A Common Fund - Financial Organisation, Operations and Management

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INTRODUCTION

The Commonwealth Secretariat on 1st July, 1977, commissioned Commodities Research Unit, of London and New York, to prepare the following study on "A Common Fund - Financial Organisation, Operations and Management".

The terms of reference emphasise that the study should concentrate on the financial and technical aspects.

It is not part of our brief to evaluate in a wider sense the merits of the many proposals for a Common Fund which have and are being considered, nor to speculate on which if any may be adopted. We do however summarise the proposals and their more general implications in Appendix 2.

In concentrating on the financial and technical implications we do so particularly in respect of the first three of the Common Fund proposals listed below.

Principal Common Fund Proposals

The following are the principal Common Fund proposals under international discussion, with some drift in favour of the first three:

1) A "central source" Common Fund which would be financed by official equity subscriptions and/or market borrowing;

2) A "pooling" Common Fund which would be financed from the pooling of funds secured by ICOs (Individual Commodity Organisations) who would in turn secure their funds from official subscriptions and/or subscriptions from producers' and consumers' organisations and/or market borrowing;

3) A "pooling plus source" Common Fund combining aspects of (1) and (2) above;

4) A "clearing house" Common Fund acting as broker to arrange loan transfers from surplus to deficit ICOs;

5) A "guarantor" Common Fund providing guarantees for market borrowing by ICOs.

There are proposals that a Common Fund should contribute not only to stabilisation of international raw materials prices but also to "other purposes" like stabilisation of primary producers' export earnings, the diversification of their economies and improvement of their productivity. Only the first three of the Common Fund varieties listed above would have scope to contribute towards such "other purposes".

Participants in the negotiations

The main purpose of listing the principal participants in the present negotiations is to make clear that differences of interest exist not only between but also within some groups. This needs to be borne in mind in considering the analysis advanced in our report. The main participants are:

Group B - The OECD industrial countries mainly representing consumers but also including countries which are both consumers and important primary producers, like the US, Canada and Australia;

The Group of 77 - Mainly developing primary producers, but also including relatively economically advanced primary producers like Brazil;

Group D - The centrally planned economies, who have interests both as producers and consumers;

Special Category - The people's Republic of China.

The negotiations to date

A brief summary of negotiations to date is:

September, 1974,	New York - The 7th Special Session of the UN votes for a New Economic Policy including commodity price stabilisation;
May, 1976,	Nairobi - An UNCTAD meeting decides to enter preparatory discussions on possible ICAs (individual commodity agreements) for the stabilisation of 18 commodities and negotiations on a Common Fund;
March, 1977,	Geneva - First negotiating conference on a Common Fund;
May, 1977	London - At an economic summit meeting in London the US formally accepts the principle of "a" Common Fund;
July, 1977,	Paris - The Conference on International Economic Cooperation (CIEC) agrees in principle on the establishment of "a" Common Fund;
November, 1977,	Geneva - Second negotiating conference on a Common Fund due to take place, but without any present deadline for the creation of such a fund;
February, 1978,	- Preparatory negotiations due to be completed on an as yet undecided number of ICAs, but with no present deadline on the completion of such agreements.

SUMMARY OF CONCLUSIONS

Introduction

This study concentrates, as requested, on the financial and technical problems involved in the creation of a Common Fund, although the objectives of a Common Fund and the wider implications are discussed in an Appendix.

Five principal varieties of Common Fund have been considered so far in the UNCTAD negotiations, but official discussion is narrowing on three of these and so does our analysis, partly because these three varieties are those providing scope for "other purposes" such as stabilisation of primary producers' export earnings, diversification of their economies and improvement of their productivity. These three variants are:

1) A "central source" Common Fund financed by official subscriptions and/or market borrowing;

2) A "pooling" Common Fund financed by member ICOs (individual commodity organisations);

3) A "pooling plus source" Fund, being a hybrid of the two listed above.

An important aspect of the present Common Fund negotiations is that differences exist not only between but also within the principal groups taking part in the discussions. For instance, the Group B industrial countries of OECD predominantly represent the interests of consumers, but also include important primary producers like the US, Canada and Australia.

CHAPTER I.

BACKGROUND TO DATE OF COMMON FUND DISCUSSIONS AND THE FINANCING OPTIONS CONSIDERED

The advantage of the "pooling" and "clearing house" variants is their relatively greater autonomy and hence sensitivity to the different conditions within each ICO. This is less so in the case of the two centralised versions of Common Fund, the "central source" and "pooling plus source" variants.

On the other hand, a "pooling" Common Fund does not have a tendency to encourage the creation of new ICOs in the way that a "central source" Fund does. This is one reason why developing countries tend to favour a "central source" Fund. Industrial consumer countries, however, are wary of this aspect of a "central source" Fund since they are anxious that ICOs should come into being only where the circumstances are such as to promise that they will be viable in their own right.

Meanwhile, a "central source" or a "pooling plus source" Fund would have greater scope for helping to finance "other purposes" than a pure "pooling" Common Fund, while a "clearing house" or "guarantor" Common Fund would have virtually no scope for contributing to "other purposes".

CHAPTER 2.

THE FINANCIAL STRUCTURE OF A COMMON FUND - THE PROPORTION OF DEBT TO EQUITY AND THE RELATIONSHIP BETWEEN ISSUED AND AUTHORISED CAPITAL

Since industrial countries are likely to have to contribute most of the equity of a Common Fund, they will tend to favour the highest possible debt ratio. The debt ratio of 2:1 which might prove acceptable to Common Fund members should be sustainable only if lenders to a Fund were convinced that additional equity would indeed be callable in practice and not merely in principle.

The device of accepting subscriptions for a part of the issued capital against non-negotiable non-interest-bearing demand obligations may provide an assurance of equity backing acceptable to lenders, although here, too, the lenders would need to be satisfied that such equity really would become available to the Common Fund in currency when needed.

It may prove difficult to devise any form of Common Fund subscription quotas related to the assumed benefits of member countries from stabilisation. It seems more likely that quotas will be related to member countries' economies and international trade as in the case of International Monetary Fund quotas, although it is worth noting that the final determination of IMF quotas is made also on an element of political bargaining between members and that organisation.

CHAPTER 3.

FINANCING THROUGH EQUITY, GUARANTEES, STOCK WARRANTS AND FUTURES CONTRACTS

While the hope is that industrial countries can be relied on to subscribe to Common Fund equity on foreign policy grounds, if no other, problems might arise in other respects. These could be met if developing countries, or some developing countries, were allowed to subscribe in non-convertible currencies, although this might impair the view of the quality of a Fund's equity taken by prospective lenders to a Fund. Another approach might be to try to make ICOs eligible for borrowing from international financial institutions like the IMF and World Bank, but changes in IMF and IBRD rules making this possible cannot be taken for granted.

Meanwhile, it needs to be borne in mind that equity subscriptions by industrial countries to a Common Fund may, in some cases at least, be at the expense of other forms of aid. Likewise equity subscriptions or guarantees provided by developing countries would impair the credit rating of such countries in international capital markets (and the same would be true, to a lesser extent, in the case of several smaller industrial countries who need to borrow heavily in international capital markets for balance of payments financing).

Stock warrants represent well tried and widely acceptable collateral for buffer stock stabilisation but excessive borrowing against such warrants would make buffers vulnerable to bear speculation. Moderation in warrant-backed borrowing and in the ratio of total debt to equity should meet this difficulty. However, an important practical difficulty about the use of warrants needs to be faced. Unless buffer stocks are owned by a Common Fund, banks and other lenders might prove reluctant to lend to a Common Fund against warrants for stock owned by another party, that is, an individual buffer. The other side of this practical problem is that if a way is found by which banks and other lenders are willing to advance funds directly to a Common Fund, mechanisms would need to be designed to give buffer managers rapid and uncomplicated access to their financial entitlements from a Common Fund at times of heavy market intervention. Another question to be faced is that where ICOs draw on a Common Fund against the security of the stock warrants, the Common Fund may not be able to use such warrants as collateral for market borrowing of its own, since such warrants would not be considered as the Common Fund's property to be pledged.

Intervention in futures markets would enable a Common Fund in suitable cases to achieve stabilisation at a lower direct outlay than spot intervention. Yet through the contango at the bottom of the market and backwardation at the top, buffers could retain control over spot prices.

CHAPTER 4.

TERMS AND CONDITIONS FOR LENDING TO ICOs

A Common Fund lending to ICOs would find it difficult to discriminate between ICOs in the terms and conditions of lending for buffer intervention. The burden of concessionary financing would therefore probably have to be shifted onto the financial arrangements made by each ICO for itself, allowing a Common Fund to lend to all ICOs at uniform interest rates and borrowing charges, including the commitment fee customarily charged by lenders to borrowers on stand-by finance.

The extent of ICO access to a Common Fund raises an extremely important point, since any lending above ICO quota limits would raise the issue of conditionality and therefore the question of the extent to which the role of a Common Fund is enlarged beyond that of a bank into one of decision making about appropriate ICA intervention points. At present, the weight of proposals in the international negotiations is that a Common Fund should be confined as far as possible to the role of a financial institution, no matter which variant of Common Fund is ultimately chosen. However, this question can never be skirted entirely since all lenders inevitably impose some conditions on borrowers. The question therefore hinges on the degree of conditionality which may prove inescapable.

Another important point to which it is impossible at this stage to do more than draw attention concerns the actual rates of interest which a Common Fund might need to charge. Any discussion of this needs to start from the premise that while a well-managed buffer can be expected to earn some return, this might not be as high as that from most alternative commercial investment. A concessionary element would therefore have to be injected either into borrowing by a Common Fund or lending by a Common Fund or both, even leaving aside the frankly concessionary terms which would have to be attached to Fund financing of "other purposes" than commodity stabilisation. It is worth pointing out here that the hopeful comparison so often drawn

with the World Bank may not be very useful, given that institution's long and extremely well-managed evolution. In the World Bank's latest financial year, for which data is presently available, namely to June 30th 1976, the World Bank's borrowing costs averaged 8.48 per cent. However, the average cost of all funds to the Bank, including paid-in capital and accumulated earnings, which are cost-free, was only 5.6 per cent. And it was this which enabled the Bank to keep its average lending rate at 7.1 per cent during 1975/76. But a newly established Common Fund could obviously not count on such advantages and even an average lending rate of around 7 per cent might not be feasible for ICOs.

CHAPTER 5.

THE ESTABLISHMENT OF FINANCIALLY VIABLE OPERATIONS

While a degree of financial viability may be attainable in many buffers linked to a Common Fund, it is very questionable whether this can become the main criterion for evaluating the success of a Fund. It will be necessary to take into consideration also the indirect benefits of stabilisation, although these would be diminished to the extent that contributions to a Fund by industrial countries take the form of aid diverted from other purposes.

CHAPTER 6.

NON-BUFFER STOCKING ACTIVITIES

Common Fund financing of "other purposes" than buffer stabilisation would probably need to be at low rates of interest and for long maturities. Moreover, such financing would probably cut across ICO lines in being extended to some members of several ICOs rather than all members of any one ICO or all members of all ICOs. A "second window" would therefore be necessary although it may not need to be as distinct as IDA is from the IBRD. Uniformity of interest rates and other terms would be desirable here, too, although returns would clearly vary as between projects being financed. Concessionary help from outside aid agencies may have to be sought.

