexity of the situation is that sharply increased primary-product prices hamper economic expansion in the industrial economies directly, because through their inflationary (and balance of payments) impact they provoke recessionary macro-economic (fiscal as well as monetary) policies. Such policies choke off long-run capital formation leading to a rise in unemployment and loss in output, and in turn adversely affect the demand for and prices of primary exports. The experience of the years 1974-75, when the world witnessed the most severe recession of the post-war period, would readily bear this out. Largely as a result of the reduction in industrial demand and unemployment (leading to curbed imports) the average price of the primary commodities exported by the developing countries levelled off in the second half of 1974 and began to recede in the first half of 1975. "By mid-year the price relationship between the manufactures exported by the developed market economies on the one hand, and the foodstuffs and non-ferrous metals exported by the developing countries, on the other hand, returned to the 1963 position" (UN, 1976, p.12).

29. A steep fall in commodity prices would not, however, lead to a reduction in inflationary pressures in industrialised countries. Generally, wages which move up alongside the rise in commodity prices do not decline with the fall in commodity prices during the downswing of the trade cycle so that there is a 'ratchet' effect on real wages through the cycle. This is because of reluctance of industrial workers to acquiesce in any cut in their living standards. The increasing practice of introducing cost-of-living clauses in wage (and salary) contracts implies that price increases resulting from short-term commodity shortages tend to raise costs of production permanently.

30. And sharp declines in commodity prices far from encouraging the use of commodities by the industrial sector in developed countries has the very opposite effect. The fall in demand for industrial products originating from the primary producers (both in the developing and the developed world) more than neutralises any stimulus to industrial demand in developed countries on account of the rise in real incomes of urban workers from the fall in food and commodity prices; the rapid fall in commodity prices according to Lord Kaldor ushered in the greatest industrial depression in history in 1929. And as Sir Harold Wilson pointed out, "before the war Sir William Beveridge and I produced evidence that every industrial slump in Britain, every increase in unemployment for the previous 100 years, was associated with a collapse in primary prices in countries from whom we imported much food and raw materials" (HMSO, 1975, p.3).

31. Essentially,therefore, violent commodity price fluctuations show up in persistent world inflationary pressures because industrial prices are largely non-competitive and determined on a cost-plus-mark-up basis by oligopolistic firms in the developed countries. Such fluctuations also dampen industrial activity and living standards in these countries, and create an extra burden on their balance of payments. This pro-inflation and anti-growth (and anti-employment) ratchet asymmetry is aggravated by speculation. Historically, periods in which industrial production grew fast in the capitalist world were periods in which commodity prices were stable. For centrally planned, socialist countries the nature of the impact of commodity price fluctuations is basically the same, although its extent is less severe in that the adverse effects can be offset more effectively by domestic measures to regulate demand. Some of the violent impact of the surge in commodity prices in 1973-74 were felt in the centrally planned block as well, in the form of an economic slow-down.

32. It behoves a rational international community to devise generalised commodity agreements including buffer stocks, as visualised in the Integrated Programme, which eliminate pronounced commodity price fluctuations and the capricious redistribution of revenue between producers and consumers that result from such fluctuations. This is particularly imperative at this juncture when there is a continuing danger that "the rise in commodity prices will bring in its train a new inflationary wave in the industrial countries, causing the repetition of the same kind of process as we experienced in 1974 and 1975, but starting from much higher levels of unemployment" (Kaldor, 1976, p.712). The growing economic interdependence of the United States, Western Europe and Japan, carrying with it a synchronisation of their business cycles and the international dimensions of the inflationary problem have made commodity price stabilisation a most crucial policy issue. The stabilisation mechanism as contemplated under the Integrated Programme will be switched on when commodity gluts are just building up - the authorities of the various individual buffer stock schemes intervening to buy commodities. The value of these purchases would be a net accretion to the purchasing powers of commodity producers and the investments in stock acquisitions will have a substantial multiplier effect. These will boost the demand for industrial exports ensuing from primary producers which in turn will encourage investment in industrialised countries. In times of scarcities the policy will be reversed in an orderly manner through stock-selling operations. Such a stabilisation policy is bound to mitigate the destabilisation of investment(and output) that results from the fluctuating profitability and planning uncertainty in the industrial sector of developed countries, and create a dynamic welfare gain for such countries in terms of reducing the swings of the customary business cycle. It will also contribute significantly to the elimination of the vexed phenomenon associated with 'stagflation' in the capitalist world.

