World commodity prices: Still a problem for developing countries?

Sheila Page

and

Adrian Hewitt

Overseas Development Institute

A British Library Cataloguing in Publication Data record is available on request.

ISBN 0 85003 521 X

Typeset by ODI
Printed by Folium

Contents

List of Tables and Charts

Acknowledgements

This study was originally prepared for the Directorate for Research of the European Parliament. We are very grateful for their interest in this topic and for their financial support.

In preparing it, we interviewed officials of the European Commission, the World Trade Organization, UNCTAD, and the Common Fund for Commodities. We are grateful for their responses to our questions, both about technical arrangements and about the possible policy implications of our findings.

The sections on reducing dependence on commodities and on compensation payments to the poor were prepared by Henri Bernard Solignac Lecomte and the chapter on derivative instruments by Benu Schneider.

None of these is responsible for the remaining errors or our interpretation.

Summary

Commodity prices have fallen relative to manufactures and services and are likely to continue to do so. There is little scope for increasing the volume of sales sufficiently to counterbalance this. Therefore the long-term strategy for development for most countries must be to reduce dependence on commodities and move into production of manufactures or services.

This cannot happen overnight, and the difficulties of adjusting to low and falling commodity prices have been increased by the withdrawal of official support (national and international) for commodities. Financial instruments exist in developed countries for some commodities which allow producers to transfer some of the price risk to the market.

Appropriate assistance to developing countries can help create the conditions for a successful diversification: good physical, social, and institutional structure: transport, communications, health, education, laws, banking system. Developed countries can ensure that their trade policy offers the same treatment to all developing country exports to avoid favouring traditional commodities or discouraging new products and services. There are structural problems of monopoly in commodity markets which require multilateral regulation.

Good institutional infrastructure will also ease the introduction of financial instruments. But using financial instruments has a financial cost, which may be high for poor producers, training and information costs, and institutional requirements. Assistance from countries with financial resources and experience can speed the development of national markets or ease the use of international markets. Any such assistance needs to be linked to a plan for diversification and time-limited to avoid offering a wrong incentive by reducing the expected costs of remaining specialised in commodities.

Some commodities and some types of medium-term fluctuations are not suitable for market-based stabilisation. Some countries and some producers within them are too poor (or small) to enter the markets, even if they exist (or can be created). The countries which remain dependent on commodities are in general among the poorest. Even those countries which can change their structure will continue to face the problems caused by the trend fall in commodity prices until they have made substantial progress in diversification. Assistance to reduce current poverty must be undertaken alongside assistance to create the economic structure which will reduce poverty more permanently.

Part One:
Why commodity prices are a problem for developing countries

1. Introduction

Primary commodity prices and markets behave differently from those of manufactures or most services. Prices have fallen over time, so countries and producers dependent on them find that their income does not keep pace with the costs of imports or the costs of production. The fluctuations in their prices in response to 'normal' changes in demand or supply are larger than those in other prices, increasing the costs to producers of holding stocks or working capital, while some prices are also subject to unpredictable and uncontrollable shocks from weather or new discoveries. Thus producers face the dual problem of lower returns and higher risks. These problems face all countries which produce commodities, developed and developing, but they are more serious for developing.

This is first because of the extent of their dependence on commodity exports, and of their specialisation in one or a few commodities. The problems thus affect a much higher proportion of their economies. But there are additional difficulties: while commodities may be important to them, their own production is often a small share of world markets, so they depend on decisions by others. Commodity production does not offer a clear path for developing countries wishing to upgrade the value added of their output and the skills of their labour forces. In many countries, the producers and workers directly affected by commodity exports are among the poorest parts of the population. Price falls or fluctuations affecting them put exceptional strains on efforts to reduce poverty.

How important are these problems, and what are the remedies? The first section of this paper will review the evidence on how price trends, and price fluctuations affect countries, and the second will analyse the magnitude of the price changes for the commodities most important to developing countries, and to the poorest among these. The nature of commodity markets means that some costs and risks are unavoidable for the world as a whole. Countries, international institutions and aid donors have used a variety of policies to reduce the problems, to protect countries from them by redistributing the risks, or to compensate them for the consequences.

The first potential remedy is obvious, for developing countries to move out of commodities into different types of export: manufactures or services. The fluctuations of individual commodity prices suggest that diversifying into more commodities could reduce the risk of fluctuations in total income. Moving into processing activities related to the commodity may increase income and reduce fluctuations. These solutions may not be feasible for all countries, and are not achievable in the short run, so other policies focus on reducing the costs to primary producers.

Stocks, insurance schemes, and forward markets or other derivatives all impose known costs to reduce unpredictable risks. For each, if the costs are low enough, it may be possible for countries (or producers) to make their own arrangements; if the costs are high (and for poor developing countries, costs may be considered 'high' at a lower level than for developed), it may be necessary to share some of these costs with donors.

If stock or financial schemes require outside support, unless this is effectively managed and clearly time-limited, the subsidies will effectively be encouraging developing countries to continue to produce primary products (by reducing the costs or risks of doing so), which suggests that the aid

should instead be targeted to reduce the consequences of primary production for the country or the poor within it. The two final types of policy considered are therefore direct compensation or aid to poor countries or people.

It is important to distinguish among four types of price problem: short term fluctuations (most characteristic of agricultural products, either within a year for seasonal reasons or from year to year because of normal weather variations), medium term changes (more often seen in oil or other mineral markets, responding to multi-year business cycles in the world economy), permanent changes which affect one or a few countries: new discoveries or technological changes which affect competitiveness; and finally the long term decline in commodity prices. Only the first type of policy, reducing aggregate dependence on commodities, addresses all four. The second has the potential to help on the first three. The stock and financial schemes are most suitable for short fluctuations; for the medium term, their costs are likely to be high. Direct assistance can help on all four.

2. The nature of the problem

Theoretical analysis suggests that commodity prices will fall relative to others because of relatively inelastic demand and because of the lack of differentiation among producers, which means that the markets are purely competitive. In manufactures, the proposition first stated by Prebisch (1950) that prices can be influenced by producers, while labour costs depend on bargaining and union power, as well as on market conditions, has been repeatedly tested and found valid (most recently, Bloch, Sapsford, 2000). Although technology is reducing costs in commodities, efficiency improvements are more likely for manufactures. Synthetic substitutes also depress prices of commodities. The relative importance of long-term factors and market differences is subject to controversy, but the direction of the resulting trend seems well established. This is the clearest reason that commodity dependence places countries at a disadvantage. Their costs depend on other, non-commodity, prices (home and imported), so that costs will rise more than the prices which they can obtain. Their real income will fall because inelastic demand prevents them from offsetting price movements with volume changes. Even among commodities which are exhaustible resources, no major commodities face such imminent and unsubstitutable exhaustion that their prices will rise.

The implications of price fluctuations are more complex. Commodity prices are more volatile than those of manufactures or than in the past. How this affects costs and income in the long term is less certain. The most obvious reason for extra volatility in commodity prices is the presence of natural shocks: these are not predictable or related to previous production or consumption decisions. If there is a reduction in supply, this will produce a sharp increase in price (demand for commodities, particularly the agricultural ones most subject to natural shocks, is relatively inelastic in the short run), and then a slow or rapid reduction, depending on the nature of the commodity, giving 'commodity price cycles with flat bottoms punctuated by occasional sharp peaks' (Gilbert 1999). Where the commodity price is responding to a medium term cycle affecting demand, the high fixed costs means that it has an inelastic supply so prices must adjust. This may lead to depressed prices, possibly for a prolonged period. When demand increases, however, supply will respond. Although this is not immediate (so that some price increase will occur), it is not subject to the same limits as reduction in supply. This suggests that the characteristic behaviour of commodity prices will be shorter periods of rises than falls. This asymmetric behaviour can impose costs on any scheme to balance fluctuations.

Many initiatives for commodity prices assume that fluctuations or the expectation of fluctuations (actual shocks or a high risk of shocks) are damaging. Clearly stockholding or other smoothing strategies impose extra costs of stock holding or other smoothing strategies, but where these are predictable (where the fluctuations are for foreseeable reasons or within normal bounds), they can be considered part of the normal costs of production, rather than a 'problem'. Their effect is to raise the real capital intensity of commodity production above the direct production costs. Unexpected shocks may have different effects, and for governments, uncertainty combined with lack of access to credit which could smooth fluctuations in income makes long-term planning of spending difficult. Recent analysis has attempted to measure the nature and costs of fluctuations (Dehn April 2000, May 2000, Cashin, Pattillo, 2000, Cashin, Liang, McDermott, 1999).

Dehn found that large negative shocks do damage growth, and positive shocks increase investment, but that small changes and uncertainty (unpredictable variations) do not appear to have strong effects. There did not appear to be more shocks or more uncertainty for areas like sub-Saharan Africa, but, not surprisingly, the shocks had more effect in less diversified economies. Positive shocks (unanticipated temporary increases in income) appear to have no permanent effect on increasing income, however, perhaps because of the way in which policies respond to these.

For negative shocks, on the other hand, there is no evidence that the impact is the result of policy changes in response to it; it depends directly on the shock itself, with output and capacity utilisation falling (Dehn April 2000). The effects are therefore asymmetric. The difference between 'large' and other shocks lies at least partly in the practical and cost limits on measures like buffer stocks or insurance to limit their effects. But they may also differ because there is more likely to be a policy response to unusual shocks.

These observations suggest that the problems lie in large real shocks to countries where commodities are particularly important. Most developing countries lack domestic instruments to manage shocks, and the technical expertise to develop them. Many also offer only small markets: low income, often combined with small populations, and therefore they are less able to develop efficient market instruments to deal with shocks. Particularly in agricultural commodities, the producers are likely to be poor, and poor even relative to the country's average income. As the production and trade of commodities are likely to be among the most important sources of government revenue, the government's ability to intervene to offset the effects is limited. Producers are less able to protect themselves. Any shock will be more likely to increase the number of people in poverty and the country cannot afford compensation. The IMF (IMF 2000:112) notes that 'almost all of the countries hit hardest by falling commodity prices are also among the world's poorest. All but two (Brazil and Chile) are classified as low income countries by the World Bank; over half are in sub-Saharan Africa; and sixteen are Heavily Indebted Poor Countries'. The evidence on the impact of shocks (Dehn April 2000, for example) is that their effects on the poorest countries are similar to those on all countries, and therefore greater proportionately because of their greater dependence on commodities. International action may be able to help some to develop their own solutions and provide financial support for those which cannot.

Although this paper is on the effects of commodity prices on exporters, it should be noted that the fluctuations are also potentially damaging to importers, particularly fluctuations in food and fuel prices. Low income countries are unlikely to have the resources to have stocks to take advantage of periods of low prices or insurance against rises, so that they will be asymmetrically affected by price increases. Reducing fluctuations of export prices may help them, but any increase in the average price could reduce their income.

The problems of managing commodity prices have been recognised for more than a century at national level, and since the 1920s as an international problem, but policy and technological changes have increased concern in recent years. Since the 1980s, the scope for national policies has been reduced by budgetary (and outside) pressures to reduce government spending and specifically to reduce intervention in markets. The increased openness of all countries to trade and improvements in transport, creating world markets, and in communications, permitting immediate knowledge of competing prices, have increased efficiency (with production being concentrated in the most appropriate countries). This has put new pressure on prices. The only new influences which might have a beneficial effect in reducing fluctuations are the introduction of the Euro, as fluctuations among the European currencies may be associated with commodity price fluctuations, and increased interest in commodity exchanges and funds from those looking for new investments (Rutten, 1999).

3. Trends in prices

The original concerns about commodity prices were based on pre-1940s data (Prebisch 1950, Singer 1950). Since then, the evidence has been repeatedly surveyed to test whether the falling trend has continued, how serious fluctuations in prices are, and whether either of these problems is becoming worse.

In the late 1950s and early 1960s, real prices of non-fuel commodities were relatively stable (with a peak in 1966) (see chart 1). The rise in non-oil prices (which preceded and then accompanied the oil shock) in the early 1970s brought the highest peak so far observed, in 1974. There was an irregular decline in the second half of the 1970s and early 1980s, and small peaks (each lower than the preceding) in 1988 and 1997. Most recently, there has been a slump accompanying the recession in Asia, a fall of more than 20% in dollar prices from 1997 to 1999. The prices of manufactures also fell in this recession, but by only about 5%. The index for non-oil commodities, deflated by the index for manufactures, in 1999 was 'one half of its annual average for the 1979-81 period, which was about the same as the average for 1970.' (UN, 2000). As the UN notes, 'the two groups for which the developing countries account for the largest shares in world exports, namely tropical beverages and vegetable oilseeds and oils, show the highest rates of decline in prices' (UN, 2000:4). This recent experience thus illustrates both the real decline in commodity prices, relative to manufactures, and the larger fluctuations. Over the period as a whole, if we compare the earliest and latest peaks, 1966 and 1997, the fall in real prices was about a quarter. Comparing the earliest and most recent troughs, 1961 and 1999, gives a fall of about 40%.