1. THE BACKGROUND TO THE COMMON FUND DISCUSSIONS

The UNCTAD discussions on a Common Fund have thrown up five alternative funding structures for serious consideration. In this chapter of the present study, we shall describe the four main financing methods plus one popular compromise that have been proposed.

Using the terminology of UNCTAD's Group B in their papers on the subject, the four main alternative proposals regarding the mode of operation of a Common Fund are that it should operate as (i) the "principal source of funds"; (ii) the "pool of finance"; (iii) a "clearing house"; or (iv) the "guarantor of loans". The hybrid that has taken the centre of the stage recently is a combination of (i) and (ii), known simply as a "pooling plus source" fund, although there is little agreement about the relative importance to be attached to the two functions.

The principal source of funds structure of a Common Fund envisages that all funding will be arranged by one centralised fund, which will lend funds to the ICOs associated with it. It seems to be universally accepted that this form of Common Fund would lend funds to ICOs for buffer stock activities at a uniform rate of interest, but that the Common Fund would have some discretion over the interest rate that it charged on lending for non-buffer stock activities. Another area of some importance, in which agreement appears to have been reached, is that the allocations of loans for buffer stock financing will, like the World Bank's lending, be completely independent of the amount of finance provided by individual nations.

The pool of finance approach proposes that the individual commodity organisations, bound together by agreements between producers and consumers, will raise their own funds. The liquid element of these will then be pooled in a Common Fund, which will supervise and control subsequent lending to the ICOs linked to the Common Fund. It has been suggested that the amount of lending that the Common Fund makes to the ICOs should be based upon quotas related to the contributions made by each ICO to the Fund, along the lines already practised by the IMF.

The clearing house version of a Common Fund, relegates the role of the Fund to that of assisting in bilateral loan negotiations between ICOs. The Common Fund would aim to marry the financial requirements of one ICO to the excess liquidity of another, and would not possess any funds entirely under its own control.

As guarantor of loans a Common Fund would collect together a range of governmental guarantees, including possibly guarantees from inter-governmental organisations such as the IMF. These could be then used as security by ICOs when they raise loans. A possible precedent for this particular structure would be the various export credit guarantee schemes that governments operate, providing security against which exporters can arrange commercial borrowing.

In addition, there is the pooling plus source version. The French approach put forward in the Fourcade Plan, is that a pooling of ICO resources into a Common Fund should take place only after several ICOs have first proved themselves. This has, however, encountered wide objections as being neither politically acceptable to the LDCs nor technically feasible since a relatively wide range of ICOs would need to operate successfully to provide a sufficient offset before a Common Fund could secure sufficient funds from them not to need supplementary financing of its own. Hence the argument for "pooling plus" as against the pure pooling implied in the Fourcade Plan.

The attractions of the various methods of financing the Common Fund can best be understood by comparing their abilities to meet the following objectives:-

(a) to attract sufficient funds to achieve a price stabilisation target;

while (b) paying low interest rates on borrowing;

(c) economising on the use of liquid resources;

(d) encouraging the establishment of ICOs - the "catalytic effect";

(e) assisting desirable non-buffer stock activities;

and (f) taking due account of the special factors that may affect particular commodity buffer stock schemes. (Under this heading, one would include consideration of whether or not an ICA buffer stock deserved an operating subsidy if it could demonstrate that exceptional social benefits would accrue from being granted one).

(a) A Principal Source of Funds

A principal source of funds structure, without any element of independent finance for ICAs, should meet all the objectives (a) to (e), but fails to meet the last objective adequately. In Appendix 2, a variety of reasons are advanced to explain why the producer nations may be expected to favour the principal source of funds structure, while the richer consumer nations tend to favour a pooling approach. Nevertheless, the political pressures that the producers can exert on the consumers are likely to mean that there should be relatively little problem about raising finance for a Common Fund. As regards objectives (b) and (c), the spreading of risks inherent in the centralised approach of the principal source of funds enables the costs of borrowing to be reduced, and it also permits liquid resources to be held at the minimum level possible, since all the benefits attainable on account of offsetting movements in commodity prices should be available to a totally centralised structure. Other advantages of a principal source of finance include the fact that the existence of a large central fund, willing to lend to buffer stocks, should serve as a catalyst for the creation of ICOs. In addition, a centrally controlled source of finance for non-buffer stock activities is easily created alongside a central fund for buffer stock finance, thereby ensuring the achievement of objectives (d) and (e). But, the whole area of activities that require separate finance within each ICA, or which would otherwise call for different conditions of lending by a central fund to different ICAs, covered by objective (f), is an area in which a principal source of funds is likely to be found wanting.

(b) A Guarantor of Loans

Compared with a principal source of funds, the guarantor of loans approach is unambiguously inferior. Provided sufficient guarantees are forthcoming, it should be possible to use a guarantor of funds model to raise the finance needed for a series of price stabilising buffer stocks, and to do so at favourable rates of interest. Furthermore, if guarantors are willing to extend their guarantees to cover as yet non-existent ICOs, this particular structure of agreement should act as a catalyst for the establishment of new ICO buffer stocks. But, the formation of a syndicate of national and international guarantors of Common Fund borrowing does not enable the fund to take advantage of offsetting movements in ICOs' financial

requirements, since it does not provide any mechanism for excess liquidity in one ICO to be transferred to another. Nor will the pure guarantor of funds form of Common Fund be capable of meeting either objective (e) or (f), since it has to rely entirely upon commercial borrowing, made at commercial interest rates, for finance. No funds will be available with the guarantor of funds approach to finance activities which are unable to earn a commercial rate of return.

Conclusion:

A comparison of the two alternative proposals for a Common Fund relying upon centralised methods of raising finance shows the principal source of finance structure to be superior to a guarantor of funds approach. Neither of them will be very sensitive to the variations in the social returns from buffer stock activities in different commodities, but the principal source of funds framework is alone in being able to take advantage of off-setting movements in ICO buffer stocks, and in being compatible with the establishment of a separate source of finance for non-buffer stock activities.

(c) A Pool of Finance

A pooling form of Common Fund differs from the two financial structures just mentioned, in that it assumes that the individual commodity agreements will have the responsibility for raising most of their own funds. The only centralised finance available to ICAs will come from the surplus funds raised by other ICAs.

Producing countries tend to favour a "central source" Common Fund financed to a greater or lesser extent by market borrowing because of their belief that this would make fewer calls on their limited financial resources. Besides, they believe that the existence of such a Fund would make possible the creation of more ICOs over time. The industrial consuming countries, on the other hand, favour a "pooling" Common Fund financed by ICOs, to the extent that they are in favour of any kind of Common Fund, because they believe this would provide a greater discipline on the creation of viable ICOs only, fearing that a spawning of ICOs through a "central source" Fund might include some that are not viable in themselves. Hence a pooling form of Fund should not be at a disadvantage in relation to a central source Fund in respect of the raising of finance. Where a pooling form of finance scores, and scores strongly, over a principal source of finance is in its ability to respond to the special factors that arise within individual commodity agreements, since the ICOs enjoy considerable financial autonomy.

(d) A Clearing House

The clearing house structure of a Common Fund shares with a pool of finance its sensitivity to the circumstances affecting producers and consumers of particular commodities. But, of the other objectives that are met by a clearing house, there are none that are met better by a clearing house than a pool of finance fund.

While a clearing house and pool of finance ought to be similar in their ability to attract funds, a clearing house can spread risks and will pool liquid resources less efficiently than its rival, since such pooling and risk-spreading that does occur depends upon the Common Fund finding willing lenders and borrowers among ICOs. Similarly a clearing house has no advantages as a catalyst for the establishment of new buffer stock funds, nor as a means of financing non-buffer stock activities.

Conclusion:

The special advantage enjoyed by both the pooling and clearing house financial structures is the greater autonomy and hence sensitivity to the different conditions within each ICO compared with the two more centralised forms of Common Fund, the "central source" and the "pooling plus source" variants. The weakness of the "clearing house" Fund is its limited ability to spread risks and thus secure low interest loans. A feature of the "pooling" Common Fund is that it does not act as a catalyst in encouraging the creation of new ICOs, which is regarded as a weakness by LDCs who desire a Common Fund to encourage the creation of more ICOs, while being regarded as a virtue by many industrial countries who wish ICOs to be brought into being only where they are so organised and managed as to be sound in their own right. Moreover, a "pooling" Common Fund would have less scope for helping to finance "other purposes" than a "central source" or "pooling plus source" Fund, while a "clearing house" Common Fund would have no scope at all for financing "other purposes".

2. THE FINANCIAL STRUCTURE OF A COMMON FUND

In this chapter, we shall first discuss the division of the capital of the Common Fund between equity and loan sources of finance. In the latter part, we study the criteria that have been proposed as bases for equity contributions.

It is now widely accepted that a Common Fund for commodities will have to be more than a fund for financing buffer stocks. An element of aid disbursement related to non-buffer stock activities will be an essential part of Common Fund operations. Therefore, before one can proceed with a discussion of a Common Fund's financial structure, one has to resolve how it will incorporate non-buffer stock finance within its activities.

The two extreme positions that are tenable are, on the one hand, the approach of the World Bank, whose IDA soft loans affiliate has a totally separate financial structure from its parent, with the only direct financial link being the transfer of net income from the IBRD to the IDA. The IBRD has no liability whatever for possible debts of the IDA. At the other extreme are institutions such as the Asian Development Bank and the International Fund for Agricultural Development, a certain proportion of whose funds are available for lending on soft terms. While the World Bank's financial structure is unaffected by the IDA's activities, the ADB's and IFAD's structures will have to take account of their involvement in lending on soft terms.

The present paper will go further into the financing of non-buffer stock activities in chapter 6. In the meantime, we shall act as if the World Bank is the model for the financing of non-commercial lending.

(a) The Debt: Equity Ratio

With that qualification in mind, we can tackle the question of which debt: equity ratio will be the most appropriate for a Common Fund.* Most

* Where the Common Fund relies upon a pool of finance, the debt: equity ratio to which we shall refer is the ratio of the total debt to the total equity of all ICOs linked to the Common Fund.

of the comments that we shall make apply with equal force to a principal source of funds and a pooling version of the Common Fund, but there is good reason for supposing that a Common Fund relying upon the pooling of funds from affiliated ICAs will prove to have a lower debt: equity ratio. A Fund based upon a principal source of funds will have a broader spread of its risks than an individual buffer stock. Hence lenders will be more willing to provide loans for a principal source of funds version of the Common Fund. Since equity holders will always resent contributing more capital than they consider the minimum necessary, and since the equity holders from consumer nations, who are likely to contribute the bulk of the Fund's equity capital, favour the pooling approach, the attraction of a principal source of funds structure to prospective lenders will be translated into a higher debt: equity ratio than will occur with a pooling structure.

Whatever the financial model chosen by the Common Fund there will be a difference of opinion between LDCs and DCs over the desirable debt: equity ratio of the Fund. Assuming although this is by no means yet assured that the eventual financial structure of the Common Fund results in DCs providing the predominant share of the equity capital, and that the equity capital is considered to be available as if there were no opportunity cost (i.e. dividends are not expected to be paid on the equity capital), LDCs would press for a debt: equity ratio below that desired by the DCs. It is true that a lower debt: equity ratio requires a higher equity contribution from LDCs, but this ought to be more than counterbalanced by the lower interest rate on Common Fund lending to ICAs. Another important point needing to be stressed is a difference between LDCs, many of whom would wish called capital to be used towards Fund lending, and DCs whose view is that it should be used only as backing for Fund borrowing.