The Integrated Programme and Utilisation of Petro-Dollars

33. The Integrated Programme could also help in the smoothing out of international capital flows, and the recycling of the big balance of payments surpluses of the OPEC nations - surpluses of petro-dollars which are likely to accrue for years to come. If the oil States with these surpluses for external investment throw their weight behind the Integrated Programme and the Common Fund, there will be benefits to all concerned. Several OPEC members need investment outlets with some spread of risk and moderate return, and there has been a growing willingness on their part to widen the scope and lengthen the period of their investments, thereby preventing the great bulk of funds from flowing into short-term deposits (e.g. bank deposits and American and British Treasury Bills) with all the disruptions that once threatened the world banking system. OPEC countries are members of the Group of 77 and their support to the Integrated Programme in the form of readiness to contribute to the Common Fund was of considerable significance for the outcome of the commodity deliberations at UNCTAD IV. In a statement to the recent Geneva Conference on the Common Fund, the Director-General of the OPEC Special Fund said that loans to the Common Fund might be considered as possibly a sound investment of liquid assets. The delegate of Venezuela subsequently confirmed that OPEC would be contributing a substantial sum to the Common Fund over and above member countries' contributions, as a capital subscription or as soft long-term loans, presumably at rates less than the eight per cent or so obtainable on World Bank or syndicated Eurocurrency securities. The integrated character of the UNCTAD scheme increases the probability of substantial financing from the OPEC with its favourable repercussions on the world economy both in the short and in the long run.

Macro-Effects of the Integrated Programme: Empirical Studies

34. There has been little formal discussion of empirical nature of the possible macro-economic effects of the Integrated Programme, and a recent quantitative study by Behrman (1977) merits particular consideration in this connection. It ought to be noted, however, that Behrman's paper is a 'pre-publication' version and may be revised subsequently. Therefore it is appropriate and fair that his findings be treated with due circumspection.

35. The basic object and approach of the study can be summarised as follows: Applying econometric commodity models developed by the author (Adams and Behrman, 1976) and the Net Present Value Criterion, the study simulates the operations of buffer stocks designed to keep prices from fluctuating outside of a range of 5 per cent and 15 per cent on either side of the known secular trend for the market-determined price over the last quarter century. (The secular trends in deflated prices for the selected commodities - mostly over the period 1950-75 - are calculated by means of linear regressions on the basis of UNCTAD export price indices and OECD GDP price deflators). The simulations replay the historical period 1963-72 as if these buffer stocks had then existed for a group of eight of the UNCTAD-identified ten core commodities (coffee, cocoa, tea, rubber, jute, sisal, copper and tin) as well as five other products (wheat, rice, wool, bauxite and iron ore).

36. Central to the simulation model is the identity which holds between private stocks of (individual) commodities, and production, demand for current use and buffer stock purchases and sales. Current private stocks are equal to stocks in the previous year plus current production minus demand, and plus/minus buffer stock purchases and sales. Through changing stocks the buffer stock agency can alter private inventory levels to keep