If we take the last 20 years, the period in which trade has been liberalised and the current structure of markets has been established, the rates of rise of all export prices slowed compared to the 1970s, from 15% p.a. (under the impact of the non-oil and then oil booms), to 1.4% in the 1980s with a fall in the 1990s, giving an average rate for the period 1980-98 of 0.7%. But within this, manufactured unit values rose about 2% p.a.; agricultural rose only 0.9%, and mining products (including oil) fell at a rate of 3.4%. In the 10 years 1988-98 the implied unit values of agricultural exports were almost constant, for mining products they fell 14%, and for manufactures they rose 7.5%. Prices, which offer early and exaggerated signals of export unit values, fell much more. The price indices show falls of 4% for food, 11% for other agricultural goods, and 34% for minerals (excluding petroleum: in this period oil prices fell 11%).

Fluctuations have increased since the early 1970s. As well as the evidence of the chart, analysis of shocks (Dehn April 2000) finds an increase in the rate of about a third from the pre-1972 to the post-1972 period. If a more general measure of uncertainty is used, the change is confirmed. If the post-1972 period is split in 1985, the uncertainty overall for commodities exported by developing countries did not change after 1986, but may have increased for East Asia and the Caribbean and diminished a little for Sub-Saharan Africa, South Asia and the Pacific (Dehn April 2000: 19). The uncertainties were greater for oil producers and least for diversified exporters.

If we look at the pattern of fluctuations (Cashin, Pattillo, 2000), there appear to be two types: short term (under four years for half the shock's effects to dissipate) and long term (where there are permanent effects). This is important to inform policy suggestions; short-term shocks should and perhaps can be dealt with by saving or borrowing (financial or physical) or by insurance. Long term require permanent changes in the economy. There is also evidence to support the view that at least since 1957 periods of rising prices are much shorter than those of falling (IMF, 2000, finds an average of 37 months for booms and 63 for slumps), so that prices have been falling in most of the period (64%). This difference is much greater than the difference between the magnitude of the price changes (average real rises of 28% and falls of 37%).

What do forecasters expect for the future? The current forecasts for the short and medium term were made in a period when forecasters were very uncertain about the nature of the recovery from the 1998-9 slump in Asian output. Clearly a recovery had begun, but was it because countries had taken the necessary adjustment policies (and more quickly or more effectively than forecasts anticipated in the 1999 forecasts) or was it a temporary recovery which might even put reforms at risk? That is, will growth be better in the future, because more firmly based, or depressed, because of the need to make structural reforms? Given that commodity prices had followed their typical pattern of a large reaction to the fall in output, they can be expected to rise in a recovery, but unless the recovery is exceptionally rapid, the rise will be less than the preceding fall, and if there is a further decline or even stagnation in output, prices will be depressed. The IMF and UN therefore described their 1999 and 2000 forecasts as cautious, 3-5% during the 2000-01 recovery, falling to 3% thereafter (IMF 2000, UN 1999). Even by April 2001, the World Bank (World Bank, 2001), although cutting its estimates for 2000, still expected this to mean only 'a postponement for a generalized recovery in non-oil commodity prices until 2001' (p.21). It forecast a rise in 2002-2003 of 5.5%, returning to the same rate as manufactures after 2005. The good performance is explained partly by an assumption that because developed countries can avoid a prolonged recession, they will, and partly by favourable effects from a devaluation of the dollar. Official forecasts are probably still insufficiently cautious. Non-official forecasts (AIECE, 2000) suggested a rise in 2000 or 2001 of only 2%, with food and coffee prices continuing to fall in 2000. With 2000 already falling behind at 1.6% (Table 1), even 2% would be well above the trend of the last 20 years, and suggest a surprising improvement in relative prices. If low inflation continues, a continuing slow fall in the relative price of commodities is likely to imply dollar rises of 0-1%, punctuated by periods of falls and partial recoveries. If population growth slows and the rise in world income leads to a shift away from basic cereals, the outlook could be even poorer (UN, 2000). With the exception of oil, mineral exports will probably continue to do relatively badly, compared to agricultural exports and non-food agricultural less well than food, because of the long term trends, to use small quantities of inputs per unit value of output. Fluctuations may have increased because of the withdrawal of country and international arrangements for holding physical stocks (UNCTAD/ITCD/COM/7, 1997). As this is largely completed, it will not lead to further increases in fluctuations, but they may remain larger than before the 1970s.

It is important for individual countries to know not the averages, but the performance of individual commodities (the question of whether their prices move independently is discussed later in the section on diversification among commodities). If we look at the period since 1990, almost all commodity prices have fallen (Table 1) with the average for non-oil commodities about 10%. Some edible oils, tea, and wood have performed better: The oils may be replacing other foods (so their good performance may continue, as their share in total food consumption is still low), but some of the recent increase was because of effects from El Niño on Indonesia and Malaysia (UN, 1999), and so will be temporary. The tea and wood performance may continue because of shifts in tastes.

Table 1. Indices of Market Prices for Non-Fuel Commodities, and Petroleum, 1998-2000 1/
(1990=100; in terms of U.S. dollars)

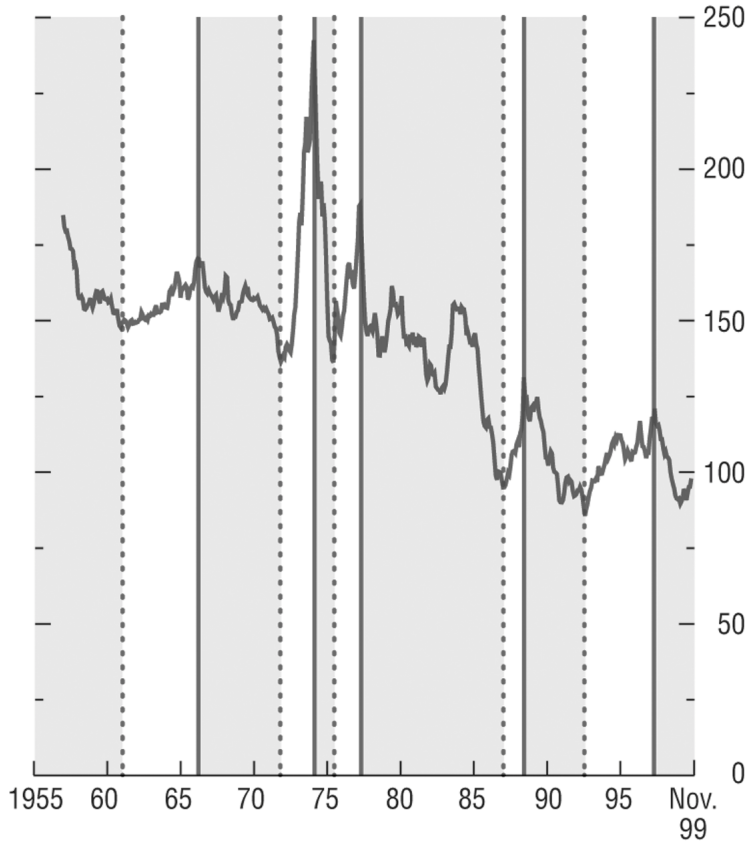
Commodities	Weights	1998	1999	2000	00 Q1	00 Q2	00 Q3	00 Q4	Nov-00	Dec-00	Dec-99 to Dec-00	Nov-00 to Dec-00
Non-fuel Commodities	100.0	96.4	89.6	91.1	93.7	92.0	89.3	89.4	89.3	89.5	-3.6	0.2
Food 2/	32.9	99.7	84.1	83.7	84.5	84.1	80.2	86.0	85.5	88.4	8.5	3.3
Cereals	13.6	96.1	84.1	81.7	82.6	81.0	76.5	86.7	86.3	88.4	12.9	2.4
Wheat	7.4	93.0	82.7	84.1	78.7	81.0	82.3	94.4	94.2	94.5	25.3	0.2
Maize	4.1	93.0	82.6	80.7	86.4	83.9	70.3	82.3	81.4	88.1	10.3	8.2
Rice	2.1	112.8	92.0	75.3	88.6	75.6	68.5	68.4	68.3	67.8	-20.5	-0.7
Vegetable oils and protein meals	10.6	123.0	94.0	91.7	94.0	94.3	87.7	90.8	89.9	94.9	3.4	5.5
Soybeans	4.1	99.5	80.9	85.6	86.1	90.3	81.3	84.8	84.0	88.4	9.6	5.2
Soybean meal	2.8	85.1	76.0	94.7	91.0	93.4	90.5	103.9	102.2	110.8	30.4	8.4
Soybean oil	1.2	139.9	95.6	75.6	81.2	77.2	73.0	70.9	70.8	71.8	-13.0	1.3
Palm oil	1.2	231.6	150.5	106.8	118.5	115.7	103.8	89.1	89.6	90.0	-26.3	0.5
Coconut oil	0.3	195.5	218.4	133.3	177.9	144.1	108.3	103.0	109.0	97.0	-53.4	-11.1
Fish meal	0.9	160.5	95.1	100.1	98.3	95.9	101.8	104.5	100.1	113.2	13.3	13.1
Groundnut oil	0.1	94.3	81.6	73.9	80.2	75.6	69.0	71.0	71.1	72.2	-13.5	1.6
Meat	5.2	70.9	74.5	77.7	80.0	78.6	75.0	77.3	79.4	78.5	-1.6	-1.2
Beef	4.5	67.3	71.5	75.5	76.8	77.1	73.4	74.8	77.2	75.8	-0.8	-1.7
Lamb	0.7	95.8	95.6	93.1	103.0	88.6	86.1	94.8	94.9	96.9	-5.9	2.2
Sugar	2.5	81.2	66.5	73.8	60.2	68.6	83.4	83.2	81.0	82.4	29.9	1.8
Free market	1.7	71.3	50.1	64.6	42.9	56.3	80.2	79.0	76.0	77.7	62.4	2.1
United States	0.2	94.9	90.9	83.4	76.2	82.6	82.1	92.8	93.6	91.8	20.9	-1.9
EU	0.6	102.6	101.5	95.1	100.8	96.4	92.6	90.7	89.4	91.6	-9.4	2.5
Bananas	1.0	90.5	68.8	77.7	91.0	80.3	66.3	73.1	68.2	81.6	24.9	19.6
Beverages	6.8	140.3	110.5	92.2	102.8	95.5	88.6	81.8	81.9	78.0	-33.7	-4.8
Coffee	4.2	149.6	116.4	90.6	109.2	95.5	83.5	74.2	74.3	68.3	-49.1	-8.1
Other milds	3.1	148.5	114.1	95.4	115.4	100.4	87.1	78.6	79.1	72.3	-47.8	-8.5
Robusta	1.1	152.6	123.0	76.7	91.2	81.3	73.0	61.2	60.6	56.5	-53.2	-6.8
Cocoa Beans	1.4	132.2	89.5	71.3	71.1	72.8	71.7	69.5	68.9	70.4	-2.8	2.2
Tea 4/	1.2	117.4	114.3	122.1	117.3	121.7	126.4	122.9	123.4	120.8	7.3	-2.1
Agricultural raw materials 2/	32.3	99.5	101.8	103.3	106.1	106.5	101.2	99.5	100.7	97.1	-8.2	-3.6
Timber 2/	15.5	121.2	134.1	132.2	139.6	138.5	127.4	123.2	126.2	118.6	-16.4	-6.0
Hardwood	5.4	96.4	116.4	116.8	121.9	121.7	116.5	107.2	107.3	105.3	-15.4	-1.8
Logs 2/	1.9	101.6	116.7	118.6	118.2	120.3	119.9	116.0	117.4	112.5	-9.6	-4.2
Sawnwood 2/	3.5	93.6	116.2	115.9	124.0	122.5	114.6	102.4	101.8	101.4	-18.5	-0.4
Softwood	10.1	134.4	143.5	140.3	149.0	147.5	133.2	131.7	136.4	125.7	-16.8	-7.8
Logs 2/	1.8	128.8	133.2	144.9	143.8	147.1	148.1	140.8	145.8	134.4	-7.6	-7.8
Sawnwood 2/	8.3	135.7	145.7	139.3	150.1	147.6	130.0	129.7	134.3	123.8	-18.7	-7.8
Cotton	3.9	79.4	64.3	71.5	63.9	72.2	73.0	77.0	77.5	79.8	49.0	2.9
Wool	3.8	60.9	59.9	61.6	63.9	62.4	61.9	58.2	57.0	54.5	-12.0	-4.4
Fine	2.4	53.1	49.4	46.3	49.8	49.0	45.4	41.1	42.3	36.5	-27.6	-13.5
Coarse	1.4	74.5	78.0	88.0	88.1	85.6	90.4	87.8	82.5	85.5	4.7	3.7
Rubber	3.3	83.5	73.5	79.9	80.9	82.6	79.0	77.3	76.4	76.5	-3.5	0.0
Tobacco 2/	2.2	98.3	91.4	88.3	90.4	88.5	86.9	87.6	87.6	87.6	-5.9	0.0
Hides	3.6	83.2	78.2	87.0	83.1	84.2	88.4	92.2	91.5	92.4	9.5	1.0
Metals	26.7	76.6	75.5	84.6	87.4	82.7	85.6	82.8	81.3	83.9	-0.1	3.3
Copper	6.4	62.1	59.1	68.2	67.5	65.4	70.4	69.4	67.5	69.6	5.0	3.2
Aluminum	10.2	82.8	83.0	94.6	100.4	90.2	95.5	92.4	90.0	95.7	0.9	6.3
Iron Ore	3.7	100.6	89.6	93.5	93.5	93.5	93.5	93.5	93.5	93.5	4.3	0.0
Tin	1.1	91.0	88.6	89.3	93.5	89.3	88.3	86.3	86.5	85.9	-8.6	-0.7
Nickel	1.6	52.2	67.7	97.4	105.9	106.2	93.4	83.9	82.9	82.6	-9.3	-0.4
Zinc	2.8	67.5	70.9	74.3	74.4	74.7	77.5	70.5	69.7	69.8	-10.6	0.1
Lead	0.9	65.1	62.0	56.1	56.3	51.7	58.2	58.2	57.6	57.3	-3.2	-0.5
Fertilizer	1.3	117.1	112.4	106.8	106.6	106.9	108.0	105.5	104.4	103.9	-2.8	-0.5
Phosphate rock	0.7	106.2	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	0.0	0.0
TSP	0.6	131.2	117.2	104.3	103.9	104.7	107.3	101.4	99.0	97.9	-6.5	-1.1
Petroleum												
Spot crude 3/	--	56.9	78.3	122.8	115.6	116.7	129.7	129.2	140.8	110.2	1.4	-21.7
Gasoline	--	58.1	72.9	117.2	110.7	121.6	121.4	115.3	120.6	101.8	11.2	-15.6
Heating Oil	--	39.1	48.8	87.7	87.2	76.5	88.9	98.1	102.7	94.1	40.5	-8.3