The DCs will obviously resist these pressures, since they would entail the provision of a substantial subsidy from the DCs to the Common Fund. However, they will be unwilling to see the Common Fund become too highly geared, for fear that it will cause financial guarantees from member governments of the Common Fund to be invoked.

If examples given in UNCTAD documents have any value as indicators of the way in which the consensus is emerging, the DCs appear to be near to achieving their objective of a relatively high debt: equity ratio. A figure of 2:1, with part of the debt obtained at concessional rates of interest, is being widely mentioned, and would be in line with the experience in similar international institutions, such as the IBRD.* It would also be in line with the financing of the International Tin Council buffer stock in 1975, after it had arranged borrowing from the Algemene Bank Nederland and Hambros Bank, on the security of its tin stock warrants.** But it is generally accepted that a ratio of 2:1 is getting near to the upper limit that lenders will tolerate. Indeed, a ratio of 2:1 for buffer stock financing is only likely to be accepted by lenders if they are assured that the Common Fund can call upon additional supplies of equity capital should it become necessary.

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* The IBRD's ratio of borrowings to paid-up equity plus reserves is just over 2:1.

** The borrowing terms agreed by the ITC permitted the debt: equity ratio to rise to a maximum of 4:1. However, the maximum level recorded so far has been little more than 1:1, and we understand that neither borrower nor lender would have been happy to see the ratio rise above 2:1.

The device of issuing only a proportion of the authorised equity capital of an international institution is a familiar way of indicating the strength of the backing for equity capital. In the case of the IBRD, only one-tenth of the authorised capital has actually been issued and fully paid. The proportion of authorised capital issued is usually higher for regional development banks, but is rarely above one half.

Unfortunately, the existence of unissued but authorised equity capital is in itself no guarantee that the unissued capital can readily be issued and converted into cash. One way round this dilemma has been devised by the IBRD. The bank's credit rating soared when the US government agreed to make its quota of unissued but authorised capital available for backing loans regardless of the actions of other capital subscribers.

If governments are unwilling to follow the example set by the USA in the case of the IBRD, a proportion of capital in a Common Fund could be issued to member governments in return for non-negotiable, non-interest-bearing, demand obligations, to be available in the event of a sudden requirement for new capital. Indeed a certain proportion of the IBRD's capital has been issued in this manner.

Conclusion:

Since they are likely to have to bear the main burden of equity finance for a Common Fund, the DCs will favour a higher debt: equity ratio for the fund than the LDCs. An eventual ratio in the region of 2:1 appears both feasible and acceptable to most nations contributing to a Common Fund. But this ratio can only be sustained if lenders to the fund are convinced that further equity finance will be available to the fund should it become necessary.

The device of issuing only a fraction of the authorised equity capital, and of accepting subscriptions for a proportion of the issued capital in return for non-negotiable, non-interest-bearing demand obligations, may provide an assurance of equity backing in a form acceptable to prospective lenders, although that will also depend on the view lenders take of how callable such additional equity really would be.

(b) The basis for equity contributions to a Common Fund

Once agreement on the debt: equity ratio of the Common Fund has been reached, there still remains to be resolved the question of the best basis for determining equity contributions from member governments. Since the allocation of voting rights in the management of the Common Fund will almost certainly be partly dependent upon the distribution of ownership of the equity capital, there will be two strongly opposing pressures at work upon member governments. One strong force will be the desire for the LDCs to have as near as possible a controlling interest in the Fund. This is enshrined in the principle of equality in voting rights and equity contributions. However, prospective shareholders of the Common Fund recognise that the financial burden that the equality principle places upon smaller LDCs would be intolerable. Therefore, it has been argued that contributions to the Fund should be based upon the proportionality principle - namely that the contribution to the Fund's equity capital should be proportional to some measure of economic resources.

As always, the most likely outcome will be a compromise. The simplest compromise would be for all members to subscribe a small, but identical, amount of capital, regardless of their economic size, and for the remaining capital to be allocated on the proportionality principle. A more

sophisticated proposal, that reflects closely the political realities of the Integrated Programme for Commodities, is to divide Common Fund subscribers into blocs of similarly placed nations, for example, placing low income nations, eligible for IDA loans, in one bloc, medium income nations in another, and high income nations in yet another, and then to apply some kind of equality principal between the blocs and to use the proportionality principle to determine the contributions within each bloc.

One other difficulty to be resolved is the interpretation to be placed upon "the economic resources" of Common Fund contributors, if these are to act as the basis of the proportionality principle for subscriptions. The two main alternatives are the "benefit" and "capacity-to-pay" approaches, neither of which yield unambiguously clear-cut conclusions.

The benefit approach to the proportionality principle is usually understood to mean that contributions to the Common Fund should be closely related to a country's share in the value of the foreign trade in the commodities to be covered by the Fund. Yet this particular measure may be highly misleading as an indicator of the distribution of the benefits from stabilisation. Appendix 1 summarises the main costs and benefits of price stabilisation. The quantification of these is still highly questionable, but, if nothing else, the attempts that have been made so far show up the error of equating the benefits from the price stabilisation with the shares of world trade in commodities.

Another practical problem with using this particular "benefit" approach is that the amplitude and the length of product cycles vary between commodities. Hence the benefits from price stabilisation relative to the value of world trade may vary considerably from commodity to commodity. Accordingly, even if the share of world trade was an adequate indicator of the benefits from stabilisation, one would have to attach a set of weights to the volume of trade in different commodities so as to reflect the differences in their circumstances. A final point of some practical importance, mentioned in Appendix 2, and which has a bearing upon the benefit approach to buffer stock contributions is the question of whether total production or merely the internationally traded production of commodities is the appropriate indicator of a nation's benefits from a Common Fund.

In view of these objections to the application of the benefit approach to Common Fund contributions, it is easy to understand why capacity-to-pay appears more likely to be adopted as a basis for the implementation of the proportionality principle. This is true, even though the estimation of capacity-to-pay is fraught with almost as many problems as the benefit approach. GNP, GNP per capita and the level of international reserves all ought to be taken into account in deciding upon a nation's capacity-to-pay. And in the typical spirit of international compromise, one imagines that they will all appear in some measure in the eventual method of equity subscription.

Conclusion:

The basis upon which equity contributions will be assessed for the Common Fund is virtually certain to take account of both the equality and proportionality principles. If the element of proportionality is intended to reflect the benefits from price stabilisation, a simple formula for equity participation related to a nation's commodity production and consumption will prove hard to devise. Therefore, contributions based upon the proportionality principle are likely to have to be related instead to some measure of a nation's economic strength or the importance to it of foreign trade, similar, for example, to that used to calculate contributions

to the International Monetary Fund, though it is worth pointing out that, in the case of the IMF, quotas are ultimately decided also on some element of political negotiation.

(c) The relation of Common Fund contributions to the formation of ICOs

Even after agreement on the basis for equity contributions to the Common Fund has been reached, there may remain one further financial obstacle to the establishment of a Common Fund to be overcome. Unless all ICOs come into existence and link themselves to the Common Fund at one and the same time, a scheme for determining equity contributions to a Common Fund, and for allocating voting rights within it, will have to include procedures for phasing in national equity contributions to the Fund as ICOs affiliate themselves to it.

With both a principal source of finance and a pool of finance, national stakes in a Common Fund ought to be related directly, or indirectly (via ICO intermediaries), to the progress made in forming ICOs and associating them with the Common Fund. A method of taking care of this would be easy to devise were there no offsetting movements in commodity buffer stocks which would allow the Common Fund to benefit from pooling. In the absence of offsetting, it would be straightforward and acceptable to relate equity subscriptions to the Fund directly to member nations' interest in each new ICO.

However, the existence of benefits from offsetting implies that the addition of a new ICO, with all its attendant capital requirements, to the Common Fund requires a less than proportional addition to the Fund's capital stock. Since these economies from pooling constitute one of the greatest incentives for creating a Common Fund rather than a series of independent ICOs, they ought to be reflected in the determination of equity contributions to the Fund. The simplest technique for building into the mechanism for subscribing equity to the Fund some recognition of the gains obtainable through offsetting would be to have two forms of equity contributions. The first contribution, made when the Common Fund was established, could be a small, fixed proportion (possibly 10 to 20 per cent) of a nation's total estimated equity contribution once the complete Common Fund was in operation, with all its linked commodity buffer stocks functioning properly. The remainder of the equity subscription could then be related to each nation's stake in the individual buffer stocks, and would become due when the ICOs in question were formed.

The greater are the benefits from pooling, the higher ought the initial fixed equity contribution to be. For, with high initial contributions, the addition to the Fund's capital that will be needed to accommodate new ICOs within it will be relatively low. Furthermore, where the gains from pooling are large, one would like the incentives for Common Fund members to establish new ICOs to be strong. The natural way of doing this is to arrange that the extra equity contribution that will be required to set up new ICOs will be small compared with the buffer stock requirements and the gains from the stabilisation of the price of the commodity under consideration.

Conclusion:

The ideal way of linking national equity contributions to the formation of ICOs affiliated to the Common Fund would be to divide nations' equity shareholdings into two parts. The first would be a fixed proportion of the total estimated equity requirements of a complete Fund, and the second would be tied to the successful creation of ICOs. The greater are the benefits from offsetting movements in ICO buffer stocks, the larger should the first part be.

3. FINANCING THROUGH EQUITY, GUARANTEES, STOCK WARRANTS AND FUTURES CONTRACTS

Many of the issues relevant to the securing of adequate finance for a Common Fund have already been touched upon in the previous chapter. If the debt: equity ratio is effectively determined to be roughly 2:1 by the process of compromise between the interests of the producers and consumers, the most important single determinant of the potential size of the Common Fund will be the amount of equity capital that the Fund can attract.

(a) Equity Contributions to the Common Fund

The gains from stabilisation discussed in Appendix 1 should provide some incentive for nations to subscribe equity to a Common Fund, even though the costs of stockholding are likely to prove too high to enable the return on equity to be much more than nominal. Common Fund shareholders ought to be attracted by the bait that the Fund offers of automatic international economic stabilisation by means of counter-cyclical policy along Keynesian lines, as well as of a moderating influence upon international inflation. In addition, price stabilisation has a strong appeal to risk-averse producers and consumers, and holds out the prospect of more efficient production. But the major force persuading the industrialised nations to contribute to the financing of a Common Fund will undoubtedly be political. The DCs fear that economic instability in LDCs exacerbates political instability, and feel open to charges that they permit, and even encourage, uncontrolled commodity markets to operate against the interests of the producer nations. Furthermore, the DCs have to recognise that the Common Fund has been adopted by many LDCs as the symbol of the New International Economic Order.

Thus the DCs have many pressures upon them to agree to support the establishment of a Common Fund. Despite pronouncements to the contrary, there is good reason to believe that the DCs' resistance to providing equity capital for the Fund will be relatively weak. For, if the industrialised nations decide to treat their contributions to the Common Fund as part of their overall development aid programme, they may choose to finance part of their equity stake in the Fund out of reductions in their expenditures on other forms of development aid.