prices within a desired percentage of the secular trend. The prime determinant of the deflated price is hypothesised to be the ratio of private inventories to world demand in a log-linear function with a secular time-trend. On the demand side, traditionally formulated equations link demand to income and price. The general specification for demand posits that per capita demand is a log-linear function of deflated prices (with a distributed lag), per capita GDP in the consuming areas and a disturbance term. Because of differential responses across country types, three such functions are estimated for developed, developing and centrally planned economies. It is through these price responses (elasticities) that the buffer stock programmes affect demand. On the supply side the underlying theory is the traditional agricultural supply response to price. Thus production is functionally related to expected real price with distributed lags, a time trend to represent secular shifts due to technological change, development of infrastructure etc., weather and a disturbance term. Particular attention has been given in the estimation on catching the appropriate lag structures which in many cases reflect the special characteristics of the individual commodities. On the supply side this involves attention to the natural lags involved in developing new production, and on the demand side it involves the time lags in patterns of consumption or of substitution between natural products and synthetic substitutes. The equations - the statistical significance of the parameters of which are all tested - yield short-run and long-run elasticities of demand and supply for various commodities. On the basis of this model the order of magnitude of required buffer stockpiles is obtained.

37. The present discounted value of a buffer stock operation is taken to be the sum of three components: (1) the (negative of the) present discounted value of the initial commodity stock (if any). The initial commodity stock is just of sufficient order to enable the buffer stock manager to always defend the ceiling over the period of the simulation; (2) the present discounted value of all activities (i.e. revenues minus expenditures) of the buffer stock over the period of its operation. Revenues are from sales at the price ceiling; expenditures are from purchases at the floor price, transaction costs (a constant percentage for the average stocks held each year) and a stock deterioration (at rates proportional to quantities); (3) the present discounted value of the stocks still held at the end of the decade. All rates and ratios (i.e. for transaction costs, storage costs, deterioration) are assumed to be constant in real terms at levels suggested by UNCTAD. The initial and final stocks are valued at the average prevailing market prices in the year before and year after the decade of buffer stock operation respectively. All values are discounted to the start of the period (although in 1975 prices) by using a real discount rate of from 2 to 5 per cent (implying a nominal rate of 8 to 13 per cent at current inflation rates).

38. The findings of the study show that the net benefits of the buffer stock programme would accrue not to the buffer stock agency itself but instead to consumers and producers of the commodities concerned and, in addition, to the economies of their respective countries. (Indeed, there would be a net cost from buffer stock operations, estimated at a total present discounted value of under 2 billion dollars for the eight core commodities over the ten-year period). These benefits are the following: Total revenue of the producers in developing countries (obtained by weighting the present discounted value of real gross revenue gains for each commodity by the share of the developing-country output of that commodity) would rise as a result of price stabilisation (although they would fall for some commodities e.g. copper and tin), given the supply and demand conditions incorporated in the commodity models. Price stabilisation of the core commodities would thus

create a modest additional resource transfer to the developing countries of 5.4 billion dollars in present discounted value (24 billion dollars if all the selected commodities are considered);at the same time it provided more certain prices for consumers. Thus a negative value for buffer stock operations does not mean that they are undesirable from the point of view of all producers. Net gains are positive even if the losses due to buffer stock operations are subtracted from the gross revenues.

39. If price stabilisation were not around the historical secular trends but around slightly higher trends, the gains to the developing countries would be substantially larger. For example, if the secular price trends were to be increased above their historical growth rates by 2 per cent, the present discounted value of added revenues to developing-country producers over a decade from the eight core commodities would be over 80 billion dollars. This would however require very large stockpiles and stockfinancing.

40. If the price bandwidth is changed from ± 15 to ± 5 per cent around the secular price, gross present discounted producers' revenue would increase from 4.1 billion dollars to 5.8 billion dollars, and alter the present discounted value of buffer stock operations from -1.9 to -4.1 billion dollars for the sum of the eight core commodities. Similarly, if the real discount rate is changed from 5 to 2 per cent, for example, the present discounted real values of gross producers' revenue would increase from 4.1 billion to 4.8 billion dollars and those of buffer stock operations would fall from -1.9 to -2.3 billion dollars.