1/ Weights are based on 1987-89 average world export earnings.
2/ Provisional.
3/ Spot crude. Average of U.K. Brent, Dubai, and West Texas Intermediate, equally weighted.
4/ Break in series. Mombasa Auction price (Best PF1, Kenyan) replaces London Auction price beginning July 1998.

Chart 1.

Cycles in Real Prices of Nonfuel Commodities, January 1957–November 1999[1]

(1990 = 100)



Sources: IMF, *International Financial Statistics;* and IMF staff estimates.

[1]Cycles are demarcated by peaks (solid line) and troughs (dashed line), with periods from peaks to troughs being slumps (shaded areas), and periods from troughs to peaks being booms (no shading).

4. Characteristics of commodities and markets

The general trends in commodities suggest some constraints on the policies to deal with fluctuations in their prices. Almost all commodity prices are falling in normal years, so simple stabilisation schemes are not feasible. Where there are close substitutes for primary commodities produced by developing countries, any scheme which raises their average price (by stabilising at or above the trend average) will lead to increased demand for the substitute, and possibly a long run shift away from the developing country product. Commodities with short fluctuations may allow more options for dealing with fluctuations than those with prolonged swings. These are usually commodities where the weather is a major source of shocks, thus most agricultural products. Commodities found to have shock persistence periods of less than a year (Cashin, Lians, McDermott 1999) include bananas, hides, softwood, and tea. Those with 1-4 year periods include fish meal, lamb, soybean and soybean meal, and wheat, but also some non-agricultural: aluminium, iron ore, and rubber. Beyond this period it is unlikely that fluctuations could be treated with short term measures. Those in this category include minerals and some agricultural commodities like coffee which have longer production cycles. Those with 5-8 years include some agricultural beef, the edible oils, and maize, all of which are subject to considerable intervention in world trade so that their fluctuations cannot be attributed to or cured by supply and demand factors. Other long-term shock commodities are copper, lead, phosphate, zinc and wool. Still longer duration goods are some types of coffee, cotton, nickel, and also some sugar and rice (again both intervened commodities), with permanent responses to shocks for other coffee, cocoa, hardwood, tobacco, gold, tin and also petroleum). Here shocks normally come not from short-term supply factors, but from long-term changes in demand or the emergence of new suppliers (Cashin, Liang, McDermott 1999). For these either commodity stabilisation agreements or financial measures to smooth fluctuations will be under serious strains.

The effects are greater, and therefore solutions are more needed, when a country is more than averagely dependent on commodity exports. Table 2 summarises the countries with high dependence on a single commodity or a few. This is principally a problem of African economies and some Caribbean, Latin American, and Pacific. In both Africa and Latin America, most of the countries in the table are heavily dependent on more than one commodity, exposing them to two sets of risks, and suggesting a high aggregate dependence on a small number of commodities. 36 of the 51 African countries (34 of the 42 sub-Saharan), 7 of the 13 Caribbean, and 13 of the 20 Latin American countries are on the list. If we combine the information about commodity shock persistence with these data on exposure, 11 of the sub-Saharan African countries face shocks to their terms of trade which are 'permanent': Uganda, South Africa, Nigeria, Mauritania, Kenya, Gabon, Cote d'Ivoire, Congo, Cameroon, Botswana and Angola, and 5: Liberia, Sudan, Tanzania, Zambia, and Congo (Dem Rep) face periods of more than 5 years. Almost all the African countries depend on primary commodities for more than half their export earnings (they account for 45% of sub-Saharan exports, UN 1999) and thus with the possible exception of the oil producers face declining terms of trade. (If oil prices rise, this will further hurt the non-oil producers as many have a high share of oil in their imports.)

28 of the 68 countries dependent on commodities are among the least developed countries, and 60% of the least developed countries are included in the commodity-dependent. Clearly dependence on a few commodities is an important determinant of low incomes. These countries are also small.

Table 2. Countries dependent on a single primary commodity for export earnings

(Annual average of export data, U. S. dollars, 1992-97)

	For 50 percent or more of export earnings	For 20-49 percent of export earnings	For 10-19 percent of export earnings
Countries in Africa			
Crude petroleum	**Angola** *Congo Rep* Gabon[a] Nigeria	Cameroon[a] *Equatorial Guinea*[a]	Algeria[a] Egypt
Natural gas		Algeria[a]	
Bauxite and alumina	*Guinea*		
Iron ore		*Mauritania*[a]	
Rutile			*Sierra Leone*[a]
Copper	*ZAMBIA*[a]		Congo, Dem Rep[a]
Cobalt			Congo Dem Rep[a] *ZAMBIA*[a]
Gold		Ghana[a] South Africa	*MALI*[a] ZIMBABWE[a]
Diamonds		*CENTRAL AFRICA REPUBLIC*[a] Namibia[a] *Sierra Leone*[a]	Congo, Dem Rep[a]
Uranium	*NIGER*[a]		
Timber		*Equatorial Guinea*[a]	*CENTRAL AFRICAN REP*[a]
(African Hardwood)			Gabon[a] Ghana[a] SWAZILAND[a]
Cotton		*Benin* *CHAD* *MALI*[a]	*BURKINA FASO*
Tobacco	*MALAWI*	*Sudan*[a]	
Arabica coffee	*BURUNDI* *ETHIOPIA*	ZIMBABWE[a] *RWANDA*[a]	
Robusta Coffee	*UGANDA*		Cameroon
Cocoa	*Sao Tome and Principe*	Cote d'Ivoire Ghana[a]	Cameroon
Tea			Kenya *RWANDA*[a]
Vanilla		***Comoros***	
Sugar		**Mauritius**	SWAZILAND[a]
Cashew Nuts	*Guinea Bissau*		
Livestock		*MALI*[a]	*NIGER*[a] *Sudan*[a]
Fish	*Mauritania*[a]	*Mozambique*	Senegal Namibia[a]
	For 50 percent or more of export earnings	For 20-49 percent of export earnings	For 10-19 percent of export earnings

Oilseeds			*Sudan*[a]
Latin America			
Crude petroleum	Venezuela	Ecuador[a]	Colombia[a]
			Mexico
Copper		Chile	Peru[a]
Cotton			Paraguay
Arabica coffee			Colombia[a]
	For 50 percent or more of export earnings	For 20-49 percent of export earnings	For 10-19 percent of export earnings
			El Salvador
			Guatemala
			Honduras[a]
			Nicaragua[a]
Sugar			Belize
Bananas		Honduras[a]	Costa Rica
Livestock			Nicaragua[a]
Fish			Ecuador[a]
Fishmeal			Peru[a]
Caribbean			
Crude petroleum		**Trinidad and Tobago**	Guyana[a]
Bauxite and alumina		**Jamaica**	
		Surinam	
Gold			Guyana[a]
Sugar		Guyana[a]	
		St Kitts and Nevis	
Bananas		**St Vincent**	**St Lucia**
Rice			Guyana
South Asia			
Cotton		Pakistan	
Jute			*Bangladesh*
Pacific			
Crude petroleum		**Papua New Guinea**[a]	
Copper			**Papua New Guinea**
Gold		**Papua New Guinea**[a]	
Timber (Asian hardwood)		***Solomon Islands***[a]	
			Papua New Guinea[a]
Copra and Coconut oil	***Kiribati***		***Solomon Islands***[a]
Other Asia			
Crude petroleum		Brunei Darussalem	Indonesia[a]
			Vietnam
Copper		MONGOLIA	
Timber (Asian hardwood)		*Lao PDR*[a]	Cambodia
			Indonesia[a]
			Myanmar
Fish			***Maldives***

Source: Cashin, Liang, McDermott 1999

[a] Country heavily dependent on more than one commodity

Typeface	Meaning
Bold	Island
CAPITALS	LAND-LOCKED
Italics	*Least developed*
Underline	HIPC

For least developed countries, the most important commodities in total are oil (23% of the total), diamonds (10%), coffee (7%), cotton (4%), copper (3%), shrimps (3%), and tropical wood and aluminum (2% each). Others among their top 20 exports are other types of wood and fish, cobalt, iron, and tobacco. Almost all these are among those with long or permanent shock persistence: those where efforts to smooth fluctuations are most difficult. Of the Heavily Indebted Poor Countries (HIPCs), all have more than 80% of their exports in commodities (ITF, 1999).

This limits their market power. Of the 70 major exports by developing countries (UNCTAD, 1999 Handbook), 20 are primary commodities (or very lightly processed metals). Of these, for only 7 do developing countries supply more than half: almost all rubber, more than 70% of coffee, crude oil, and non-soft vegetable oils, and more than 50% of shellfish, preserved fish, and cotton. They supply about half of sugar and honey and more than a third of frozen fish, fruits and nuts, animal feeds, base metals, refined oil, and gas. They are minority suppliers for meat, wood, iron and steel, and aluminium. In many of them, therefore, they may have some market power. But (excluding oil) the countries which are major suppliers are the East and South East Asian and the principal Latin American; the only countries among those identified in table 2 as vulnerable to shocks which are also among the top 10 developing suppliers are Guatemala and Uganda, supplying 3% and 2% of the coffee market, Mauritius 3% of sugar, Chile 13%, and Zambia and Peru, 3% of copper. The countries that are normally the principal suppliers: Thailand, Malaysia, Brazil, Colombia, Indonesia, are no longer highly dependent on a single commodity, and therefore may be less concerned by its risks. Brazil would now be willing to accept the end of the Coffee Agreement. The share of developing countries in total exports of commodities in the 1990s was only just over a quarter, down from almost a third in 1970-72 (UNCTAD 1999 TD/B/COM.1/27), although it had remained level in the 1990s. Western Europe accounts for 43% of world exports of agricultural products, Eastern Europe for 4%, and North America 18%. Asia is also 18%, but Latin America 12% and Africa only 4%. Africa, the region most dependent on commodities, has seen the largest fall in share, from 9% in the early 1970s, to 3% while all least developed countries have seen a fall from 5% to 1% (UN, 2000).

Any action to increase the prices or improve the certainty for producers of most commodities will have most of its effect on developed producers. This may cause the cost of any scheme to exceed its benefits to poor producers. In the case of some commodities, notably sugar, wheat, beef, rice and other commodities where market intervention is significant in developed countries, the trends in the levels and fluctuations in prices will be in part the result of policies. For these, as well, market intervention is unlikely. So it is only the few products both mainly produced by developing countries and mainly subject to short-term fluctuations where price stabilisation may work: rubber, coffee, oil, perhaps fish. The first three have had commodity agreements.

In order to use either physical or financial insurance schemes, countries must have access to capital (private or official). In some commodities, even where developing country suppliers are important, trade is by developed country importing or trading companies. Trade in these commodities is therefore likely to have good access to financial instruments, without official assistance. In these countries, any problem of impact is likely to be a distributional one at the country level. For other commodities, the African, Asian and Pacific countries listed here, with some exceptions among the oil producers, are likely to be mainly dependent on official finance. In Latin America and the Caribbean, the picture is different; several middle income countries have significant private capital inflows. For efficient markets in the futures and other derivative schemes to help commodities, countries must be of a minimum size, but it is small countries which are particularly likely to be dependent on a small number of commodities

Natural conditions will determine access to transport, and therefore influence the types of diversification, whether into other commodities or into manufactures or services which are

feasible. While small islands normally have physical access to transport, smallness (and often remote location) can limit the economic access, so that there are few and high cost shipments, limiting both the perishability and the volume of commodity shipments. Many of the countries in the table (especially in Africa) are landlocked, facing physical obstacles to good transport.