One effect of this particular means of financing the DCs' share in the Common Fund would be to cause a serious reconsideration of the opportunity cost of establishing the Fund, and throw into question the social rate of return to be expected from the Fund. This is a topic that we shall return to later in this paper.

LDCs have a greater political commitment than the DCs to the establishment of a Common Fund, but they may face one particular difficulty in making contributions to the Fund that will not trouble the developed nations. This is tha some of their own currencies are non-convertible. The nature of a Common Fund suggests that this problem can partly be resolved; for it should be possible for an LDC's Common Fund contribution to be made partly in its own currency to finance local buffer stocks held on behalf of an ICO linked to the Common Fund, although some foreign currency might still be needed for whatever prorata contribution might be decided towards intervention in international markets.

It must be noted, however, that the acceptance of the use of non-covertible currencies as the form of LDC contributions towards the Common Fund does not meet the objective of stabilising economic activity within producer nations; nor, indeed, will the alternative of allowing LDCs to subscribe non-negotiable, non-interest-bearing deposits of convertible currency, if these are activated only when local buffer stocks in the producing area are being built up. For, in both of these cases, to the extent that local buffer stocks are financed out of local contributions to the Common Fund, the economy of the producer nation does not enjoy any injection of demand when such stocks are accumulated. It is only inasmuch as local

buffer stocks are financed by payments of convertible foreign exchange from the Common Fund that the accumulation of these stocks lead to an injection of demand equivalent to the value of export of the stockpile commodities.

Another problem for Common Fund financing concerns access to the IMF and World Bank, which at present have authority to lend only to member governments or, in the case of the IBRD, to international bodies consisting of, and guaranteed by member governments. In the case of the IMF, this applies not only to access to drawings under general quotas but also to access to drawings on the oil facilities, to the compensatory drawing facilities and also to the little used buffer stock facility. In the case of the World Bank, members of the International Tin Agreement experienced difficulty in securing buffer stock financing in 1975 because those who were in receipt of IDA loans were not acceptable for IBRD help towards tin buffer financing. Furthermore, the restrictions upon IBRD lending effectively prevent it from granting loans to ICOs whose membership includes countries that are not members of the IBRD (for instance China, and all Eastern European countries other than Romania), or to ICOs whose membership includes non-governmental organisations. While some of the participants in the present Common Fund negotiations believe that IMF and IBRD rules could readily be changed to facilitate Common Fund borrowing from these two organisations, this cannot be relied upon.

Conclusion:

Despite the various economic benefits from commodity price stabilisation that have been identified, the main pressures upon industrialised nations to contribute to the Common Fund will be political. However, these pressures should be sufficient to ensure adequate equity contributions from the DCs, although there is a danger that Common Fund subscriptions may be financed out of reductions in the same nations' development aid budgets. Other difficulties that might arise in obtaining sufficient equity capital may be reduced if LDCs are allowed to subscribe in non-convertible currencies, and ICOs are made eligible for borrowing from other international financial institutions.

(b) Stock Warrants as Security

Of the various suggestions made in the course of the UNCTAD discussions on the establishment of a Common Fund, the proposal that stock warrants representing commodities held in buffer stock warehouses should be the main form of security offered for loans appears to be the most acceptable.

There is already some useful practical experience of this method of securing buffer stock finance. The International Tin Council was able to negotiate stand-by credit facilities for its buffer stock in 1975 of £13 million from Algemene Bank Nederland and £3 million from Hambros Bank on the strength of the security of metal warrants with a market value of 125 per cent of the value of the loan. As the metal price varied, so the amount of metal pledged as security had to move correspondingly.

Theoretically, the terms of the ITC's financing of its buffer stocks would have allowed it to operate with a maximum possible debt: equity ratio of 4:1. But if the actual debt: equity ratio had been allowed to rise anywhere near to that value, and further equity capital was not readily available, the ITC would have been extremely vulnerable to "bear" speculation against its lower buffer price support level. For example, if the actual debt: equity ratio was 3.5:1, speculators would only have had to push prices less than 3 per cent below the lower buffer to have forced the ITC to sell some of its buffer stock to reduce its borrowing and maintain the 125 per cent security for its loan. If the actual debt: equity ratio of ITC was 3:1, it would still have required only a 6.25 per cent speculator-induced drop in prices below the lower buffer to trigger off destabilising selling by the buffer stock.

In practice, if the buffer stock can demonstrate that its lower support price is viable in the medium term, it should be able to secure additional finance to enter the market and outmanoeuvre the bears, particularly since lenders would not wish to jeopardise the value of the warrants that they hold as collateral for their loans. But no lender or equity shareholder would welcome being obliged to extend their financial support in this way. Therefore, one anticipates that ICOs and the Common Fund will be careful not to become too highly geared, and that consequently they will restrict the amount of borrowing that they undertake against the security of stock warrants.

There is, however, an important practical difficulty about the use of warrants that needs to be faced. Unless buffer stocks are owned by a Common Fund, banks and other lenders might prove reluctant to lend to a Common Fund against warrants for stock owned by another party, that is, an individual buffer. For, where ICOs draw on a Common Fund against the security of stock warrants, the Common Fund may not be able to use such warrants as collateral for market borrowing of its own, since such warrants would not be considered as the Common Fund's property to be pledged. The other side of this practical problem is that if a way is found by which banks and other lenders are willing to advance funds directly to a Common Fund, mechanics would need to be designed to give buffer managers rapid and uncomplicated access to their financial entitlements from a Common Fund at times of heavy market intervention.

Conclusion:

Stock warrants represent widely acceptable, well tried forms of security for loans to the Common Fund. Some problems that may arise are the result of an excessive reliance upon this form of borrowing, which leaves the fund vulnerable to bear speculation. With moderation in warrant-backed borrowing, and a refusal to countenance high debt: equity ratios, the difficulties caused by high gearing should not trouble the fund unduly. A solution may be less readily found for the difficult problem of persuading lenders to accept ICO warrants as security for Common Fund borrowing.

(c) Intervention in Futures Markets

A third way of easing the burden of raising finance for commodity buffer stocks is familiar to dealers in world commodity markets, but has been little mentioned in the discussion of buffer stock finance. This is the strategy of taking advantage of the credit available in commodity markets and concentrating buffer stocks' intervention in the area of futures contracts.

Terminal commodity markets, like the London Metal Exchange, the Chicago Board of Trade or the Sydney Futures Exchange, deal in futures contracts, representing commitments to deliver commodities at specified dates in the future. When the spot prices for immediate delivery of a commodity are generally considered to be high, as is the case in the coffee and cocoa markets present, the price of a futures contract will be below that of a contract for immediate delivery. This state of affairs is known as a "backwardation". The reverse situation, where spot prices are considered to be low, is typified by the copper market today. In this situation, the price of the futures contract stands above that of a contract for immediate delivery. This is known as a "contango" in the terminal market.

Over the past year, stocks of copper amounting to 600,000 tons and worth up to £550 million during that period have been financed on the London Metal Exchange by means of the contango. It has been estimated that as much as 90 per cent of the LME copper stocks are owned by financial institutions,

which match every purchase of physical metal with a sale of a three month forward contract for the same metal. After due allowance for warehousing costs, the contango on copper offers these institutions a return slightly above that available on three month interbank lending.

At the bottom of the commodity price cycle, the contango will never rise much above the appropriate short term interest charge plus warehousing costs, because financial institutions will find it attractive to buy physical commodities and earn a return by selling them forward. Hence, a buffer stock agency seeking to support a commodity price may choose to do so somewhat indirectly by buying heavily in the terminal market. This forces up the price of futures contracts, and the spot price for physical delivery will inevitably follow its lead, linked as it is to the forward price by means of the contango.

The appropriate strategy at the top of the market is the exact opposite. The buffer stock should sell futures contracts heavily, which will cause a backwardation to appear. Anyone holding surplus stocks of material that they do not require immediately will find it profitable to sell these surplus stocks and buy a corresponding amount of material at the lower forward price for delivery in the future.

The attraction for a buffer stock in this course of action lies in the fact that the purchase or sale of futures contracts takes place in terminal markets where only a fraction of the total money value of the contracts is actually required to be paid before the contract falls due. To deal on a futures market, one need only deposit with one's broker or a market clearing house a "margin" of a certain proportion of the value of a contract, and subsequently "margin the contract up or down" in line with movements in the underlying value of the commodities covered by the contract.

The final payment or receipt of outstanding amounts is left until the date the contract falls due.

Provided the buffer stock always sells or buys back its futures contracts before it is due to take or make delivery of the material specified in them, it can influence commodity prices without having to find finance for more than a certain proportion of the value of the commodities that it is dealing in. Relative to the reduced capital requirements of the Common Fund, the running costs of buffer stock operations, such as interest payments and warehousing charges, which are embodied in the contango at the lower buffer stock support price, may look high. But they are much the same* as would have had to have been incurred if buffer stock intervention had been restricted to physical markets. Thus the buffer stock obtains the benefits of a lower capital requirement without having to pay additional running costs on its operations.

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* In reality, one anticipates that the interest rate embodied in the contango will be very slightly higher than that paid by a buffer stock on its own borrowings on account of the buffer stock's high credit rating. See also the criticisms in the section that follows.

Conclusion:

Buffer stock intervention in futures rather than physical contracts should enable the Common Fund to reduce its requirement for financial backing without any corresponding increase in current costs. Transactions in terminal markets can be completed upon the payment of only a certain proportion of the value of contracts. Yet, through the contango at the bottom of the market and backwardation at the top, buffer stocks retain their control over spot prices.

(d) The Security of Forward Sales

One of the advantages of futures markets is seen to be the manner in which security in the form of the commodity warrants being dealt in, is used to advantage by both buyers and sellers. For it enables both sides of the market to operate with only margin deposits. Unfortunately, this strategy is not entirely without its possible shortfalls. One such problem is that margin requirements are not fixed, but are usually determined in such a way that they move up and down in line with the value of the material specified in the futures contract. Therefore, the financial requirements of a buffer stock may fluctuate considerably. Another problem is that borrowing funds indirectly through the contango will probably be slightly more expensive than doing so directly through financial institutions. The most serious problem, however, is likely to be the difficulty inherent in attempting to stabilise prices via the backwardation at the top of the market. Unless a buffer stock has managed to arrange at a period of high prices to be "long" in futures contracts (i.e. a net buyer for forward delivery), a strategy of creating a backwardation by selling contracts for future delivery may leave the buffer stock exposed to substantial losses. The buffer stock may find itself committed to delivering stock warrants on a date when the spot price is very high, and when the buffer stock can only acquire the warrants that it needs by bidding the price even higher still.

At the bottom of the market, the likelihood of large losses on futures contracts is very much less than when prices are high. Yet one must not forget that the very factor that makes it easy for the buffer stock to be a "bull" in the futures market - namely the possibility of dealing with only margin deposits in the way of financial stakes - also makes it easy for "bears" to sell forward on a large scale.

The difficulties associated with price stabilisation and buffer stock intervention through terminal markets strengthen the arguments for a reliance upon buffer stock dealing upon physical markets. However, this does not mean that buffer stock activities should ignore futures markets. Instead, one could argue that a mixture of physical and forward trading may provide the most favourable method both of stabilising prices and of securing adequate finance for buffer stockpiling.