41. The findings also indicate that the access to financial resources of 6 billion dollars suggested by UNCTAD is not likely to be sufficient for the core commodities, and a total of about 10 billion dollars would be necessary. However, substantial reductions in financial requirements may be possible through the integrated financing across commodities, as part of the UNCTAD Programme, which would allow profits from sales of some goods to be used to finance purchases of others.[1]

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[1] The study gives the bivariate correlations during the 1954-72 period among the deflated prices for the ten core UNCTAD commodities, and 23 other primary commodities. Among the 45 correlation coefficients for the prices of the ten core commodities, only 14 are significantly non-zero and positive. The other 31, of which 15 are negative, are not significantly non-zero at the 5 per cent level. The negative correlations all involve jute, tea and copper. That less than a third of the historical correlations among the UNCTAD core commodity prices are significantly positively correlated does support the case for financial integration. "Moreover, the existence of the commitment for integrated funding as opposed to segmented financing would make the ability of the buffer stocks to defend price floors against speculation much more convincing for the same total financing."

42. A highly significant finding of the study is that gains from the reduction of inflationary pressures, especially for consuming countries, may be substantially greater than the revenue gains to producing countries. Over the 25-year period reviewed, the core commodities had average price levels substantially above the secular trends a number of times. Studies by Popkin and Waelbroeck earlier referred to indicate that an increase of 30 to 50 per cent in the prices of core commodities would be required to cause a 1 per cent rise in the U.S. consumer price index. In the context of the historical pattern of commodity price increases, such a range implies that imposing ± 15 per cent bands on prices might reduce inflationary pressure at least by 0.2 to 0.4 per cent for several years in a decade of operation. By applying a Phillips curve relationship between inflation and unemployment on the basis of available estimates, the study concludes that in order to avoid such a degree of inflation unemployment would have to be increased by about 0.03 to 0.3 per cent in the United States. Conventional employment-income relations suggest that this would translate into about 0.1 to 0.9 per cent of the real GNP. Even on the conservative assumption of the bottom of this range, it would imply an economic gain (prevention of unemployment and GNP loss) well over 15 billion (1975) dollars each year for the American economy alone. Similar considerations would apply to the other industrialised importing nations. This shows that the ultimate gains to consumers from reducing inflationary pressures may be much larger than their losses to producers.

43. Behrman clearly recognises that the macro-welfare impact of a policy of price stabilisation cannot be adequately represented by changes in producers' and consumers' surplus. Thus as earlier indicated price stabilisation would provide dynamic welfare benefits by reducing planning uncertainties and by raising the rate of investment because of the reduction of risk. Consumers too would gain from the reduction of planning uncertainty, and to the extent that producers increase investment because of lowered risk, consumers would benefit from the larger supplies. However, existing quantitative methods are inadequate to permit reasonable estimation of these dynamic welfare gains.

44. Like any empirical economic exercise Behrman's study is necessarily based on several assumptions, and we may take a short, critical look at some of the major ones and their broad implications for his findings.

1. The price targets and floors and ceilings are in real terms. This is a logical assumption. The object of the Integrated Programme is essentially to stabilise the growth in the purchasing power of the earnings of developing countries from primary-commodity exports. And it is pertinent to note that the use of price targets in real terms does not necessarily imply 'indexation'. The secular trends in the real prices may be either upwards or downwards, and indexation is a special case in which the secular trend of real prices is changed to zero. However, it is difficult to see the logic of the creation and operation of a Common Fund and its associated commodity arrangements without some sort of indexation at least over the short and the medium term. As aptly observed by Green (1977, p.10), "fixed money price ranges for commodities and 10 to 12 per cent annual increase in manufactured goods import prices can hardly be perceived as stabilisation as opposed to stabilised, internationally managed impoverishment of peripheral exporters; an operation one can hardly expect