In Africa and the Pacific, almost all the commodity dependent countries are least developed or (often and) have another handicap: island or landlocked status. In the Caribbean (by definition) the same is true, but the Latin American countries are neither poor nor geographically handicapped. The Caribbean countries, however, are more dependent on the short-shock commodities, while for the list as a whole the commodities fall in the persistent group.

Historic ties influence both observable links (transport for example) and less obvious ones: familiarity with markets and trading institutions, access to credit, for example. More than half of Africa's current agricultural exports go to Europe, and about half its mining exports (and also half its manufactures). Asia is slightly less dependent on Europe, and Latin America has a more balanced pattern for agricultural products, although its mining products are highly concentrated on North America.

The evidence in this section suggests that the commodities which are most likely to cause concern because they are exported by poor countries or countries heavily dependent on a few commodities are often those for which finding a way of insuring against fluctuations is likely to be most difficult. The poverty and small size of many of the commodity dependent countries also makes any market solution likely to be difficult to secure, while some areas are tied to traditional markets, limiting the potential for diversification. The problem of commodity dependence is becoming increasingly concentrated on the poorest countries, especially Africa, plus other least developed or very small countries, but these are losing their share in markets. In the 1950s and 1960s, when the first proposals for helping commodity producers were made, these included major developing countries in Latin America and a substantial share of world output of commodities. Now, for all regions (except the Middle East) exports of manufactures are more important than commodities. There is a serious risk that the difficulties of what is now a minority of developing countries producing a small share of commodities will not attract international attention and support. In contrast, the Latin American countries offer a less discouraging prospect. They are less dependent on commodities, less poor, larger, and have access to private finance.

Two closely related changes have occurred in the market structure for most commodities. Until the 1980s, many developing countries had marketing boards or other forms of direct intervention in commodity markets. These offered predictable (and usually fairly stable) prices, for both output and many inputs: seeds, fertilisers, technical assistance. These protected producers, if not the countries, from the falling and fluctuating world prices. In parallel, some commodities had international arrangements which tried to extend this protection to countries. The high fiscal costs (and often serious inefficiencies) which these imposed could not be maintained, and the reforms of the 1980s in government finance and trade regimes brought their end. In most cases countries did not replace any of the services which they had provided (UN 2000). Second, the international markets for commodities have become much more concentrated. Perhaps in response to declining profit margins (UNCTAD 1999 TD/B/COM.1/EM.10/2), large trading companies, dealing in many commodities, have replaced smaller and more specialised, while the total share of all trading companies has fallen relative to direct purchases by processors or final sellers. In coffee, five companies now account for half of trade in green coffee, while cocoa trading companies in London have fallen from 30 to 10, and half of trade is now controlled by chocolate manufacturers (UNCTAD 1999 TD/B/COM.1/EM.10/2). Both of these represent 'diversification', and a reduction in risk in the consuming countries, but without lowering the risk to producers. The concentration and the removal of the 'buffer' layer of traders both tend to

weaken producers' market power, although the removal of the middle level may increase the share of the price going to producers. The growing role of integrated companies may also lead to more direct control of what is produced (which technical or quality standards). The interaction of these two trends has meant that some of the services formerly provided by governments, e.g. finance, stockholding, are now provided by foreign companies, decreasing the share of commodity income remaining in the producing country (UNCTAD 1999 TD/B/COM.1/EM.10/2).

But some would argue that there must be more serious (and long-established) problems in the markets for commodities. It is notable that almost no developing country has 'developed', has become rapidly growing and increased its share in world trade, through commodity exports. The Asian and Latin American countries moved into manufactures. (Although some in both regions did diversify their exports of commodities and increase processing of them, this was not the major explanation for their success.) Why do countries find it more difficult to move into processing of commodities they already produce than to start new industries? One reason may be technical conditions: the capital intensity of some processing stages, but electronics factories are also capital intensive. This leads some observers in both the WTO and UNCTAD to suggest that the market conditions in commodities, controlled by a small number of large integrated companies, make this path extremely difficult. For small countries, with no large companies of their own and little experience of competition and contesting markets, it may be impossible. If so, this explains why increasing value added (the 1950s answer to commodity dependence) has rarely been successful. It also suggests that any 'solution' to the problems of commodity dependent countries must be found either outside commodity production or through changing the market structure, through international competition regulation. If the WTO is intended to reduce or eliminate market distortions, then 'Trade Related Competition' measures may be needed, and the elimination of public sector distortions, through marketing boards and commodity agreements, may have made this more urgent, by removing a counterbalance to private sector distortion.

Part Two: Policies to help commodity-dependent countries

5. Reducing dependence on commodities

Reducing dependence on commodities by moving to a different type of export – manufactures, services, or non-traditional commodities – seems the best solution to shelter developing countries from the negative impact of price instability. There is also evidence that commodity dependent countries are among the most slow growing and most susceptible to civil conflict. It may also be the least likely short-term scenario for most commodity dependent countries. A case in point is that of the African, Caribbean and Pacific suppliers of bananas, beef/veal, rum and sugar who have benefited from preferential arrangements with the European Union under the successive Lomé Conventions. These arrangements are arguably the most ambitious attempt to date to foster export *increase* and *diversification* (the two explicit objectives of Lomé trade preferences).

Successful attempts at diversification away from commodities

Countries that have succeeded in diversifying away from commodities into higher value-added, more stable income earners such as manufactured products, are mainly in Asia (e.g. Malaysia, Indonesia) and Latin America (e.g. Brazil, Chile). Diversification did not occur as the result of domestic export-targeted measures or external preferential trading schemes. Instead, the shifting of labour from primary to secondary and tertiary activities stemmed from policies promoting long-term economic transformation and the development of supply capacity, achieved through high saving and investment rates. Public investment in infrastructure and in education, as well as foreign investment, have been key. By opening its economy and reducing anti-export biases, Brazil moved away from cocoa and coffee, whose share dropped from more than 50 per cent in 1968 to 10 per cent in 1982. Asian countries often used a mix of trade liberalisation and trade promotion measures (including subsidies). Diversification occurred faster – a couple of decades – and more radically in relatively labour-abundant rather than commodity-abundant countries (Korea, Taiwan vs. Thailand): the higher the initial endowment in natural resources/commodities, the more difficult it is to move away from them. Size also matters, and for once in favour of smallness, as big countries diversify more slowly than small ones (Indonesia vs. Singapore).

While the experiences of Asian countries provides a clear lesson – that economic diversification is the only solution in the long run – they are less inspiring for Latin American and ACP countries on how to achieve it: *external* initial conditions facing poor, commodity-dependent countries today are not those faced by East Asian countries in the 60s and 70s. World markets nowadays see more countries competing with one another than two decades ago, providing lower returns on outward-oriented strategies. Similarly, selective protectionism may have been easier to implement and potentially more beneficial at a time when multilateral and regional disciplines were less constraining.

Supporting diversification: the case for trade preferences

For the last 25 years, commodity protocols attached to the ACP-EU Lomé Convention have extended duty free access to the European market for fixed quantities of those products from 'traditional' exporting countries of the ACP group (Table 3). For many ACP states, these generated substantial foreign exchange revenue and employment. More generally, Lomé preferences were to boost export diversification by providing tariff exemption for most other ACP exports. On the whole, preferences failed: since Lomé the overall ACP market share in EU

imports fell by more than half (from some 6 per cent to less than 3 per cent), and diversification away from commodities occurred only in a few countries and certain sectors (Dunlop, 1994; ECDPM, 1999). Cases where trade preferences have allowed for some diversification of exports include the following:

- Within slightly more than a decade, *Mauritius* moved away from absolute dependence on a single commodity (sugar), eradicating poverty and cutting unemployment from one third of the active population to a residual few percentage points. Through a mix of active export promotion and protection of local production, it maintained jobs and revenues in its traditional export sector (sugar, subsidised though the Lomé sugar protocol), created new ones in non traditional, labour-intensive exports (clothing, benefiting from MFA exemption under Lomé), and is now developing further exports of services (tourism, but also banking and consultancy services). At first, the manufacturing export sector benefited from foreign investment seeking preferential access to the EU, a stable environment, fiscal incentives and low wages; using sugar revenues to promote diversification, domestic investors progressively took over.

- Making use of EU trade preferences, Zimbabwe (another ACP country), somewhat reduced its dependence on traditional exports (e.g. tobacco) with manufactured exports (textiles, clothing, shoes) almost doubling, from 10 per cent in the mid-eighties to around 20 per cent in the early nineties. Zimbabwe was also successful in seizing market opportunities for non-traditional exports in horticulture (cut flowers) and agro-processing (canned fruit, fruit juice) where Lomé preferential margins were the most significant. Other ACP countries that have achieved some diversification using preferences include Kenya and Jamaica. By contrast, Ghana, which has benefited from the same preferences since 1975, still relies heavily on cocoa and gold (which together account for almost two thirds of export earnings).

- The EU Generalised System of Preferences (GSP) exempting least developed countries from restrictions under the Multi-Fibre Arrangement has helped countries as different in size as *Bangladesh* and *Lesotho* (also a Lomé beneficiary) to attract foreign investment in export-oriented textile and clothing industry. Similarly, *Madagascar's* exports of clothing have grown substantially over the last years, boosted mostly by Mauritian investment seeking lower wages than at home. The same is observed to some extent in the *Caribbean* islands benefiting from US and Canadian preferences (under the Caribbean Basin Initiative and Caribcan respectively).

The above are exceptions rather than the rule. Indeed, overall, the record of preferences is very mixed: 'Lomé preferences are generally perceived to have failed to stimulate and diversify ACP exports to any significant extent. An important perceived reason for this has been the failure of many of the ACP states to liberalise their import regimes, and so reduce the very high levels of discrimination against the export sector'.(Stevens et al., 1998).

Table 3. Lomé commodity protocols: provisions and beneficiaries

	Bananas	**Beef/veal**	**Rum**	**Sugar**
Fixed quantities	X	X	X	X
Duty free	X	Duty reduced	X	X
Guaranteed prices	-	X	-	X
Trade development measures	X	-	X (unimplemented)	-
Geographical coverage	The 12 "traditional" exporters of bananas to the EU: Côte d'Ivoire, Cameroon, St Lucia, Jamaica, St Vincent, Dominica, **Somalia**, Belize, Suriname, Grenada, **Madagascar**, **Cape Verde** (but country quotas removed after 1997 WTO panel ruling)	Botswana, Kenya, **Madagascar**, Namibia, Swaziland, Zimbabwe	All ACP exporters of rum (*de facto* Bahamas, Barbados, Guyana, Jamaica and Trinidad and Tobago)	Mauritius, Fiji, Guyana, Swaziland, Jamaica, Zimbabwe, Barbados, Belize, Trinidad and Tobago, **Malawi**, Côte d'Ivoire, **Zambia**, **Madagascar**, **Tanzania**, St Kitt s& Nevis, Suriname, **Uganda**, Congo, Kenya

Note: Countries in bold are Least Developed (LDCs).
(*) Members of the ACP working group on rum, but exporting only minimal volumes.

Preferences making dependence worse: the case of commodity protocols

For protocol beneficiaries in particular, protocols have arguably caused a high degree of export dependence and have not stimulated economic diversification or tackled supply side bottlenecks in the ACP. For many countries, as Table 4 shows, the benefits of the ACP-EU commercial relationship are highly concentrated in the export of certain products to the EU under the protocols. Although the indicator used is the percentage of total export earnings from the EU, in some cases the dependence is so acute as to be critical to the economic prosperity of the ACP country concerned. Exporters of bananas in the Windward Islands of the Caribbean are particularly vulnerable in this respect. In the case of sugar, Stevens *et al.* (1998, p. 39) write that 'were the CAP to be reformed totally, the sugar industry in most of the Caribbean states would almost certainly collapse as they could not compete on a free market.' As for Mauritius – in many respects the ACP success story – the share of sugar in total exports may have declined sharply over the last decades, with that of manufactures booming, but it remains significant (around 30 per cent).