To understand this argument fully, one must first appreciate why it is that financial institutions are able to earn the contango from their current activities in the copper market. They can do so because risk-averse copper consumers and speculators find it attractive to buy forward and ensure delivery of the metal at the price quoted in the terminal market.

The creation of the Common Fund will add to the copper market an international buffer stock, aiming to stabilise the copper price and earn a target rate of return from doing so. The buffer stock fund will make price forecasts, and calculate a plan of intervention in the market which will enable it to attain its objectives. When the market learns of these plans,

it must evaluate them and incorporate them into its own price forecasts. If the buffer stock's forecasts are convincing and appear to take full account of the information available, the market's forward prices will be very close to those predicted by the buffer stock, with risk-averse consumers and speculators prepared to buy forward at these prices.

The relevance for the present discussion lies in the fact that the successful implementation of this policy would imply that the buffer stock, having made its desired purchases or sales in the physical market, could sell its metal stocks forward in the terminal market, thereby guaranteeing the rate of return of the buffer stock fund during the period of the forward contract. Accordingly, there should be little difficulty in demonstrating the existence of adequate security for loans to the buffer stock.

The argument for reliance upon forward sales in this form is largely one about assuring finance for buffer stock operations. But there are other reasons for favouring this framework. Not least among these is the strong incentive that it gives for improving and refining price forecasts, so that the buffer stock can improve its role as stabiliser.

Conclusion:

If the Common Fund chooses to rely upon intervention in the physical commodity market, rather than adopt the proposal made in section (c) that terminal markets be used instead, there still remains a role for terminal markets to play, determining forward prices that will make the raising of debt finance easier. The key ingredient in the success of this strategy is a wide acceptance of the reliability of the buffer stock organisation's price forecasts. To the extent that accurate price forecasts are an essential feature of price stabilisation programmes, the special test to which the forecasts will be put by the futures markets will make the incentive for good forecasting correspondingly sharper.

4. TERMS AND CONDITIONS FOR LENDING TO ICOs

A major difference that has already been noted between the principal source of funds and pooling form of a Common Fund is whether or not uniform lending rules and target rates of return should apply to all commodity buffer stocks affiliated to the Common Fund. Since the social and distributional implications of buffer stock policy may be expected to vary from commodity to commodity, there is very good reason to suppose that the best compromise strategy for a Common Fund would involve the acceptance of differing target rates of return among different buffer stocks. However, a centralised fund lending to individual ICOs will find it extremely difficult to discriminate between ICOs in the conditions it attaches to loans for buffer stockpiling. Hence, differences in the objectives of commodity agreements will have to be accommodated within the framework of a Common Fund by means of an autonomous component in the financing of each ICO. It will be this autonomous component that will have to bear the burden of the element of subsidy in a commodity agreement.

Direct lending by the Common Fund to ICOs will probably be based upon the example of the IBRD, with a uniform interest rate charged on borrowing, and fixed high enough to cover the average cost of capital to the Fund, which also leaves a margin which could be transferred to help to finance non-buffer stock activities. However, there are two aspects of lending by the Common Fund that remains to be settled. The first is whether a commitment charge should be levied on uncommitted amounts of loans

pledged to ICOs by the Common Fund. The second is the question of whether the Common Fund should impose a limit on its lending to any ICO.

(a) Commitment Charges

Commitment charges are customarily imposed to recompense a lender for having to retain some of his funds in a semi-liquid form, earning relatively low interest rates on the short-term money market, against the possibility that a borrower will take up an increased share of his borrowing limit. For the Common Fund, making low interest rate loans to ICOs, this particular argument has a negligible power since the interest rates received on the short-term money market will be little different from those charged to ICO borrowers.

A more convincing reason for having a commitment charge is that there are fixed costs associated with negotiating borrowing powers for ICOs. But any means of allocating them to particular agreements and of recovering them through a fixed commitment charge is likely to appear discriminatory. The addition of a uniform supplement to the interest rate charges to the ICOs is currently considered to be the most widely acceptable way of covering such fixed costs and of avoiding the problem of apparent discrimination.

Conclusion:

While some commitment charge is justified, any method of identifying such charges with particular ICOs reeks of discrimination. Therefore, a uniform supplement on the interest rate charged on loans from the Common Fund is likely to have to be introduced instead.

(b) Limits on lending to ICOs

The matter of limits on the amount of loan finance that will be allowed to be made to an ICO by the central Common Fund is more contentious. While it is acknowledged by everyone concerned that the determination beforehand of rigid upper limits on the level of borrowing permitted by an ICO might leave that buffer stock vulnerable to a concerted attack by bear speculators, there is also a widespread recognition of the fact that it is unrealistic to give an unrestricted open pledge to provide financial backing for every ICO.

The scale of the financial support required to sustain even a "viable" buffer stock* will almost certainly be much greater than the $6,000 million that has been suggested by UNCTAD. Work by the Commodities Research Unit for the US State Department on copper buffer stocks** suggests that the UNCTAD estimates may understate the true level of financial backing required for a successful Common Fund by as much as a factor of 3. Indeed the eventual financial requirements may be higher than this, if, in times of economic recession, commodity producers, merchants and end-users effectively shift their own commodity stocks to an ICO buffer stock.

* Where, by "viable" we understand a buffer stock that should achieve its target rate of return in the long-run.

** Co-ordinated National Stockpiles as a Market Stabilizing Mechanism - Copper CRU, February 1977. See also OECD, Buffer Stock Size and Compensation under a Common Fund, 1976, and J.R. Behrman, International Commodity Agreements, Overseas Development Council Washington D.C., 1977.

Consequently, it is likely to prove extremely difficult to secure agreement on a liberal availability of funds to ICOs. The setting of ceilings on the level of lending possible to a group of ICOs taken together has been proposed as a compromise method of preventing the Common Fund from assuming an open commitment to defend untenable prices, while allowing some freedom of manoeuvre in its lending. However, this proposal shares the failing of other schemes in that it still establishes, albeit indirectly, a clear limit to the level of support available to support a buffer stock against a "bear raid".

A point of great importance in the current negotiations is whether the role of a Common Fund should be confined to that of a bank or whether it should be drawn into decisions about appropriate ICA intervention points. At present, the weight of proposals is that a Common Fund should not be drawn into the latter role. But, some academicians and negotiating parties favour a system under which ICOs would have virtually automatic access to given Common Fund quotas, with borrowings from the Common Fund beyond those quotas subject to Common Fund conditions about borrowings by any ICO above its "quota". Whatever merits such a modelling on IMF procedures may have, its involvement of a Common Fund in buffer policy making distinct from a more narrowly banking role is not a concept which presently appears to have any weighty support in the UNCTAD debate.

Another important point to which it is impossible at this stage to do more than draw attention concerns the actual rates of interest which a Common Fund might need to charge the ICOs. Any discussion of this needs to start from the premise that, while a well-managed buffer can be expected to earn some return, it can rarely be expected to earn a return as high as that from most alternative commercial investment. A concessionary element would therefore have to be injected either into borrowing by a Common Fund or lending by a Common Fund or both, even leaving aside the frankly concessionary terms which would have to be attached to Fund financing of "other purposes" than commodity stabilisation. It is worth pointing out here that the hopeful comparison so often drawn with the World Bank may not be very useful, given that institution's long and extremely well-managed evolution. In the World Bank's latest financial year, for which data is presently available, namely to June 30th 1976, the World Bank's borrowing costs averaged 8.48 per cent. However, the average cost of all funds to the Bank, including paid-in capital and accumulated earnings, which are cost-free, was only 5.6 per cent. And it was this which enabled the Bank to keep its average lending rate at 7.1 per cent during 1975/76. But a newly established Common Fund could obviously not count on such advantages and even an average lending rate of around 7 per cent might not be feasible for ICOs.

Conclusion:

Any attempt to fix an upper limit to the amount of lending that is permitted to an ICO leaves the ICO exposed to bear speculation. Yet, it is equally unreasonable for the Common Fund to be obliged to support an excessively high buffer stock support price. An intermediate position, under which an ICO may negotiate for additional borrowing from the Fund, but must accept a greater degree of control over its buffer stock policy in return for extra finance, may be the most acceptable way of avoiding the problems associated with the two extremes.

5. THE ESTABLISHMENT OF FINANCIALLY VIABLE OPERATIONS

Whether or not the operations of a Common Fund are considered to be viable depends to some extent upon the attitude adopted towards the dividend to be paid on the equity capital invested in the Fund. If the equity capital is treated as having little or no expectation of dividend payments, the rate of return required from Common Fund operations to ensure financial viability will be low. The target rate of return will be merely a weighted sum of the interest rate costs of equity and debt capital, where the weights are the proportions of the total capital stock accounted for by each class of capital.

As long as the amplitude and length of commodity cycles are appropriate (i.e. large and short respectively) and the storage costs are low enough, it ought to be possible to earn the target rate of return from buffer stocking activities. It is worth noting that the recent history of commodity price volatility suggests that the ten "core" commodities considered for inclusion in the Common Fund satisfy these conditions for financially viable buffer stock policy. Unfortunately, financial viability is by itself of only limited value as an indicator of the broad social desirability of Common Fund behaviour.

Some of the social benefits not captured in measures of financial profitability are essentially intangible in nature, such as the political returns. However, there are other benefits to which it should be possible to attach quantifiable values. These are discussed in Appendix 1.

Although the Appendix produces an impressive list of the advantages of buffer stock intervention and price stabilisation, against these must be set the possible disadvantages. The major one is that there may be a high opportunity cost associated with the contributions of equity and debt capital required for the Common Fund. As far as industrialised nations are concerned, their contributions to the Common Fund might be made at the expense of other expenditures intended for the benefit of LDCs.* And in the case of primary producers, the contributions to the Common Fund may force them to reduce the scale of their development programmes, and, in as much as equity investment in the Common Fund is unremunerative, may even reduce their overall credit rating for foreign borrowing.

The former is potentially the more serious, but to the extent that a cutback in development expenditure occurs, the return from a Common Fund should be compared not with the average rate of interest charged on Common Fund borrowing, but with the alternative rate of return available from those development projects indirectly displaced by the Fund's creation.

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* As a tactical point in favour of the pooling approach, it is valuable to note that in the UK direct financial contributions to ICO buffer stocks are likely to continue to come out of the Budget vote of the Department of Trade and Industry, while contributions to a principal source of finance Common Fund would almost certainly be the responsibility of the Ministry of Overseas Development.

Another possible disadvantage is that the distribution of the benefits and costs of price stabilisation may be such as to make the overall impact upon social welfare an undesirable one. Ideally, one would weight the gains and losses from stabilisation by the marginal utility of income of the beneficiaries and losers. Thus, if the poor tend to suffer from price stabilisation while the rich gain, the net impact upon social welfare could be held to be unfavourable.

These disadvantages deriving from the establishment of a Common Fund are not always sufficiently appreciated, and may be of considerable importance. Since many of the benefits and costs of stabilisation, such as the distributional implications, are more readily discernible at the level of individual commodity agreements than in a wider forum, they are best accommodated within the framework of the Common Fund by means of leaving action upon them to the ICAs, which is indeed the present majority view.

Other social considerations raised by the existence of a Common Fund, such as the degree to which it diverts funds from development aid and its impact upon macro-economic stabilisation and the rate of inflation, are not related specifically to individual commodities. Hence, they should be incorporated within Common Fund financing and lending policy in the context of its principal source of funds role.