them to co-operate in for long". The developing countries have often been accused of fudging, as a tactic, the question whether they sought stabilisation or increase of prices. This is an unfair allegation in that they have always clearly laid great emphasis on 'fairness' of price and revenue, implying some form of indexation to ensure stabilisation around remunerative price trends. The de facto flexible approach of the International Tin Agreement (through the adjustment of floors and ceilings by the Tin Council) or the ACP-EEC Convention of Lome which links agreed sugar export prices to the EEC's internal beet sugar prices are all examples of the principle of indexation in actual practice. It would be interesting to analyse the implications of a zero growth rate in real prices of the primary exports of developing countries within Behrman's analytical framework rather than his illustrative 2 per cent increase in the price trends. On the basis of the observed trends in the real prices of primary-commodity exports it would appear that indexation should lead to added revenue of much less than the 80 billion dollars (as would result from a 2 per cent increase in price trends) to producers in less-developed countries. The cost of operation of the programme in terms of stock acquisition and financing will also be correspondingly low.

2. The bandwidths around the secular price trends which are maintained by the buffer stock operations in the simulations are ± 15 per cent. The UNCTAD Secretariat, in the Preparatory Meeting prior to the March 1977 Negotiating Conference on the Common Fund suggested a bandwidth in each agreement of ± 10 per cent around a target price defined as either the 1971-75 average (in 1976 dollars) or the (projected) 1974-78 average (in 1976 dollars). With these bandwidths and targets the gross present discounted revenue to developing-country producers is likely to be about 5 billion dollars (on a rough and ready reckoning) from buffer stock operations in respect of the core commodities.

3. No export or production quotas are utilised by the commodity agreements. However, in Behrman's model actual quotas and restrictions are used to the same extent as in the sample period, since the structural estimates reflect the impact of any such policies. Over the sample period export restriction arrangements were actually in force in the case of sugar, coffee, tin (in conjunction with buffer stocks) and tea (informal quotas) for some years. To the extent that the Integrated

Programme leads to the adoption of new export-quota type of arrangements e.g. in respect of rubber, hard fibres or tea, the estimates may be affected, albeit not surely to such an extent as to vitiate the relevance of the existing ones.

Of course, the model specification does not make allowance for any form of government interventions that have affected commodity markets in the past or which may be important in the future. As Behrman (1976, p.12) admits, "this is a simplifying assumption intended to ease the job of constructing the models, and particularly to facilitate their use as a part of large systems". But he rightly points out at the same time that "much of the evidence of the performance of market-stabilisation schemes suggests that, except for some specific instances, the assumption of substantially free markets is appropriate".

4. The simulations over a particular historical period (1963-72) are supposed to provide relevant information about the likely orders of magnitude associated with buffer stock operations. The use of the ten-year period ties the results to that particular period, but the period is long enough to cover a wide diversity of experience, including major swings in the world economy. The length of the period thus mitigates the extent to which the results are likely to be biased by the choice of a select period. The adoption of a period as long as ten years is rational also because it actually allows enough time to cover several commodity price cycles of historical duration.

5. Decisions concerning private inventories are not affected by the operation of the buffer stocks. This of course is a heroic assumption. A priori private inventories might be expected to fall due to less uncertainty for hedging and speculation and the assurance of additional supplies from the buffer stock. However, on the other hand, the reduction in risks of carrying inventories may cause them to rise, ceteris paribus, if inventory holders are risk-averse. The estimation of the cost of operating through the market presupposes knowledge about how much the buffer stocks would have to buy or sell to affect a given change in the market prices. Fixed elasticities and estimates of annual quantities coming on to the market, as assumed by Behrman, are not sufficient for this purpose because market expectations will change as a result of the existence of international buffer stocks, and under the impact of the market's own assessment of their ability or willingness to hold the ceiling or floor prices.