Table 4. Dependence of ACP beneficiary countries on exports of protocol products

% of total export earnings from the EU	Sugar	Beef	Bananas	Rum
More than 70%	Fiji (84) St Kitts & Nevis (72) Swaziland (67)		St Lucia (88) Dominica (73)	
50-70%	Guyana (63)			
30 - 50%	Barbados (48) Mauritius (30)	Botswana (32)	**Somalia** (43) St Vincent (41)	Bahamas (37) Trinidad & Tobago (30)
10 - 30%	Belize (28) Jamaica (15) **Malawi** (13)	Namibia (10)	Belize (25) Jamaica (10)	
1 - 10%	Trinidad & Tobago (5) **Tanzania** (5) Zimbabwe (5) Congo-Brazzaville (3) **Madagascar** (1)	Zimbabwe (4)	Suriname (9) Cameroon (5) Côte d'Ivoire (4)	Barbados (7) Guyana (2) Jamaica (2) Dominican Republic (1)
Other signatories	**Uganda**, **Zambia**, Kenya, Suriname, Côte d'Ivoire	Kenya, **Madagascar**, **Tanzania**	**Cape Verde**, **Madagascar**, Grenada	(**Madagascar**), (Fiji), (Mauritius)1

Source: 1998 Eurostat statistics. Percentage figures for each country are in brackets. Countries in bold are Least Developed (LDCs)

Moreover, many ACP sugar, banana and rum industries are located in small island developing countries, which may complicate the diversification process in a number of ways (e.g. limited internal market, climate changes, vulnerability to natural disasters). Fiji, for example, has been exploring possibilities for diversification but, 'because of soil conditions, climate and vulnerability to natural disasters, no other crops have been identified which could replace cane sugar production in the short or medium term. The resilience of the sugar cane crop after suffering from natural disasters is also a tremendous advantage over other agricultural commodities' (Communication from Fiji to the WTO, 1999).

Most interestingly, Lomé commodity protocols have had specific provisions for supporting diversification into non-commodity sectors, through financial and technical assistance to beneficiary countries. These have been seldom implemented, if at all. It should also be noted that incentives on the donors' side to promote diversification have been weak. EU governments have enjoyed sustained political influence in ex-colonies partly through these arrangements. European operators in these sectors have also been indirectly benefiting from commodity protocols: the present arrangements for sugar, for example, make refiners of cane sugar in the EU largely dependent on ACP sugar for their supplies, and the banana regime has been benefiting EU marketing companies and shipping lines.

On the whole, as long as 'negative' incentives exist, that hinder diversification by making commodity-dependence profitable, diversification does not happen. Economists have argued that diversification away from a specific commodity would have been best obtained by gradually introducing some form of tax on exports of that commodity, which would progressively annihilate the distortions introduced by special arrangements. The income generated could have been used to foster investment in other sectors. A key obstacle is the opposition of lobbies who benefit from rents created by these protocols.

The lessons to be drawn may be the following:

- Diversification is the only path for breaking away permanently from commodity price

[1] There are no 'signatories' to the rum protocol. Any ACP exporter of rum can be party to its provisions.

volatility. It occurs within the process of structural transformation of an economy, rather than through specific policy or instruments, and is therefore a long term solution for the large majority of commodity dependent countries. This implies that the often excessive focus of national development strategies on agriculture should be deliberately shifted towards industrialisation (processing of agriculture and other natural resources, manufacturing) and services (tourism, data processing, etc.).

- Trade preferences have helped diversification where policy favoured structural change and investment (Mauritius, to a lesser extent Zimbabwe), but they are neither necessary nor sufficient to promote diversification, as long as supply side constraints hold. In any case, the scope for preferences has been shrinking considerably, notably because of the progress in trade liberalisation in multilateral and other fora. In terms of trade policy measures by developed countries, liberalisation on an MFN basis of sectors where developing countries have a comparative advantage – and where concessions have been limited, such as agriculture and textiles and clothing – is the safest way (in terms of predictability) of encouraging the diversification process.

- Preferences and special arrangements guaranteeing fixed prices or quantities of exports in specific commodities may even be counter-effective, and actually worsen dependence. Lomé protocols may have, in several cases, enabled ACP countries to maintain their position in the EU market, but by providing artificially high prices to ACP suppliers, they have also acted as a powerful disincentive to increase their competitiveness or to diversify their export structure.

6. Diversification among commodities

If moving into manufactures or services is difficult for a small country, or one with poor market access or unskilled labour, moving into another commodity may be a more practical way for it to reduce the risk of price fluctuations, if there is not a close correlation between the prices of its existing and new exports. This solution has some clear disadvantages: with only a few possible exceptions, the prices of all commodities appear to be in decline, so the most serious problem of commodity dependence, declining terms of trade will remain. And to reduce exposure to risk, countries probably need to diversify into 5-6 commodities, which may mean finding 3-4 additional exports. As well as any natural constraints on what can be produced, for a small country this may imply quantities which are too small for efficient production, transport, or marketing.

An additional argument against this has been that many or all commodity prices tend to move together, so that diversification does not remove risk. For some groups of commodities, it is clear that prices do move together, most often because they are substitutes in use or consumption: the edible oils, to some extent the tropical beverages (although this seems to be breaking down), meats, woods and some fibres. But the question is whether commodities which are not related in the normal economic sense move together, and here some recent studies have attempted to show that the relationship is not close (Cashin, McDermott, Scott 1999). They have found that while comparisons of prices find correlations (because there are some large movements in the same direction, notably those at the time of the oil crises when most prices fell), if the number of occasions or length of periods when two commodities' prices were both rising or both falling is considered, there is not normally any significant 'co-movement' between unrelated commodities (although one relationship, the result of financial substitution, was found: between gold and oil in periods of inflation). Using the same test for related commodities, they did find co-movement, as would be expected. While large movements in world demand (such as the recent recession or the 1974 boom) can affect all commodities, other shocks come from supply conditions, which are confined to one or a few commodities or countries.

What does this imply for developing countries considering whether to diversify into another commodity rather than into manufactures or services (or instead of increasing output of the existing exports)? It confirms that to have a significant risk-reducing effect, the new commodity should be unrelated. For such a commodity, there will still be some common movements, in the face of major world changes in demand, for example, but it is likely that these will also affect manufactures and services (the fall in manufactures prices in 1997-9, for example): there is no complete protection against falling prices in such circumstances. The encouraging evidence on co-movement does not, however, remove the disadvantages of falling prices or larger fluctuations: the fall in manufactures prices was less than that of most commodities.

Countries choosing a new commodity must therefore try to find one which is unrelated to their current exports and should also look for one which is in the short-duration set of commodities. But this may be difficult, particularly for a small (and climatically uniform) country. Both the short shock condition and the difficulty of introducing new mineral commodities (unless new technologies change the range of exploitation) suggest that most new commodities will have to be agricultural. Unless the natural conditions are sufficiently varied that a country can (for example) produce some goods which would be at risk from drought and others from excessive rain, it is unlikely to be able to escape vulnerability to correlated risks. The need to find efficient transport and marketing procedures for the new commodities in contrast, suggests that commodities which are similar to the old will have a better chance of success, the reverse of avoiding co-movement. Finally, for many agricultural goods, as discussed above, there are market-distorting regulations and restrictions so that a country needs to consider policy constraints as well

as production conditions.

Diversification to other commodities was a solution which was strongly advocated in the 1980s, when the example of the Asian countries which had introduced crops previously produced in Africa was cited. In these cases what appears to have happened, however, is that the crops were tried in their new location for the first time, were found to be suitable, and by having lower costs the new producers were able to increase output faster than the growth of demand by taking share from old producers. The new producers (UNCTAD cites Malaysia which diversified into palm oil and cocoa; Colombia into flowers, and Kenya and Sri Lanka into horticultural products 1997, TD/B/COM.1/12) were not using the new commodities primarily as a way of reducing single commodity dependence: they were large, already relatively diversified economies. For Malaysia food has fallen from 13% to 9% of its exports since 1970, agricultural raw materials have fallen from 50% to 5% and three quarters of its exports are manufactures. For Sri Lanka, three quarters of its exports were food in 1970, but by 1996, three quarters were manufactures. Colombia depends principally on oil and manufactures (about a third each). Only Kenya is still manily dependent on primary exports, but within this fruit and vegetables are only 5% of total exports. Commodity fluctuations were not, therefore, a serious problem for three of these economies, and the new sector is too small to offset coffee and tea fluctuations in Kenya. Some commodities where such a policy has succeeded appear to be those whose demand conditions are more like those for manufactures (a high income elasticity, at least in the short run, and gains for early suppliers): horticulture, for example.

For a few countries, there have been moves into fish, shrimp, and other aquatic products. Among the least developed countries, these are now one of the three most important exports for Bangladesh, Cape Verde, Guinea Bissau, Madagascar, Maldives, Mozambique, Myanmar, Sierra Leone, Solomon Islands, Uganda and Yemen as well as Kiribati and Vanuatu, where they are traditional principal exports (WTO, 1997). These probably have less correlation of climatic shocks with land production than another agricultural product would have and are likely to have short shock periods. Their disadvantage (which was also observed for the 1980s diversifications) is the number of countries simultaneously identifying them as the new and promising export (prawns and pineapple became notorious examples in the 1980s, Page, 1990). Even if demand is currently growing, not stagnant as it is for traditional commodities, rapid growth of supply will reduce the period in which demand grows more than supply.

A different form of 'diversification' is into processing of an existing commodity. This was seen as the easiest form of industrialisation in the 1950s and 1960s, before the Asian NICs demonstrated the very different model, of labour-based industrialisation, and still has advocates in UNCTAD and the WTO. The market-structure arguments against this strategy were discussed above; this has not been the central strategy of successful countries. Developing countries wishing to upgrade their production to improve value added and labour incomes have looked first for processes which are not much more technically demanding or capital intensive than primary production and at least as labour intensive. This normally means such manufactures as clothing, footwear, and simple electric or electronic operations or services, such as tourism or shipping. Most of these have no direct relationship to primary commodity production (the second stages of cloth and metal production are much more capital intensive than the primary or final stages). Malaysia continues to encourage processing of palm oil and rubber, but its principal exports are electrical and electronic manufactures. An additional difficulty is that for some commodities processing would require first creating or identifying a processed product (for example, a new presentation), because the attraction of the commodity is freshness (fish or bananas, for example), and of course for many the commodity is an input into a process where other inputs are more difficult to transport or where production needs to be near the market (the traditional barrier for cocoa).

Chapter 7: National and international stocks

Reserve-holding has a cost; keeping physical stocks plus the administrative costs of the buffer-stock manager and board. In addition to transaction costs, there may also be problems of corruption and legality. Furthermore, when stocks have to be liquidated, as is occurring currently with natural rubber, only very careful strategy will avoid a further undermining of the commodity price.

Advances in both technology and financial instruments raise the question as to whether virtual stock-holding is not a better option, especially given the existence of futures and options markets already associated with physical commodity markets (see chapter 8 on derivatives). The United States abandoned classic buffer stocks as part of its farm policy in 1929 and ended commodity storage programmes in 1991 (Gardner, 2000). Nowadays, it is easier for developed countries to regulate acreage, and pay for set-aside, than to stock physical volumes. This avoids the eventual return of surplus produce to the market, which itself (or the threat of which) tends to be the leading cause of commodity price collapses.

Developing countries have, however, traditionally found themselves in a different position. Often producing a narrow range of primary commodities on which they depend for foreign exchange and government revenues and enjoying only limited shipping outlets for sale onto international markets, they have relied on national stockpiles to regulate and manage the supply of the commodity for export. These were until recently run by state-owned concerns, which served the additional purpose of collecting output from small and large producers across the country, notably in the case of tree crops/tropical beverages such as West African cocoa and coffee. The national stockpile was therefore part of a much larger stabilisation board, which was able also to regulate the price offered to producers. It was partly because of the dominance of (state-run) national stocking schemes that international momentum built up behind primary product producers in the 1970s for an international Integrated Programme for Commodities (IPC) which had managed buffer stocks as its key element. UNCTAD took the lead in promoting the IPC.

This was also the period of brief commodity power (1973-79) putting control of supply in the hands of developing country exporters. Collective action was taken first over phosphates and then, in 1973-74, on crude petroleum. This worked in the case of these particular commodities. Stocking costs regained for non-perishable, standard products were relatively modest. They were supplied by developing countries and faced strong international demand, concentrated in the rich countries. These, even if producers, were no longer net exporters. It also worked because the commodities themselves were not easily or cheaply substitutable. The formation of supplier cartels or quasi-cartels appeared to show that concerted producer supply-regulation could raise international prices, perhaps permanently.

International Commodity Agreements, in contrast, had to incorporate the interests of both consumers and producers. Those that were negotiated or renegotiated under the auspices of UNCTAD in the 1970s, were ostensibly designed *to protect both producers and consumers against unexpected price fluctuations*. Yet the later IPC, comprising the then ten core commodities of interest to the developing world, had as an explicit objective to raise the price of commodities, albeit in a stable manner. The EC and its member states, having an interest in the stable supply of commodities in uncertain times, went along with this Faustian pact pledging both to stabilise and to raise price, implicitly recognising that developing country commodity producers deserved to enjoy higher price levels.

The agreements were all intergovernmental agreements (and recognised as such by GATT: measures taken in compliance with a commodity agreement are explicitly allowed as legitimate exceptions to normal MFN treatment in Article XX). The Agreement establishing the Common Fund for

Commodities was concluded and signed in 1980. The EC was (and the EU is) a member, as were its member states, although France withdrew in 2000. The United States has never joined. However, it took a decade for the Common Fund to come into being (1989), by which time the world had changed. National, as well as international, markets have been liberalised (in developing countries often under the pressure of international creditors). International trade has risen much faster than physical output, and the state has given way to the private sector in many, if not most, productive sectors of developed, developing and, of course, transitional economies.