Conclusion:

While a degree of financial viability may be attainable in many ICO buffer stocks linked to the Common Fund, it is highly questionable whether viability can be the main criterion for evaluating the success of the Common Fund. Many of the indirect effects of price stabilisation are valued highly, and, therefore, tend to imply that even money-losing ICOs should be allowed to operate. However, there are other repercussions, such as the diversion of development aid from other projects to finance Common Fund contributions, or income distributional consequences, that may work in the opposite direction.

Some of these advantages and disadvantages are readily identified at the level of the individual commodity organisations; others apply to the entire Common Fund programme. The former are best accommodated within the autonomous financial component of the ICOs; while the latter must be taken into account in the financial structure of the centralised principal source of finance element of the Common Fund.

6. NON-BUFFER STOCKING ACTIVITIES

Several of the issues that might be supposed to come within the scope of this chapter have already been discussed in earlier sections of this paper. Thus, the treatment of the income distributional repercussions of buffer stock policy has already been touched upon. In general, it was felt that, where these effects could readily be attributed to one specific commodity agreement, the relevant ICO provided the best framework within which to take account of such factors.

This particular approach still leaves unresolved the matter of the precise mechanism to be used to channel funds to ICOs to enable them to meet distributional objectives. Therefore, the final chapter of the paper will be largely concerned with examining the implications for the financing of a Common Fund of including under the Fund's aegis the promotion of a wide variety of non-buffer stock activities.

The non-buffer stock activities that are most likely to be linked to a Common Fund include those relating to schemes for the diversification of production by primary producers, where the interests of more than one group of producers (those away from whose commodity a nation is diversifying, as well as those towards whose commodities it is turning) have to be reconciled. The downstream processing of primary products, research into new uses for commodities, and the development of new techniques for producing commodities at lower costs are other non-buffer stock activities that are commonly associated with the Common Fund.

A less frequently mentioned non-buffer stock activity with which a Common Fund might usefully concern itself is the establishment and/or improvement of international terminal markets. The present paper has already referred to the possible value of a terminal market on which futures contracts can be traded. Not only does such a market improve the overall efficiency of the pricing mechanism, but it also offers ICCs the facility to secure finance for stockpiles, in the manner discussed in chapter 3. However, several of the commodities considered suitable for inclusion in a Common Fund, including tea, rice, sisal and bananas, lack any international terminal market; and in the case of bananas and rice there is not even a major formal international spot market on which ICOs can transact their price stabilising purchases and sales of buffer stocks.

Yet another socially desirable non-buffer stock activity is suggested by the experience in buffer stock management that the Common Fund will gain from its active involvement in buffer stockpiling. As a valuable by-product of its main role, the Common Fund will inevitably develop an expertise in the physical and financial problems of managing stockpiles, which it could usefully make available to nations and organisations dealing in commodities not directly related to the Common Fund. For example, the Fund would be well placed to advise nations with poor transport communications on their best strategies in the stockpiling of staple foodstuffs.

It is a relatively small step from suggesting that a Common Fund takes advantage of its expertise in stockpiling in this manner to proposing, as has been done, that the Common Fund should be prepared in exceptional circumstances to intervene and assist in initiating buffer stocking in commodities that are not covered by the Common Fund.

In some, if not all of the activities just mentioned, the Common Fund would be required to combine a financing role with a measure of aid disbursement. This immediately poses the question whether the non-buffer stock activities ought to be treated separately in the financial structure of a central Common Fund from the financing of its main function as a buffer financing bank. The lending for non-buffer stock activities will almost certainly be made at non-uniform interest rates, varying according to the element of aid in each loan. Also, it will tend to consist of much longer term loans than those associated with buffer stocking.

The special characteristics of non-buffer stock lending are sufficiently distinctive, and such lending is sufficiently unpredictable in its timing to suggest that the example of the Asian Development Bank in setting aside a certain proportion of its funds for soft loans will not be particularly helpful to a Common Fund. The structure of the IBRD, whose IDA affiliate operates and is financed separately from its parent; or the proposal that a Common Fund have a "second window", to receive grants and soft loans from aid donors, with occasional supplementary finance in the form of transfers of income from the Common Fund's main operations, both have more to offer the Common Fund.

One specific problem to be faced is that the long-term nature of non-buffer stock loans means that the non-buffer stock financing body will have a continual need to replenish its reserves, unlike the central fund. In addition, the lack of uniformity in the terms on which loans are made, the difficulty in finding adequate collateral for non-buffer stock loans, and the diversity of activities for which non-buffer stock lending may be requested, all point to the necessity of handling loans for these activities very differently from the more usual lending for buffer stockpiling.

The discussion in this chapter suggests that the case for a separate financial structure for non-buffer stock activities is well-nigh incontrovertible, but the precise structural form that it should take does not seem to be able to be determined beforehand with an equal degree of certainty. One presumes that the finance will virtually entirely be provided in the form of soft loans or outright grants, but beyond that the only rule that one can safely assert that the Common Fund should follow in this area is one of considerable flexibility.

Conclusion

Non-buffer stock activities are unusual both in their low rate of return and long-term lending requirements. In addition, some of them affect more than one ICO directly. In view of this, a separate financial structure, distinct from that used for lending for buffer stock finance, is called for. This need not necessarily be as distinct as the IDA is from the IBRD, but a "second window" is the minimum requirement.

The rate of interest to be charged on non-buffer stock lending will undoubtedly have to vary from project to project; but it would be of administrative assistance, if nothing else, if the degree of non-uniformity in interest rates could perhaps be covered by means of contributions from outside aid agencies.

APPENDIX 1

THE COSTS AND BENEFITS OF PRICE STABILISATION

In this Appendix, we shall describe five of the most commonly mentioned costs and benefits of price stabilisation. The headings under which we shall consider these effects are:-

(i) The Waugh-Massell-Oi theory of the benefits of offsetting random price fluctuations;

(ii) The moderation of the rate of inflation;

(iii) The stabilisation of macro-economic activity;

(iv) The gains as a result of risk-aversion; and

(v) Greater efficiency of production.

(i) The Waugh-Massell-Oi Theory of the Benefits of Price Stabilisation

This particular theory seeks to identify the beneficiaries from price stabilisation, distinguishing, where possible, between cases in which price volatility is caused mainly by random fluctuations in demand, and those in which fluctuations in supply are the cause.* Although the theory has been refined considerably of late, only one result can be considered to apply in virtually all circumstances. This is that, provided the consumers' surplus adequately measures the gains to consumers, and one ignores the costs of storage, the sum of the producers' and consumers' gains from price stabilisation will be positive. The problem is that one side of the market often loses as a consequence of price stabilisation.**

The Waugh-Oi-Massell framework assumes that supply and demand curves are linear and that error terms are additive and stochastic. On these assumptions, producers can be shown to benefit from price stabilisation if the origin of the price fluctuations is variations in supply. Consumers, however, lose from price stabilisation in these circumstances. Where demand fluctuations cause the price to vary, it is the consumers who benefit from the stabilisation of prices and the producers who suffer.

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* An excellent review of the literature on this theory is given in S.J. Turnovsky, The Distribution of Welfare Gains from Price Stabilisation: A Survey of Some Theoretical Issues, Airlie, Virginia, March 1977.

** See the table at the end of this section for an attempt by McNicol to quantify the distribution of gains and losses under certain simplifying assumptions.

With non-linear supply and demand curves, and multiplicative error terms, it is harder to determine the distribution of the benefits from stabilisation. But, if linearity plus additive errors proves to be a good approximation to reality, producers will expect to gain most from price stabilisation in the case of agricultural products,* in which supply variations are the rule; while consumers will have more to gain from price stabilisation where it applies to metals, whose price fluctuations originate mainly on the demand side.

Estimates by McNicol of the gains and losses that the Waugh-Oi-Massell theory identifies as flowing from stabilisation are described in the following table.

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* This may explain some of the enthusiasm of farm lobbies in the EEC and other rich areas for buffer stocks.

TABLE 1

EXPECTED ANNUAL GAINS FROM PRICE STABILISATION

($ million)

Beneficiaries	Supply varies*			Demand varies*			Both vary*		
	producers	consumers	total	producers	consumers	total	producers	consumers	total
Crops									
Cocoa	21.4	-7.0	14.5	-7.5	21.9	14.5	14.0	14.9	28.9
Coffee	28.6	-8.9	19.7	-10.8	30.6	19.7	17.7	21.7	39.4
Tea	8.2	-2.1	6.1	-4.0	10.1	6.1	4.1	8.0	12.2
Wool	153.0	-50.3	102.7	-52.4	155.1	102.7	100.6	104.8	205.4
Cotton	25.8	-5.6	20.3	-14.7	34.9	20.3	11.2	29.4	40.5
Wheat	105.1	-18.9	86.2	-67.2	153.4	86.2	37.9	134.5	172.3
Rice	324.2	-60.8	263.4	-202.7	466.1	263.4	121.6	405.3	526.9
Sugar	226.0	-67.0	159.0	-92.1	251.1	159.0	133.9	184.2	318.1
Bananas	1.8	-0.5	1.3	-0.7	2.0	1.3	1.1	1.4	2.5
Jute	1.6	-0.6	1.0	-0.4	1.4	1.0	1.2	0.7	2.0
Sisal	2.2	-0.9	1.3	-0.4	1.8	1.3	1.8	0.9	2.7
Beef	0.8	-0.3	0.5	-0.2	0.7	0.5	0.6	0.4	1.0
Rubber	15.2	-6.4	8.8	-2.4	11.2	8.8	12.8	4.8	17.6
Copper	114.0	-31.9	82.1	-50.2	132.3	82.1	63.9	100.4	164.2
Tin	27.3	-8.4	18.9	-10.5	29.4	18.9	16.8	21.0	37.8
Iron	57.7	-16.5	41.2	-24.7	65.9	41.2	33.0	49.5	82.4
Bauxite	15.8	-1.3	14.5	-13.2	27.7	14.5	2.6	26.3	29.0

* These are calculated assuming that supply or demand are at least 10 per cent above their base values for one-third of the time, and at least 10 per cent below the base value one-third of the time. Supply and demand are assumed to be linear functions of price, and prices are assumed to be stabilised so as to lie within a 10 per cent price range either side of the long run trend price. Storage costs are ignored.

Source: D.L. McNicol, Commodity Agreements and the New International Economic Order, California Institute of Technology, Social Science Working Paper No. 144, November 1976.

(ii) The Moderation of the Rate of Inflation

Monetarists would deny that a reduction in the degree of volatility of commodity prices could, by itself, affect the rate of inflation in the long-term. If the average level of prices is unaltered by stabilisation measures, and only their dispersion is affected, monetarists would attach no special value to the impact of a Common Fund upon inflation.

Some Keynesian believers in the importance of cost-push factors in the inflationary process would disagree with the monetarist view. They contend that cost-push pressures upon prices, transmitted via wages in particular, respond to temporarily high commodity prices through a ratchet effect. Once a sharp rise in commodity prices has been reflected in demands for higher wages, it may prove extremely difficult to force down the rate of wage inflation after commodity prices have stopped rising.