Behrman admits that his procedure does not very satisfactorily incorporate speculative inventory behaviour. Indeed, the neo-classical partial-equilibrium, or comparative-statics tools are often criticised on the ground that a change in one of the variables, given an initial equilibrium, sets in inexplicable and unpredictable changes in expectations, and these tools are incapable of solving dynamic problems when risk and uncertainty are introduced into the models. If alternative hypotheses, such as concerning private inventory behavioural relations were adopted, some of Behrman's conclusions regarding the gains and costs from price stability would become less straightforward. It is extremely difficult, however, to decide firmly on both theoretical and empirical grounds, whether one type of expectation or behavioural hypothesis is more rational than another in portraying what really happens in the various commodity markets. In almost all formal models of economic theory and econometrics the expectations hypothesis is usually extrapolative, i.e. based on the supposition that the expected value of a variable is a weighted value of its levels at different points of time in the past, and Behrman's is no exception in this regard. A 'sensitivity analysis', i.e. an analysis of the sensitivity of the simulation to structural changes in either direction for inventory behaviour, or for any other aspect of the model, "could be explored in principle," but such an exercise, Behrman points out, would be much beyond the time and resources of his study.

45. Admittedly, there are formidable difficulties in trying to evaluate in precise quantitative terms the likely welfare implications of the Integrated Programme for the developing and developed countries, and adopting partial analyses based on historic time-series data of 'free' market prices for this purpose has obvious limitations. As already noted, the production and marketing of processed and manufactured goods are to a considerable extent on an oligopolistic basis and it is wrong to assume that the buyers' side of most commodity markets is a large number of small, independent bidders as postulated under perfect competition. Thus to assume the free play of the market and to neglect institutional factors would be to risk arriving at imprecise conclusions anyway. Conventional cost-benefit analysis takes market price as data and thus ignores imperfections; it is also incapable of considering non-marginal changes. But while these are standard pitfalls about which economic theorists continually caution their fellows who venture into the applied world, empirical studies will remain reasonably justified and useful to the extent they are able to provide, albeit with some compromise with the realities of a complex economic world, results which give broad indications of the direction, orders of magnitude and cardinal ranking of some of the crucial variables. In this regard, Behrman's study represents a useful and pioneering quantitative exercise on the costs and benefits of the Integrated Programme, particularly because his model has the advantage of being reasonably simple and manageable.

46. Before concluding, it may be in order to refer briefly to another recent study by Green (1977) which also attempts a general macro-analysis of the likely costs and gains of commodity price stabilisation through managed marketing as visualised in the Integrated Programme. The major assumptions underlying the exercise are (1) a Common Fund covering the 18 commodities in respect of stabilisation (not solely or universally via buffer stocks) within 10 per cent relative to 'average prices', and 'co-ordination of individual commodity agreement parameters for market management'; (2) '<u>de facto</u> indexation in commodity agreement operations' over the short and medium term; (3) a nil 'micro-stability gains or losses' from operations in individual commodities taken as a group; (4) some 'second window' operations in respect of diversification and processing. However, the elaborate methodology underlying the estimates has not been spelt out in the study (described as a 'prolegomena') so that an objective and critical assessment is difficult and inappropriate. Nonetheless, Green's findings are reproduced in the appended table for the interested reader.