Nowadays, not only do the (now twelve) core commodity agreements in the Common Fund no longer maintain physical buffer stocks, all have now abandoned explicit price stabilisation measures, leaving this to the operation of the markets. Many of them have reduced their activities to mere 'study groups', some with new purposes such as providing data and research and promoting sustainability. The new study groups increasingly have private participants as observers, including producers, customers, and financing agents. The benefit for the private sector is that it gives them access to information, from producers but also among purchasers (in a forum which is exempt from anti-trust action). The risk for producers is that it provides an additional forum within which purchasers can combine to put pressure on the nature and quantities of production. And the big traders such as Cargill are now moving closer to the source suppliers.)

The past and current situation of the main international commodity agreements is as follows:

Cocoa
The ICCO (no longer a 'control' organisation and no longer with price stabilisation measures) manages the International Cocoa Agreement. Buffer stock operations ended in 1988. The 1993 Agreement will be renegotiated in December 2000 in Geneva and is expected to include 'sustainablity' as a goal. The EU is a member. The political fragility of Ivory Coast, the leading ACP and world exporter, is a current matter of concern.

Coffee
The 1970 ICA (administered by the ICO, also based in London like the ICCO) regulated exports and imports within price bands and introduced quotas in 1980, but the economic clause in the agreement was abandoned in 1989. The new agreement (2000) contains clauses on sustainable environment and labour conditions but no price measures, and could be in operation for up to sixteen years.

Sugar
The ISA of 1977 used nationally-held internationally-controlled stocks to stabilise prices; the EC was, and the EU is, a member. However, from 1985 there were only administrative agreements and the 1992 ISA has no price stabilisation measures.

Rubber
The International Natural Rubber Agreement (for natural rubber) and the International Rubber Study Group (for natural and synthetics) existed in parallel. INRA influenced prices in the 1970s and 1980s through its buffer stock and this was revived in 1997. However, two of its leading members, Malaysia and Thailand, withdrew in 1999, expelling the secretariat from Malaysia. It was liquidated and the remaining buffer stock of 138,000 tons is now being sold. The study group will become the core organisation.

Wheat and Coarse Grains
The International Grains Agreement was formerly the International Wheat Council, which used surplus disposal (food aid) as a key instrument of managing supply. Nowadays, the International Grains Council's market information committee keeps global grain supply and demand under

review; food aid is now increasingly used for relief rather than as market regulation.

Jute
The 1989 agreement on Jute and Jute Products was formally ended and replaced by a Study Group. It is now focused on research and development, the structure of demand and on marketing jute's environmental benefits; it has no economic clause or price stabilisation measures. It now has private sector observers.

Tropical Timber
Similarly, the ITTO has shifted policy towards sustainability in the face of changes in consumer preference. Tropical timber is one of the few commodities to enjoy a price boom in the past decade; this has occurred without international stockpiling or direct market intervention. More clearly than perennial crops and even some minerals, it is now seen as a rapidly depleting resource. This and the fact that Japan, a member and host of the headquarters, continues to support it gives it a stronger position than other agreements. Because it is a recognised commodity agreement, measures taken under it to restrain trade for environmental purposes could claim exemption from WTO constraints.

In addition, the following have already become essentially study groups rather than international commodity agreements; **copper**, **cotton**, **lead-zinc**, **nickel**, **olive oil** and (despite a powerful buffer stock in the 1970s and 190s), **tin**. Many of the developed country members of the Common Fund see this path as the future for the ICAs listed above too.

These histories illustrate the difficulties in scaling-up from national stocking schemes (which can hardly influence world prices) to internationally-managed schemes, which could influence prices, but require efficient management. Without the assent of the consuming developed country members, internationally-ordained supply management using stocks and reserves cannot occur. That the US has never supported (or joined) the Common Fund, and that many EU members states are keen on further reducing the scope of its operations weakens their prospects.

The Common Fund itself, although still declaring its primary function to be:

> 'To contribute, through its First Account, to the financing of international buffer stocks and internationally coordinated national stocks, all within the framework of International Agreements or Arrangements' (1999 Audited Financial Statement of the CFC, p 3.)

only operates a Second Account, to undertake projects in developing countries, usually as cofinancing with FAO or IFAD. These have to be proposed by one of the 24 recognised international commodity bodies; but they are specifically to be concerned with matters in the field of commodities 'other than stocking'. These can include quality standards or research on disease resistance. Without any buffer stock financing activity, some donors have transferred their first-account holdings into second-account funds, enabling more commodity projects to take place but reducing the Fund's capital.

The Fund's activity as a financial organisation is now limited to financing (or cofinancing) projects in developing countries. Under its 1998 Five Year Action Plan, it has opted to focus on the Least-Developed Countries and on target beneficiaries (smallholders and small and medium-sized enterprises). In practice, 45% of its expenditure is in Africa (with an estimated 50-55% in ACP countries). Its unique focus is that it concentrates on the commodity, not the country, as do other donors. This, however, makes some of its multi-country/regional assistance projects unwieldy given its modest size; cofinancing tends to proceed at the speed of the slowest partner.

Hamstrung on commodity policy matters by the fact of its primary function being declared a dead letter in the decade (1980-1989) between the Common Fund's conception and its physical birth, it has not taken the lead in devising or introducing new financial instruments to manage commodities. However, it is a member of the International Task Force in Commodity Risk Management and is currently trialling a three-year price risk management scheme involving put options proposed by the ICCO for cocoa farmers in Cameroon, Ivory Coast and Nigeria.

Stockholding manipulation is not completely defunct. In September/October 2000, a rise in tension in the Middle East led the US to release stocks from its *strategic* oil reserve in an attempt to mitigate world price rises, although this was largely an *economic* objective. Similarly in diamonds, the monopoly producer, De Beers, has traditionally maintained a large stockpile and acted as supplier of last resort in order to keep prices high, although it now claims to be moving more toward demand management: it faces antitrust action in the United States. Similar arrangements to manage the gold market have not prevented price falls over the past decade. Gold, diamonds and petroleum, however, are not commodities included in the Common Fund or under the IPC. The vacuum caused by the disbanding or emasculation of the traditional (state-run) commodity boards or stabilisation funds formerly managing stocks has created gaps in commodity market knowledge. The remaining agreements are making stronger efforts at market intelligence and (on projects) with capacity-building schemes. The clock cannot be turned back but it must be recognised that market liberalisation has had some victims on the producer side and in developing countries. The end of price intervention and implicit decision that markets are deemed to be a more efficient mechanism for establishing prices. This, however, puts more power in the hands of the market leaders, including the trading companies, at the expense of marginal producers or the poor as producers and consumers.

Chapter 8: Commodity derivative instruments

Commodity derivative instruments such as futures, options, swaps and commodity-linked notes are intended to make revenues more predictable. Increased price uncertainty and the breakdown of international commodity agreements have increased interest in these instruments. But unlike commodity agreements or compensatory financing they do not provide external support to stabilise national income. Derivative instruments are used to reallocate risk between private traders, in the country or in external markets, and producers, rather than transferring the risk to a government.

These instruments can be classified into two forms:

1. Contracts where the principal or interest payments, or both, are indexed on a commodity price. These include futures, forwards, swaps, long-term contracts, and commodity indexed bonds.
2. Contracts that give the holder the right – but not the obligation – to buy or sell a commodity at a particular price. These include call and put options, warrants, and swaptions.

Both features are often combined in one instrument. Table 5 gives an overview of financial instruments to manage risk

Derivatives provide some price stability but usually for very short periods. For example, a mining company can use a swap to lock in the price for its copper exports for a period up to three years or farmers can be assured of a minimum price for their crop within a given year. For agricultural commodities, coverage is generally restricted to a few months but in the case of metals and energy certain transaction can be extended up to a few years. They cannot maintain a price higher (for sellers) or lower (for buyers) than market prices. They are designed to reduce uncertainty in revenues, not to eliminate falls or sudden spikes. They can be used in combination with traditional financial tools to enhance financing. Varangis and Larson (1996) consider this important for recently liberalised commodity sub-sectors, where the quick establishment of credit flows is crucial to the success of reform. For example an exporter and a buyer may agree on a fixed price for a certain volume of a commodity. The buyer then provides a line of credit to the exporter, which is drawn down as exports are made. The buyer can, in turn, hedge the price risk on the option market or sell the commodity for future delivery. Or the repayment of a loan to a copper producer can be linked to copper prices; if prices fall (increase) the producer pays less (more) interest. They, therefore have, have a useful role to play in helping governments and the private sector to adjust to new trends in commodity prices.

Experience shows that credit risk, which can be a problem for developing countries, is less of a constraint for shorter-dated instruments because these often require margin accounts and sometimes collateral, but the cost can be a problem. Credit risk is a more serious problem for longer-dated instruments. The use of risk management instruments will reduce the risk of interruption in payments by reducing the price risk, but it cannot completely eliminate credit risk; other measures may be necessary.

Table 5. An overview of financial instruments to manage risk

Instruments	Description	Advantages and Limitations
10 Financial instruments in general	*11* Financial instruments in general	
Forward	• An agreement to purchase or sell a given asset at a future date at a preset price. • Transactions are made mostly through brokers by phone and telex. • A typical use is for locking in a future price • Contracts are available primarily for short-term maturities (up to one year).	• No cash transfer is needed at the beginning. Cash transfer occurs only at maturity • Credit risk is involved. • Tailor made contracts are available for specific hedging needs.
Futures	• An agreement to purchase or sell a given asset at a future date at a preset time • Transactions are made in formal exchanges through clearinghouse systems. • Contract terms (amounts, grades, delivery dates, and so on) are highly standardized. • Profit and losses are settled daily, requiring daily cash flow. • Margin (collateral) money is required at the beginning. • A typical use is for locking in a future price. • Contracts are available primarily for short-term maturities (up to one year).	• Initial cash transfer is required for margin money. • Daily cash transfers are necessary. • Credit risk is minimal • Tailor-made contracts are not available. • Markets are more active than forward markets for some contracts. • An original position can be closed or reversed easily and quickly.
Option	• The right to purchase or sell a certain asset at a preset price on (or before) a specified date. • Transactions are made both through brokers by phone and telex and in formal exchanges. • A typical use is for setting a ceiling or floor for prices • Contracts are available primarily for short-term maturities (up to one year).	• A buyer of an option contract can limit the maximum loss but keep open the opportunity to take advantage of favourable price movements. • A buyer has to pay a premium (cost of option) up front. • A buyer faces a seller's credit risk. (A buyer has the right: seller has the obligation). • Tailor-made contracts are available for specific hedging needs.

Instruments	Description	Advantages and limitations
Swap	• An agreement to exchange specified cash flows at fixed intervals. • A series of forward contracts lined up on a schedule. • Transactions are made through brokers by phone and telex. • A typical use is for locking in future prices for a long period. • Contracts are available for medium and long-term maturities (one to ten years).	• No cash transfer is needed at the beginning. • Credit risk is involved. • Tailor-made contracts are available for specific hedging needs.
	Commodity -linked instruments	
Commodity Swap	• A swap contract on a certain commodity. An agreement to pay, at fixed intervals, a fixed amount of cash in exchange for a variable amount of cash or vice versa. The variable amount of cash is determined by the market price for a set quantity of a commodity. • Contracts are provided by international banks. • A typical use is for locking in a price of a commodity for the medium term and long term.	• No deliveries of physical commodities are involved. Transactions are purely financial. like the other swap contracts (see above for characteristics of swap contracts in general). • The markets are not very active.
Commodity linked loan	• A loan in which interest or repayment amount or both are linked to the market price of a certain commodity. • A loan can be viewed as a combination of a conventional fixed rate loan and a commodity swap contract. • These loans are provided by international banks.	• A loan can be regarded as effectively denominated in a commodity. • If used by a commodity producer, the credit risk of the loan is lower than that of a conventional loan. A producer can repay the loan even if the price of the commodity falls significantly.
Commodity-linked bond	• (Forward type) A bond in which coupons or principal or both are linked to the market price of a certain commodity. • (Option type) A bond to which the right to buy or sell as certain commodity at a preset price is attached. • There bonds are underwritten by international banks. • The bonds have been issued primarily on gold and oil. Some are available for silver, copper and nickel.	• (Forward type) Advantages and limitations are similar to those of commodity linked loans. • (Option type) This type is often useful for commodity producers, to reduce the cost of financing.

Source: Toshiya Masuoka, Asset and Liability Management: Modern Financial Techniques in : Managing Commodity Price Risk in Developing Countries. Ed. Stijn Claessens and Ronald C. Duncan, The World Bank, (1993), p. 99-101.

The London Metal Exchange is one of the largest forward markets for commodities; aluminium, copper, lead, nickel and zinc are traded on three month maturities. Future contracts are available for gold, silver, platinum, aluminium, copper, lead, nickel, heating oil, propane, gasoline, and crude oil. Among agricultural commodities, they are available for cocoa, coffee, maize, cotton, soya and palm oil, orange juice, sugar, wheat. Options on physical commodities and options on commodity futures are available only for short-term maturities. The most actively traded contracts are those for gold, silver, and oil. Long-term options are traded over the counter primarily on gold, silver, and oil, but the markets are not very active. Commodity swap contracts are a recent development which started off with a thin market but is growing. Swaps are available for gold, silver, and crude oil; copper, aluminium, nickel, zinc, and jet fuel are available, but the markets are thinner. Commodity linked loans are known for copper and commodity bonds have been issued primarily on gold and oil, although some have been issued for silver, copper and nickel.