If a belief in the existence of such a ratchet is combined with a belief in the existence of a long-run Phillips curve trade-off between the rate of inflation and the level of unemployment, price stabilisation will possess a considerable value to the extent that it moderates the rate of inflation. Under these circumstances, a reduction in the rate of commodity price rises in a boom will lessen the pressure of cost-push inflation in the long run. Hence, at a given rate of inflation, an economy will be able to operate at a higher level of capacity utilisation than would have been possible without the stabilisation of prices.

Adopting this approach, Behrman* has calculated that the imposition of a stabilisation price band 15 per cent either side of the long term trend price would reduce the rate of inflation in the USA by 0.2 to 0.4 per cent annually. This translates into a potential reduction of between 0.03 per cent and 0.3 per cent in US unemployment that could be made without exacerbating the inflationary pressures in the economy, the figure varying according to which estimate of the US Phillips curve one accepts. Okun's "law" implies that this percentage should be multiplied by 3 to get an impression of the rise in real GNP permitted by the increased employment.

Even if one accepts only the most conservative of these estimates, namely a 0.1 per cent gain in real GNP of the USA as a consequence of price stabilisation, this would still be worth an annual $15,000 million in 1975 US prices. On its own, this would be sufficient to cover any losses associated with a Common Fund.

(iii) The Stabilisation of Macro-Economic Activity

The successful operation of a Common Fund will tend to inject demand into the world economic system at times of economic depression, by buying commodities at prices higher than they would have been otherwise. When the world economy is tending to become overheated, the Fund's operations will siphon off demand as the Fund becomes highly liquid and sells its stockpiles.

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* J.R. Behrman, in pp. 65-66 of International Commodity Agreements, Overseas Development Council, Washington D.C., 1977

The existence of fluctuations in economic activity during the course of trade cycles forces economies to operate on average with a margin of underused capacity, which is brought into production only during booms. Therefore, success in attempts to establish a Common Fund will lessen the volatility of economic activity, and permit economies to function with a smaller average margin of spare capacity.

The exact value of these benefits from stabilisation depends upon the precise form of financial structure employed by the Common Fund, but there is good reason to believe that they may be quite substantial.

(iv) The Gains as a Result of Risk-Aversion

Most governments and economic institutions are risk-averse. In other words, they always prefer a situation with limited fluctuations around a given mean to one in which volatility is greater. The explanation for this is not hard to find: uncertainty is unpleasant; but, more important in practice is the difficulty of making plans were revenues and expenditures unable to be predicted except with very large margins of error.

LDCs, whose economies are open and dominated by their foreign trade sectors, are particularly troubled by the problems of unpredictable movements in their key economic indicators, for they possess very few instruments with which to oppose externally induced blows to their economies. Consequently, any measures that reduce the degree of uncertainty in their activities will be of great value to them.

As with the gains from macro-economic stabilisation, the quantification of the benefits that stabilisation provides to risk-averse producers and consumers may prove difficult, but to judge from the strength of the LDC pressure for the establishment of a Common Fund, they are likely to be sizeable.

(v) Greater Efficiency of Production

Finally, one should mention the advantages that price stabilisation yields in the form of greater production efficiency.

Commodities differ from one to another in the gestation period that is required to translate production plans into reality. Where the gestation period is long, producers are obliged to take a long term view of the underlying trend in output prices; but where gestation periods are fairly short, producers may allow themselves to be influenced strongly by the behaviour of producer prices over a relatively brief period before formulating production plans.

The latter approach is not only myopic: it also encourages productive inefficiency. Resources will be attracted to the production of commodities following periods of high prices, which would have been more efficiently deployed elsewhere if prices had followed more closely their long term trend path.

The magnitude of the gains in productive efficiency as a result of the Common Fund reducing price fluctuations varies considerably across commodities. The benefits are likely to be greatest for agricultural producers, particularly those not producing tree crops, but they may be significant also for capital-intensive mineral producers whose mines have long gestation periods. However, fluctuations in investment in new mineral capacity probably originate more in fluctuations in the profits available for reinvestment, rather than as a result of a short-sighted view of the trend in prices.

The gains in productive efficiency in agriculture may well prove to yield economic benefits over and above those experienced by the individual agricultural producers. With reduced price volatility, particular geographical regions can afford to specialise in the production of those commodities in which they have a comparative advantage. For, with price stabilisation, the diversification of production in order to spread risks becomes unnecessary. Furthermore, specialisation in production encourages the development of infrastructure, marketing and processing activities, all of which enjoy economies of scale. In the long-run, the advantages conferred on producers and consumers alike by these external benefits may prove to be at least as important as the more direct, tangible benefits on the production side.

APPENDIX 2

THE OBJECTIVES OF A COMMON FUND

At the Nairobi meeting of UNCTAD in May 1976, the main objectives of the Integrated Programme for Commodities, of which theCommon Fund is to form a key constituent, were set out explicitly. The relevant passages were the following.

"With a view to improving the terms of trade in developing countries and in order to eliminate the economic imbalance between developing countries, concerted efforts should be made in favour of the developing countries ...

(i) To achieve stable conditions in commodity trade, including avoidance of excessive price fluctuations, at levels which would be remunerative and just to producers and equitable to consumers...

(ii) To improve and sustain the real income of individual developing countries through increased export earnings..."

Thus there are three main strands of thought behind the Integrated Programme for Commodities. The raising of the real price of primary products and a consequent improvement in the terms of trade facing LDCs, presumably through the incorporation of production restrictions and export quotas within individual commodity agreements (ICAs), is the first. The stabilisation of commodity prices is the second objective. Inasmuch as this is to be at prices that are "equitable to consumers", the second objective is in serious danger of conflicting with the first. The final aim of increasing the export earnings of LDCs, depends heavily upon trade liberalisation policies, such as tariff reductions; but provided worldwide demand for primary products is sufficiently inelastic, the attainment of the first objective will automatically lead to the third.

In the following appendix we shall analyse the particular role that the Common Fund can play in the attainment of the broad objectives of the Integrated Programme for Commodities.

(a) The Common Fund and Shifts in the Terms of Trade

It is useful to clarify right at the outset what will be understood by a "Common Fund" in the present paper, so as to avoid misunderstandings later. The Common Fund is the financial institution that will occupy a central role in lending funds to finance commodity buffer stocks. As such, the Common Fund will not be involved in the formulation and implementation of policies related to trade liberalisation or production restrictions. One is tempted to assert that the Common Fund will only concern itself with price stabilisation by means of buffer stockpiling carried out by the ICAs linked to the Common Fund, but this ignores the likelihood that the Common Fund will be required to provide finance for some non-buffer stock activities closely related to the operations of ICA buffer stock schemes. Therefore, for the purposes of this paper we shall restrict ourselves to a study of the financial structure of a Common Fund, defined as the central financial institution lending funds to finance commodity buffer stocks and closely related activities.

In view of the nature of its activities, one anticipates that the Common Fund will have little to offer towards the objective of shifting the terms of trade facing primary producers as stated in the Integrated Programme for Commodities. Nevertheless, there is an extent to which the establishment of a Common Fund could provide a framework within which the terms of trade of LDCs can be improved.

It is generally agreed that price stabilisation by means of buffer stockpiling yields benefits that may more than outweigh the costs that it incurs. The nature of these benefits is described in some detail in Appendix 1, and some of them will be to the advantage of consumers of primary products. This enables the developed countries to relax their view that an improvement in the LDCs' terms of trade is an inefficient device for transferring income from consumers in importing nations to the LDCs. For, as long as consumers can be shown to be net beneficiaries from commodity price stabilisation, there may exist a small margin for negotiation over the trend in product prices within the context of agreements financed by the Common Fund.

It must be stressed that the shifts in the terms of trade that are attainable within the context of a scheme of price stabilisation sponsored by a Common Fund will be small. Yet the degree to which potential shifts can be realised may be affected by the precise form of financial structure adopted by a Common Fund.

There is reason to believe that the willingness of the developed world to concede higher commodity prices will be less if the funding of buffer stocks is undertaken by one central institution - the principal source of funds approach - than where each ICA is largely responsible for its own finance - the pooling of funds approach. There are certain commodities in which the beneficiaries of price rises are very clearly poor peasant farmers in poor countries. Jute farmers in Bangladesh are a case in point. Hence if, say, the jute ICA is negotiated and financed independently of other ICAs, one imagines that consumers will be less concerned about creating a precedent, and will be more willing to be generous to producers, than they would be if all commodities were subject to uniform rules determined in centralised bargaining.*

Conclusion:

The contribution of the Common Fund to the objective of improving primary producers' terms of trade will be only marginal. The scope for shifts in the terms of trade will be restricted by the extent to which consumers are net beneficiaries from price stablisation. Nevertheless, we believe that a pooling of funds approach will give greater freedom to Common Fund financed ICAs to improve primary producers' terms of trade than a principal source of funds form of the Fund.

(b) The Common Fund and Price Stabilisation

There is less reason to expect producers and consumers to differ about the desirability of price stabilisation. However, the perception of the benefits from stabilisation will generate marked differences between the two groups over the most suitable financial structure for the Common Fund.

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* This point is developed further in section (c) below.

The theories of the advantages and disadvantages of stabilisation are described in Appendix 1. Summarising that Appendix briefly, there are five main effects of stabilisation to distinguish between, namely: (i) those gains to consumers and producers that have been traced to a buffer stock offsetting random and short-term fluctuations in supply and demand; (ii) the possible reduction in the rate of price inflation if some sort of ratchet tends to cause the initial inflationary impact of high commodity prices to persist; (iii) the benefits from world-wide anti-cyclical policies along Keynesian lines, that occur if a Common Fund boosts economic activity during periods of economic recession and moderates the upsurge in activity when the world economy is booming; (iv) the increased efficiency of production that follows price stabilisation, as a result of high cost production units no longer being brought into operation on account of a false optimism engendered by periods of high prices; and (v) the greater ability of producers and consumers to plan when price uncertainty is reduced.

Effects (ii) and (iii) are generally considered to generate benefits of value mainly to advanced economies, while (iv) and (v) are valued more highly by LDCs. The distribution between producers and consumers of the gains identified in (i) has attracted a considerable amount of academic interest, but little that is conclusive emerges, other than that the distribution varies according to circumstances from commodity to commodity.

Another important difference to note between effects (ii) and (iii) and the other three listed above is that, whereas the benefits noted in (ii) and (iii) apply to the entire set of commodities covered by the Common Fund taken together, the advantages described under headings (i), (iv) and (v) will be closely associated and identified with individual commodities. The practical significance of this lies in the conclusion to be drawn that the interest of consumers in the establishment of ICAs as part of the Common Fund will be different from that of producers. Industrial consuming countries will value each individual commodity stabilisation agreement highly, viewing such agreements as landmarks in the stabilisation of world economic activity. However, this does not mean that the consumers will prefer a centralised Fund structure. Each ICA is, for them, a valuable building block in achieving world wide stabilisation; but each block should, in their opinion, be appraised carefully and separately. Both they, and the producers, acknowledge that a centralised Fund structure will hasten the formation of ICAs; and it is precisely to prevent this occurring on an indiscriminate scale that the consumers tend to favour a slower, more careful, piecemeal approach to the establishment of buffer stocks. The producers, however, despite the more specialised nature of their interest in stabilisation (some will possibly be interested in the creation of only one ICO) will press harder for the formation of a central financing facility, believing this to be the best strategy for securing the rapid formation of the particular ICOs that they are interested in.