Concluding Remarks

47. The study demonstrates that the macro-economic, multiplier effects of a comprehensive and global commodity price and income stabilisation scheme, as visualised under the UNCTAD Integrated Programme for Commodities, are conducive to the welfare of both developed and developing countries, although some of these effects are not precisely quantifiable. The likely gains relate to (a) income, employment, inflation and cyclical fluctuations in industrialised economies, as well as (b) income, employment and balance of payments of less-developed countries, and (c) investment in commodity production which determines the long-run physical availability ('security of supply') of non-renewable resources and agricultural products - a crucial concern for the industrial powers that has been dramatised by the Club of Rome. Indeed it is apposite to say that the Integrated Programme purports to integrate both allocative and distributive elements within a global 'social welfare function'. Even the devout followers of the neo-classical doctrines, to whom the efficiency and 'Pareto-optimality' of market economy are broadly relevant objectives for contemporary industrial economies, now support the need for government intervention for the replacement or modification of the market price mechanism where it cannot be expected to work effectively for redistribution of income and wealth. And as indicated previously, developed countries e.g. the United States and the EEC have long recognised the importance of avoiding excessive fluctuations internally and have introduced intervention measures to protect the real incomes of their primary producers. The extension of these principles in the international sphere under an adequate, multi-commodity package approach could result in important macroeconomic benefits for the world as a whole. And commodity reform is much more desirable than "massive additions to aid which is - no matter how well-meant - a plea for Eurocentric paternalism and a rejection of self-reliance based on equal bargaining and fair bargains" (Green and Singer, 1975, p.435). The Integrated Programme and the creation of the Common Fund, on the other hand, should not be regarded as a new exercise in international aid or unrequited resource transfer, "but as a vital instrument in restructuring international trade in the interests of developed as well as developing countries", as stressed by the Secretary-General of UNCTAD in his report to the first Preparatory Meeting on the Common Fund. What often creates a misapprehension about the Programme is that a rise in the purchasing power of developing countries as a result of higher export prices would involve a zero-sum game inasmuch as it would lead to a corresponding decline in the purchasing power of the developed importing countries. However, this is a 'static' view and in a dynamic set-up, when the full interaction of all the forces are taken into consideration, the situation is changed radically. The increase in the purchasing power of developing countries by translating an enormous - almost insatiable - potential demand (owing to unfulfilled needs) into an effective one will generate forces which in turn will stimulate economic growth, employment and exports in the industrialised countries. Thus in the long run, the cumulated effects of the rise in the purchasing power of the developed countries would lead to a positive-sum situation wherein all concerned will mutually benefit. Indeed it is quite conceivable that the Integrated Programme, in so far as it leads to a steady rise in the purchasing power of developing countries, may form the best remedy for the most intriguing post-war economic problem of the developed world, viz. the dilemma of the trade-off between unemployment and inflation implied by the Phillips curve. However, unless the developed countries are convinced of these tangible long-run benefits, immediate or short-run considerations will continue to eclipse all others, including those of the ethical case for a more equitable world economic order. Hopefully, such a conviction is not far away.

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COMMON FUND AND PRICE STABILISATION: GREEN'S ESTIMATES OF COSTS AND BENEFITS

GAINS AND COSTS ($000,000)[a]						
	Industrial Economies		Peripheral Economies		Net	TOTAL
	Year 1[b]	Year 10[c]	Year 1	Year 10	Year 1	Year 10
1. Price Stability[d]	+10,000	+13,000	+4,000	+5,200	+14,000	+18,200
2. Trend Stabilization and Terms, shifts[e]	-500	-6,500	+1,000	+13,000	+500	+6,500
3. Marketing Participation	-300	-1,560	+300	+1,560	-	-
4. Supply Development	-	+2,000	-	+4,000	-	+6,000
5. Processing, etc.[f]	-	-	-	+1,500	-	+1,500
6. Fund Equity[g]	-150	-195	-100	-130	-250	-325
Total	+9,050	+6,745	+5,200	+25,130	+14,250	+31,875
Alternative I	+4,050	+245	+3,200	+22,530	+ 7,250	+22,775
Alternative II	+8,800	+3,495	+5,700	+31,630	+14,500	+35,125
Alternative III	+9,550	+13,245	+4,200	+12,130	+13,750	+25,375

In alternative I a 5% (not a 10%) reduction of instability is assumed.
In alternative II a 50% larger trend stabilization/terms of trade shift effect is assumed.
In alternative III trend stabilization and terms of trade shifts are assumed to be nil.

Notes:
a. Constant 1976/77 prices.
b. First fully occupational year
c. Assumes 30% volume growth over decade.
d. Includes gains on intra-industrial economy trade and peripheral economy imports.
e. This combines basic stabilisation of trends (in real terms), 15-20% real price increases over a decade for tea, jute, bananas (at producer price level), some erosion of long term real purchasing power for commodities under synthetic pressure.
f. This is a pro forma and rather conservative estimate. Major breakthroughs on research into new uses and into processing could yield much larger gains. The larger the gross gains, however, the greater the problems of estimating opportunity cost to arrive at the net level.
g. Assumed to be paid 60% by industrial economies and 40% by peripheral economies (including OPEC members).