Other major exchanges include the Chicago Board of Trade, New York Mercantile Exchange, Tokyo Commodity Exchange, London Commodity Exchange, Commodity Exchange, Inc., Mew York, the Tokyo Grain Exchange, the International Petroleum Exchange, and the Coffee Sugar and Cocoa Exchange (UNCTAD 1997, UNCTAD/ITCD/COM/7).

Some barriers to the use of derivatives affect all users; some are particular to developing countries. The general ones include:

- The *cost* (particularly to small producers or occasional users) of becoming familiar with a new instrument (few US farmers participate in such markets, for example).
- *Premium and cash flows*. The use of futures requires the deposit of margins, and the purchase of options requires the payment of a premium. Other derivative instruments also require the use of capital for purchasing that instrument or for using collateral to cover performance risk.
- *Basis risk and liquidity*, the imperfect correlation between spot prices and future prices for a commodity. Maturity mismatches and differences in the commodity to be hedged and the hedging instrument can give rise to basis risk.
- *Know-how and awareness* are basic pre-requisites for hedging. It also requires attention from users of these instruments and personnel, to follow the positions in commodity markets as well as a system of controls to avoid abuses. Knowledge and awareness are necessary both for the user and policy maker, board of directors etc.
- *Incomplete financial markets* in terms of coverage of commodities and grades of commodities and in terms of hedging horizons.

Barriers to the use of these instruments found particularly in developing countries include:

- *Regulatory and institutional barriers to the securitisation of commodity shocks*. Some countries control international transactions in both commodities and currencies that prohibit the purchase and sale of commodity derivative instruments. Exchange controls prevent users from having access to foreign exchange to settle initial and variation margins for the use of future contracts or from paying premiums (and margins if necessary) for options. Other countries have laws which prohibit the access to international futures markets. Until early 1990, Colombia prohibited the use of external risk management instruments. A change in legal framework was required to allow the private sector to hedge risk internationally. Until a recent change in legal framework for both commodities and currencies, India prohibited futures and forward training for major commodities and all use of options (UNCTAD 1997, UNCTAD/ITCD/COM/7).
- *Policy barriers and government intervention*. Government policies can distort commodity markets and crowd out private sector incentives to manage price risk.

- *Creditworthiness problems* pose problems for the use of long dated instruments. Some solutions can be tried out by using tangible securities such as offshore escrow accounts. Sharing clauses and negative pledge causes in loan agreements may restrict the use of such facilities.
- *Access.* Individual producers will not be able to access international financial markets. Banks, farmer associations and exporter groups must organise to play this role. Global economic institutions could play a very important role in educating producers, consumers, and government intermediaries.

The private sector benefits from derivative markets by protecting profits and securing financing. The government benefits because the use of these instruments after liberalisation of agricultural markets has shifted the burden, wholly or partially, from the government to the private sector. Price uncertainty is passed on to local private traders, processors and producers who then use these instruments to protect against it. Traders have the option of using different combinations of derivative instruments. Farmers will usually have to use an intermediary, except large commercial farms. There are several possible intermediaries. As in developed countries, these include farmers' co-operatives, private traders/processors/exporters, domestic banks and government entities (or, at international level, the World Bank proposal discussed in chapter 9).

As a result of the increasing popularity of derivatives, several developing and transition economies have expressed interest in setting up their own commodity exchanges in order to provide local users with better access to contract exchanges, to ensure that contract specifications are appropriate for locally traded commodities, to introduce new contracts of local interest, and to remove the exchange risk of using foreign exchanges. Domestic commodity futures and options exchanges can help to improve the price discovery process and help in obtaining meaningful forward prices, lowering basis risk. These benefits have to be weighed against those of using existing exchanges with well established rules and regulations, which have the confidence of their customers and liquidity: users can easily find a buyer and seller. The major risk of using existing international futures markets are basis risk and exchange rate risk, but reduced transaction costs because of liquidity can outweigh these. Countries which have relatively stable currencies will find it advantageous to take advantage of existing futures markets.

Several pre-conditions have to be fulfilled for establishing new futures and option exchanges in developing countries and transition economies, and many developing countries lack one or more. The first is a well-established cash (spot) market. Appropriate infrastructure is required. This means an adequate level of facilities in communications, transportation and information processing and a developed financial sector. In spite of wide-ranging reforms in many developing countries, commercial and financial sectors are still under-developed, so they lack an appropriate legal and regulatory framework. Markets require sufficient capital to form a viable clearinghouse and forestall the counterparty risk. The local business community must support the exchange. Countries must remove any restrictions on the commodities likely to be traded in a futures market and government controls on trading in futures/options or on the free flow of funds. Some developing countries have established exchanges with international coverage, including Brazil, Singapore and Malaysia. Countries with mainly local exchanges include Argentina, China, Hong Kong, India and the Philippines (UNCTAD 1997, UNCTAD/ITCD/COM/7).

The normal economic conditions apply:

- Commodity and futures prices must be closely correlated.
- The underlying commodity must be standardised in terms of size, grade, quality, place of delivery and month of maturity so that contracts are fungible and homogeneous. A grading system for agricultural commodities allow a wide variety of commodities to be included in

the contract by applying necessary discounts and premia to the representative price (Varangis, Larson, 1996).

Practical experience with these instruments shows that they can complement other stabilisation schemes, especially where well designed and well functioning schemes already exist. Hughes-Hallet and Ramanujam (1990) point out that instruments for managing commodity risk hedge only hedge against price risk, therefore leaving quantity risk uncovered; buffer stocks hedge against revenue risk. Whether commodity risk management instruments or buffer stocks are the most effective stabiliser depends on the nature of shocks. They conclude that that price hedging is the most effective way of stabilising revenue for high value commodities and buffer-stocks for low value commodities, largely because of the financial costs involved with buffer stocks

Commodity risk management needs to fit into a country's overall strategy for managing external risk and liability, including management of exchange rate and interest rates. In some countries, financing can be linked to the price of a commodity and financial instruments can serve a financing and hedging function. They have the advantage of relying on market determined prices and shifting risk away from the government to entities better able to manage and willing to assume risks. In most cases they cost less than government price intervention programs.

Although these instruments are increasing in popularity and demand because of the withdrawal of official schemes, the present share of developing countries is very small. Less than 2 percent of the volume of futures and option instruments can be attributed to developing countries at present and only about 5 percent of the open interest in oil contracts (Chote, 1999). Future growth in the use of these instruments so that the burden of risk can be shifted from the government to the private sector will depend upon:

- Regulation reform: assistance could help governments in developing countries to develop regulatory frameworks and support local 'transmission mechanisms' that would allow small producers to aggregate and take advantage of private sector risk management instruments.
- Identification of appropriate intermediaries. This could be accompanied by offering training and local capacity building to intermediaries and to government officials.
- Assistance in developing the communications, transportation, information, and financial structure.

Chapter 9: Insurance schemes

These are designed to provide financial assistance for the adjustment to a price rather than provide a tool (like futures) for ex-ante price risk management. They can play a role in developing economies which do not have the required structure for market-based instruments. As well as insurance, official schemes can offer some of the services formerly available from marketing boards including disseminating price and market information and training and local capacity building.

In a well functioning market with large participants, the private sector could do this, but in such a market the anticipatory instruments would be feasible, and usually more suitable. An official intermediary could help match potential purchases of price insurance with potential suppliers and help small producers to use it by aggregating. It could improve supply by providing a sovereign risk guarantee to providers who in normal course do not provide insurance because of country-specific risks, capital controls, war etc. The intermediary could provide price insurance itself where the private sector is unwilling or unable to do so. Forms include price floors (for producers and exporters) and price ceilings (for consumers and importers).

The World Bank in 1999 proposed an international insurance scheme. The HIPC countries currently receiving debt relief are among the worst affected by fluctuations in commodities. Severe swings in commodity revenues inhibit the country's ability to adhere to debt sustainability targets, and so to access the constrained debt relief on offer.

Its proposal is to put in place, and facilitate access to, a financial mechanism – market-based commodity price insurance comprising price floor guarantees for producers/exporters as well as price ceiling guarantees for consumers/importers – which is simple, cheap and user-friendly. The basic proposal is for a self-financing scheme. The international intermediary would bridge the gap between private providers of insurance and entities in developing countries (producer associations or cooperatives, traders, banks, state corporations). The intermediary could also have a technical assistance and capacity building function; it could leverage existing international support and partially guarantee transactions; it might even have to offer price insurance itself. Variants in the proposal range from exclusive focus on small scale producers (i.e. poor farmers) or a limitation to soft commodities to inclusion of minerals, metals and petroleum in the range of commodities covered, including ultimately insurance against fluctuations in government budget revenues. In 2000, the Bank set up a board with representatives of relevant institutions (Table 6) and began pilot studies. Most are at the export-crop/small farmer end of the spectrum, though it is also recognised that these may be the most difficult to reach, even with new financial instruments, given that many existing intermediary institutions and even extension services were disbanded in the 1980s and 1990s.

A more radical proposal would subsidise the 'insurance premium' for certain commodity dependent poor countries (or to needy entities within those countries which otherwise could not pay the full cost of insurance). For this a concessionary 'second window' would need to be established and funded out of aid resources.

Table 6. Members of the International Task Force (ITF)

Bob Thompson, Director of the Secretariat, The World Bank, Washington, D.C.

Adelrahim, Mohammed (African, Caribbean and Pacific Group of States, Brussels)
Blum, Francis (Louis Dreyfus Negoce S.A., Paris)
Boehnke, Rolf W. (Common Fund for Commodities)
Burghardt, Galen (Carr Futures, Inc., Chicago)
Drabek, Zdenek (World Trade Organization, Geneva)
Easter, Christopher (Commonwealth Secretariat, London)
Fedder, Marcus (European Bank for Reconstruction and Development, London)
Gürer, Nadir (Organization of the Petroleum Exporting Countries, OPEC, Vienna)
Gürkan, Ali Arslan (Food and Agriculture Organization, FAO, Rome)
Hausmann, Ricardo (Inter-American Development Bank, Washington, D.C.)
Kadasia, Bernard (International Cooperative Alliance, Nairobi)
King, David L.J. (International Federation of Agriculture Producers, Paris)
Kirby Johnson, Pamela (The Grain and Feed Trade Association, London)
Kisaga, Eliawony (Commonwealth Secretariat, London)
Mivedor, Samuel E. (African Development Bank, Abidjan)
Schmidhuber, Joseph (Organization for Economic Cooperation and Development, OECD, Paris)
Silva, Robério (Association of Coffee Producing Countries, London)
Smit, William (London International Financial Futures Options Exchange, London)
Springer, Hans Juergen (Asian Development Bank, Manila)
Wickham, Peter (International Monetary Fund, Washington, D.C.)
Vacant (European Commission, Brussels)
Vacant (The Board of Trade of the City of New York)

Advisors
Chalmin, Philippe (Société FranHaise d'Assurance-Crédit, Paris
Cordier, Jean (Ecole Nationale Supérieure Agronomique de Rennes, Rennes)
Gardner, Bruce (University of Maryland, Maryland)
Guillaumont, Patrick (Centre Etude pour la Recherche sur le Développement Internationale, Clermont Ferrand)
Kawuma, Fredrick (Uganda Coffee Trade Federation, Kampala)
Sarris, Alexander (University of Athens, Athens)
Smit, Hidde Pieter (Faculteit der Economische Wetenschappen, Free University, Amsterdam)
Tubiana, Laurence (Institut National de la Recherche Agronomique, Montpellier)
Zant, Wouter (Faculteit der Economische Wetenschappen, Free University, Amsterdam)

Source: list supplied by World Bank.

Cost estimates are very sketchy and depend on quite restrictive assumptions. For IDA-eligible countries (those with an income under $885; a larger group than the least developed, which excludes large countries) to be covered for twelve core export commodities (cocoa, coffee, sugar, wheat, corn, soya, rice, cotton, rubber, copper, aluminium and tin) and four food/feedstock imports (wheat, maize, soya and rice) to the level of 10 per cent of the volume of exports and imports. The Bank estimated the premium cost at only $160 million per year, or $80 million for countries on the assumption that aid resources would fund half of premium costs. If all developing countries were to be covered, the corresponding estimates would be $700 million ($350 million). Adding oil import coverage to the IDA countries is said to add only $40 million to the first figure. It is not clear how these premiums were calculated. They represent about 0.2% of the value of

low income countries' commodity exports or of their fuel imports. They seem to be very conservative given the level of fluctuations observed, but the cost depends on the share of producers covered, and their share in total exports. If they were correct, they would fall within the range which the EU alone could afford to fund on an annual basis, from what used to be the 'normal' EDF allocation to Stabex: €1.8 billion over 5 years, or about $306 million per year. Similarly the Common Fund for Commodities has unused financial resources of $167.5 million (at the end of 1999) on its first account alone.