The differences in the emphasis of the two groups will be reflected in different approaches to financing a Common Fund. Producers may be characterised as valuing the whole (a fully operational system of linked ICAs) more highly than the sum of its constituent parts. Consumers, for their part, attach most value to the constituent parts - the ICAs.

In practice, the divergent priorities of the two groups will mean that producers will be prepared to make a larger financial contribution to a principal source of funds version of Common Fund than to the component ICAs linked together by a pool of finance. The consumers' willingness to commit funds to the two alternatives will have the opposite ranking. As we argue throughout this paper, the most satisfactory resolution of this conflict of option over the most desirable structure of the Common Fund will be a compromise, with a principal source of funds component to its financing, as well as a pooling of funds subscribed to the various member ICAs.

Conclusion

The stabilisation of prices by a successful Common Fund yields five main identifiable categories of benefits. The benefits perceived by producers are related mainly to the establishment of a broad Common Fund, linking several ICAs, whereas the advantages that appeal most strongly to consumers are centred upon the separate ICAs. The differences of perception of the gains from price stabilisation imply differing approaches to Common Fund finance. Producers will display a preference for a principal source of funds version of a Common Fund, while the consumers will favour a pooling of funds approach.

(c) The Common Fund and Income Distribution

The consideration of the benefits and costs of stabilisation and of the possibility of improving the terms of trade facing primary producers serves to highlight one particular aspect of the debate about the Common Fund that warrants closer examination. This is the matter of income distribution.

At its heart, the Integrated Programme for Commodities is a programme for redistributing income internationally. On the surface, the Common Fund is the only constituent of the Integrated Programme in which explicit income distributional objectives have little or no role to play. Indeed, this helps to explain why the Common Fund proposals have progressed further than others in the Integrated Programme. Yet there remain several areas - for example, the distribution of the costs and benefits of price stabilisation, and the provision of finance - in which income distributional considerations impinge upon the Common Fund.

The manner in which the distribution of the costs and benefits of price stabilisation relates to income distribution internationally is self-evident. However, the way that the provision of finance affects income distribution requires some further explanation.

All the plans formulated for financing the Common Fund speak hopefully of obtaining equity capital at little or no opportunity cost, in addition to raising loans at favourable interest rates. In other words, it is hoped that the Common Fund will be able to raise equity capital without being expected to pay a regular monetary dividend, such as would be paid on more conventional forms of investment. In these circumstances, merely to break even and operate a "viable" buffer stock (in the sense of not making a financial loss) implies an element of redistribution from the buffer stock equity holders to the beneficiaries from stabilisation.

Many economists believe that nations' involvement in the Common Fund will prove to be like a non-zero sum game, so that one country's gain from its establishment need not be offset by another nation's or set of nations' loss. However, this does not upset the argument that income distributional considerations impinge upon the Common Fund. For there still remains the need to take account of the distribution of the benefits of the Common Fund among participants and non-participants alike.

Once one appreciates the sense in which any decision regarding buffer stock financing and viability contains implicit value judgements regarding income distribution, one must acknowledge the likelihood that the most popular proposal for financial targets for buffer stocks, namely that all buffer stocks should aim at achieving the same rate of return, will be

sub-optimal. For each ICA there will be a trade-off between buffer stock profitability and the degree of price stabilisation. Stabilisation in turn yields certain benefits and a particular distribution of them. Ideally, the value of these should be captured in measures of the social rate of return (discussed in Chapter 5). However, unless all Common Fund contributors are willing to abide by the estimates of shadow prices used as a basis for calculations of social rates of return, and, even more important, unless Common Fund contributors are prepared to meet losses in the case of a buffer stock which has a very high social rate of return but does not meet the target financial rate of return, it may prove impossible to attain anything like the best combination of price stabilisation and buffer stock profitability.

To take a hypothetical example of the possible conflict that may arise between financial and social objectives, it is conceivable that a small loss on jute buffer stock activities would generate considerable benefits for Bangladeshi jute farmers, at relatively little cost for jute consumers; while for another commodity, the activities of a profitable buffer stock would effectively transfer income from poor producers to rich consumers. A principal source of funds would be under pressure to apply the same financial criteria to both cases, regardless of their different merits. The same need not be true of ICAs with their own sources of finance. If, in our example, a jute agreement is widely believed to be a particularly effective way of channeling aid to Bangladeshi peasant farmers, jute consumers may agree to allow a large element of aid, in the form of underwriting buffer stock losses, to be included in the financial arrangements of the jute ICA.

The contention that considerations about the international and intra-national distribution of income should impinge upon buffer stock decisions has implications that stretch beyond those already mentioned. One that is believed to have surfaced already at the International Cocoa Organisation concerns the introduction of price supports when governments in producer areas do not pass higher prices on to farmers. Higher export prices in these circumstances will have little or no effect upon supply and an equally limited impact upon the incomes of peasant producers. Although it might be argued that there still exists some redistribution of income to LDCs, one imagines that consumers would prefer to see higher world prices reflected in local producer prices.* As with the other points already made about income distribution, it is probably easier to accommodate some kind of understanding regarding domestic producer pricing policy within a pooling of funds agreement than within a principal source of funds agreement.

The issue of the distribution of the benefits of higher producer prices within a producer country leads naturally on to the question whether the appropriate indicator of a nation's interest in a particular commodity agreement will be given by its gross production and consumption or merely by the

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* One presumes that consumers would have to accept a certain level of export taxes as consistent with the theory of optimal tariffs. This theory points out that where, as with Brazil in the case of coffee, Malaysia with rubber, Ghana with cocoa or Bangladesh with jute, a relatively small proportional change in a nation's output will alter world prices, that particular nation's net earnings from the commodity in question will be maximised by fixing a domestic producer price somewhat below the world price. The gap between the two prices is equivalent to an export tax.

nation's involvement in international trade. The fact that a government could theoretically redistribute income between its own domestic producers and consumers and stabilise internal prices does not mean it will happen. If a country like the USA is both a major producer and consumer of a commodity whose domestic price follows closely the non-USA price (copper is a good example), one must conclude that its interest in price stabilisation will be considerably greater than that indicated by its net foreign trade position.

Conclusion

Whether or not it explicitly takes account of them, the creation of a Common Fund raises questions relating to the distribution of income between producers, consumers and the subscribers of capital to the Fund. Since the distributional questions have both intra-national as well as international aspects, they suggest that the ICAs linked to a Common Fund may be obliged to take an active interest in the internal commodity policy of member nations. In addition, income distributional considerations may imply that the optimal policy for some ICAs would be to run their buffer stock operations at a financial loss. This would be easier to accommodate within a pooling form of Common Fund than with a principal source of funds approach.

(d) The Common Fund and Compensatory Finance

The issues covered in section (c) under the broad heading of income distribution are likely to prove among the hardest to incorporate within the framework of a Common Fund. Nevertheless, they are very relevant to the present study since they appear to lead to a slight preference for a pooling over a principal source of funds approach, on account of the former's greater ability to permit some differences between the financial behaviour of individual commodity buffer stocks.

The conflict between social objectives, the use of a Common Fund as an intermediary in the disbursement of economic aid and the desire for financial viability in Common Fund operations* also arises in what have come to be called the "non-buffer stock activities of a Common Fund". However, in their case, a principal source of funds clearly constitutes the best financial structure. Non-buffer stock activities have come to be equated with measures to encourage primary producers to diversify their economies, or to improve their production techniques, but the heading was once considered to include also an element of compensatory finance designed to stabilise a country's revenue.

In the case of commodities, such as metals, whose prices vary mainly as a consequence of fluctuations on the demand side of the market, successful price stabilisation by a Common Fund will lead to a considerable measure of supply stability, and, therefore, of revenue stability. Consequently, price stabilisation will do away with the need for a separate compensatory finance facility for many mineral producers.

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* Although, as we note above, the financial viability is illusory, assuming, as it does, that equity capital is equivalent to an interest-free loan, with no expectation that dividends will ever be paid.

The value of a compensatory finance facility to the producers of crops characterised by large, unpredictable supply shifts is unimpaired by the establishment of a Common Fund. Inasmuch as a Common Fund would obviously be well placed, by virtue of its close involvement with the ICAs, to keep a close eye on changes in export earnings caused by unplanned supply fluctuations, it is an eminently suitable institution to administer an international compensatory finance facility. However, there is a natural disinclination on the part of prospective Common Fund subscribers to impose extra duties upon an, as yet, untried institution, especially when there already exists the IMF facility and the EEC's STABEX scheme, which, if expanded sufficiently and broadened in scope, should be capable of meeting the demands for revenue stabilisation emanating from LDCs.

Conclusions

Although success in the stabilisation of prices should reduce the need for a separate export revenue stabilisation facility for metal producers, there remains the need for some such facility for many agricultural exporters. The Common Fund might seem well placed to administer the facility, but the existing IMF and EEC facilities, if granted greater powers, are likely to continue to bear the main responsibility for compensatory financing.

APPENDIX 3

AN INTERNATIONAL COMMODITY CURRENCY

Most of the proposals for securing Common Fund financing, discussed in this paper are fairly conventional. However, one cannot present an evaluation of the Common Fund without mentioning a less conventional approach to buffer stock finance, namely the proposal that the Common Fund could be employed as a means of creating an "international commodity currency".

Hart, Kaldor and Tinbergen presented the case for a commodity-backed international reserve currency to UNCTAD in 1964, suggesting that monetising primary commodities would make the new currency acceptable. They envisaged that an international currency reserve fund would combine the objective of commodity price stabilisation with its role as a controlling authority over the supply of international liquidity. In the June 1973 issue of the Economic Journal, John Williamson surveyed the literature on "International Liquidity" and reviewed reactions to the Hart, Kaldor, Tinbergen proposal. By and large, these are hostile to a link between commodity stockpiles and an international reserve currency.

The main objection to a commodity reserve currency is that, if it is adequately to cater for the world's growing demand for international liquidity, an ever increasing volume of commodities would have to be tied up in stockpiles, unable to perform any useful productive purpose, and held there merely to provide the necessary backing for world trade. Williamson refers to estimates that if the world adopted a full commodity standard for international liquidity, the annual resource cost would be $6-8,000 million, which is to be contrasted with the negligible resource cost of a system of pure fiat money. Although primary producers would benefit considerably, one cannot imagine consumers sanctioning transfers of this order.

Another important practical objection is that it may prove extremely difficult satisfactorily to combine a reserve currency role with the objective of buffer stock intervention so as to ensure price stability. The latter function may require the Common Fund to hold little or no material in buffer stockpiles at some times, and substantial amounts at others. Furthermore, the commodity composition of the stockpiles will change over time. All in all, it is hard to imagine that a price stabilising Common Fund would always find itself holding assets that were considered entirely suitable as the basis for the main international reserve currency.

Nevertheless, this, and other, objections do not rule out the possibility that a Common Fund might be financed in part by the issue of SDRs, and that it might act as a stimulus to the use of the SDR as an international reserve currency*. But, one would be wise to assume that, initially at least, finance for a Common Fund will have to be secured primarily through conventional methods, without the possible benefits of a radical transformation of the world monetary system.

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* See, for example, G. Bird, The Role of SDRs in Financing Commodity Stabilisation, Journal of World Trade Law, Vol. 10.4, July/August 1976.