Not included in these premium figures are the administrative costs of the intermediary (which might be met by the World Bank itself) or the premium risk exposure which it might run – a default rate of up to 50 per cent is sometimes mooted. These would need to be funded out of grant aid, so the questions of the scheme's proven efficiency vis-à-vis other forms of aid delivery comes into view: it is too early to know the results of the first pilot studies. A Trust Fund for the eventual ITF Scheme has already been established, and has attracted Dutch as well as EU contributions. France and the United States do not, however, seem keen to contribute, and others are awaiting advice from their legal services. The scheme was given a boost by World Bank President James Wolfensohn when the Fall meetings of the IMF/World Bank in Prague coincided with world commodity price instability (notably a sharp rise in oil prices): given the slump in commodity prices that was wreaking havoc for several developing countries 'I think the issue of protecting producers from big fluctuations in commodity export prices is valid', Mr Wolfensohn told the International Herald Tribune on 22nd September 2000. The World Bank is increasingly taking the lead on the ITF proposal, while the EU seems inclined to see it as an appropriate surrogate for Stabex.

Problems which could be envisaged include:

- Cost: The financial needs may vastly exceed the above estimates.
- Efficiency: It is as yet an untried scheme. Private sector insurance cover for farmers exists, and if it does not reach poor producers, it may be that they are uninsurable. There may be more effective ways of spending aid dollars, e.g. on reducing commodity dependence.
- Further market failure: It may be impossible to identify appropriate intermediaries/entities because institutions still have to be built (or rebuilt) to link producers with markets.
- Subsidised insurance, like subsidised credit, introduces distortions which may further encourage producers and countries to maintain the wrong production and employment mix.
- The instrument seems to be in the process of being adapted to serve more than one objective – to underpin HIPC, stabilise government revenues, and reinforce economic reform programmes but also to reach the poorest (including consumers of food as well as small-scale producers).
- The Task Force Membership (see table 6), which puts international trading house, financial futures markets and other private sector bodies cheek-by-jowl with the World Bank, the European Commission and UN bodies, plus the Common Fund for Commodities and even OPEC, may not be sustainable as a coalition.

Chapter 10: Compensation schemes for exporters

Here we look at existing or recent compensatory finance schemes which, like insurance, provide finance after a fall in prices. The EU at its peak had three (STABEX, SYSMIN and COMPEX) and there is one international scheme administered and funded by the IMF, the Compensatory Financing Facility (from 1963), with some more recent modifications, called since 1988 the Compensatory and Contingency Financing Facility (CCFF). The distinguishing feature of these schemes is that funds (not always donor funds, however) go to governments. All these Schemes are essentially defunct so our question is why they failed, and whether possible replacements, like the proposed World Bank/Task Force Risk Management Scheme, should incorporate some elements from them.

CCFF

The CCFF can be dealt with very briefly because its payments are not commodity-anchored. Moreover the fact that it levies heavy interest charges – higher than for ESAF borrowing or the current Poverty Reduction and Growth Facility – as well as bearing macro-economic conditions, means that it is not now deemed appropriate for developing countries. Few have availed themselves of CCFF funds in the 1990s; in recent years Russia has been the dominant user, mostly on its oil and gas accounts. The IMF also established a Buffer Stock Financing Facility in 1969, and resources were used for tin, sugar and rubber in the 1970s, but the Facility has not been activated since 1984.

STABEX

STABEX has generated an extensive literature ever since its Lomé I operations (1975-79) were comprehensively evaluated in 1982 (Hewitt). Promoted by Commissioner Cheysson as an 'insurance scheme' where the EU pays the premium, it in fact started as an export earnings partial-equalisation scheme funded by EDF aid (mostly, and in more recent years entirely by grants).

Its link with commodities was entirely in the triggering function: a loss of earnings on exports to the EU (only, in most cases) relative to a four-year trend brought forth automatic compensation payment for the government to use as it saw fit: this was, after all, the era of Third World commodity power. However the EC increasingly persuaded and then required the ACP government beneficiaries to reinvest the STABEX payments in the sectors and activities which were themselves the cause of earnings instability, thereby aggravating the commodity dependence problem; by the later 1980s the ACP were too weak to resist and STABEX became a projectised behemoth, requiring massive statistical analysis to justify the payments and over-judicious scrutiny of use (which was still often deemed illicit or uneconomic, e.g. when supporting a state marketing board which other donors were trying to dismantle...) (Hewitt, 1996)

At least half the EU member states in the end wanted STABEX abolished because they deemed it inefficient, inequitable and counter-productive. The ACP maintained solidarity in wanting STABEX to continue, even though only a handful of countries (Senegal and Ivory Coast in the early years but a broader range towards the end) obtained most of the transfers. Some small countries like Solomon Islands and Comoros became budgetarily addicted to regular STABEX infusions, so strong was their commodity cycle in triggering payments, in relation to other government revenues (Commonwealth Secretariat, 1999).

During the Lomé I-III conventions the share of STABEX in the EDF was about 11%. For Lomé IV, it rose to 12.8%, or €1.8bn for the final 5-year period 1995-2000, although there have been years in the 1990s when it has been unable to fund all the requests. Since 1975, STABEX transfers have totalled €4.4bn and it has been by far the fastest-disbursing instrument in the EU's aid

portfolio. The leading commodities triggering STABEX payments have been coffee, cocoa, groundnuts, cotton and copra (representing four-fifths of total transfers). Since Lomé IV expenditure has been more firmly constrained within the agricultural sector.

Though EU governments tied STABEX use increasingly to projects and, as fashions changed, even to poor farmers or groups, the instrument no longer performed the role of poverty-focused aid, which they eventually saw for the EDF. STABEX was probably killed by its own added conditions (not helped by ACP abuse in the early years) (Collier et al, 1999). It has been argued that rather than absorb STABEX funds into adjustment lending, reformers could do well to restore compensatory finance to its original function of promptly providing untied finance, to mitigate the adverse balance-of-payments (and where still relevant: export taxes are less important now, the budgetary) impact of commodity shocks (Raffer in House of Commons, 2000). The residual but largely unquantified elements of compensatory finance in the Convention of Cotonou seem to permit this. Otherwise, STABEX-analogue funds will be devoted to adjustment assistance and perhaps risk management (see below).

SYSMIN

SYSMIN existed from Lomé II onwards (i.e. from the beginning of the 1980s). SYSMIN always faced a dilemma: designed simply to maintain the output of certain mineral producing countries, soft aid funds were not the ideal instrument to deal with either corrupt, recently nationalised, mining concerns e.g. in central Africa, or the multinational mining corporations elsewhere who were the last to need EU subsidies. Its function, like ACP/Lomé fisheries policy, seemed designed for the ultimate benefit of northern industrial consumers, rather than poor developing countries, so it never performed a development finance role: nor is there evidence, e.g. from DRC and Zambia, that it sustained flagging mining industries or their exports. Its demise at the end of Lomé was not lamented. SYSMIN was funded at the level of €575 million for the final five-year period of Lomé (1995-2000) and will have disbursed over €1.7 billion over its 20-year life.

COMPEX

COMPEX had an even shorter and less effective life; indeed, when we attempted an inventory of all EC aid (Cox et al,1997) COMPEX had already almost vanished without trace. This was a brief attempt in the late 1980s to extend the benefits of STABEX to non-ACP least developed countries exporting (agricultural) commodities. Despite a commitment to a UN LLDC conference, the EC did not really have the administrative infrastructure to scrutinise claims from or implement transfers to small non-ACP countries. The COMPEX scheme proved largely symbolic (Haiti, which later became an ACP country, and Nepal were beneficiaries)and ended without fanfare a decade ago. Without a convention or treaty document, the least-developed countries had no means of pursuing their claims.

ARRANGEMENTS UNDER THE COTONOU CONVENTION

Unlike Lomé, the Cotonou Convention no longer has a section on Commodities, although the trade framework itself has been strengthened. Moreover, the number of financial instruments has been reduced and so STABEX has, at least nominally, and SYSMIN absolutely, been abolished. Instead the ninth EDF of €13.5 billion is divided up into long-term, regional and investment allocations (but the ACP have unspent balances from previous EDFs of €9.9 billion still due to them).

Article 68, however, recognises the continuing problem of export earning instability and sets up a system (not called STABEX) of 'additional support' within the financial envelope for long-term development. This latter totals €10 billion but nowhere in the convention is there an indication of what portion should be for this additional quasi-STABEX support. There are, however, listed

eligibility requirements – a 10% drop in export earnings, no longer based on a single commodity, reduced to only 2% for least-developed countries, or – and this is entirely new – 'a 10% worsening in the programmed public deficit' for the year in question or forecast for the following year. The implementing mechanism for this son-of-STABEX is to be established in cooperation with the ACP over the period November 2000-Feburary 2000 and the first requests are to cover the year July-June, so it is premature to prescribe how the system will work. (At present a single officer processes remaining STABEX claims.) What is significant is that the scheme can now compensate for losses of budgetary receipts. It is likely that the use of funds to support a reforming government, rather than to give automatic compensation for market losses, will become the dominant *modus operandi*. The link with commodities (and commodity prices) is thereby considerably loosened. It is certainly a much broader mechanism than STABEX; unlike many of the other innovations in Cotonou, it is not overtly oriented towards the private sector. The relative concessions to least developed countries are generous. Lastly, it of course applies only to the ACP countries (excluding South Africa) as signatories of the new Convention.

The EC, however, also commits itself in Article 68 to 'provide support for market-based insurance schemes designed for ACP states seeking to protect themselves against the risk of fluctuations in export earnings.' In the absence of any dedicated ACP risk-management scheme, this can only refer to the ITF proposal (which is non-discriminatory, with least developed country preference but for all developing countries).

So far €1.8 billion has been earmarked for the Trust Fund to support the ITF. At this early stage, any allocated funds are being used for studies, and these are all being conducted in Cotonou (ACP) signatories (a study of the use of put options in Uganda and Tanzania has already started). The amounts available seem large, and the EU has emerged as one of the leading backers of the World Bank led ITF experiment (some €500 million was allocated for basic studies in 1999). Later it may be that the EU will be in a position to subsidise or pay the 'insurance premium' on an operational risk-management scheme, if ACP countries make a request (i.e. give this priority within their other programmed uses of long-term aid). This would be a small but important complement to the new Cotonou trade framework which has the broader objective of integrating hitherto preference-dependent ACP states more fully into world markets, including regional trade arrangements and reciprocal agreements with the EU, and public funds to stimulate private investment. It would be the only element which continued to be commodity-specific, since even the 'additional' stabilisation support is more designed to sustain general government revenues in difficult times.

Chapter 11: Compensation payments to the poor

While we focus on the impact of prices level or fluctuations on the poor, it may be kept in mind that a large proportion of the poor in developing countries is excluded from trade in commodities altogether. In many cases the poor are not where commodities are, and they trade largely locally in staple crops. The poor may also be worse off – either in relative or absolute terms – because of negative externalities associated with trade in commodities (e.g. the war in the Congo and the conflict in Sierra Leone). These are not the object of this study but must also be kept in mind. Developed countries' governments and firms often have a substantial actual and potential influence on – and thus responsibility for – conflicts fueled by international trade in commodities, through direct and indirect political and economic relations. Where the poor live where the commodities are, and exclusion is at the root of a conflict over the commodity in question, as in the case of oil exploitation in Nigeria, compensation payments are hardly an answer; instead what is needed is a redistribution policy (in the short term) and the creation of revenue opportunities in other sectors, i.e. diversification (in the long run). Here we look at cases where the poor trade in commodities, either as producers or consumers, or both, and are negatively affected by fluctuation in prices. Targeting compensation mechanisms at poor commodity-dependent countries does not necessarily target poor people. Several difficulties arise in assessing the impact of commodity prices fluctuations on the poor, which complicate the design of compensation payments for the poor. The main issue here is to single out who to target: who are 'the poor'?

First, not all poor people live in countries considered as among the poorest. Although countries classified as Least Developed make up a substantial share of commodity dependent countries and poverty incidence there is very high, poverty incidence is also high or significant in other commodity export dependent countries such as Ghana, Congo, Cameroon, Egypt, South Africa, Vietnam, or Guatemala.

Second, we may want to target not just the poor of today, but also those who could be poor tomorrow. In the absence of alternative job opportunities, dependence on a limited number of commodities may well increase the vulnerability of certain categories of people, such as small commodity producers and their dependants, to medium and long-term price changes. For instance, banana or sugar producers in the Caribbean islands, or cattle farmers in Namibia, may enjoy standards of living above a given poverty threshold, but as special arrangements guaranteeing stable and/or above-market prices are being phased out (e.g. the benefits of Lomé protocols eroded by CAP reforms and multilateral negotiations on agriculture), their revenues are at risk. Therefore, targeting poor commodity dependent countries is not enough to ensure that the poor actually or potentially affected by commodity prices fluctuations are reached.

Third, the poor are far from being a homogeneous group. Assessing the impact of commodity price fluctuations on poor people requires that attention be focussed on the various poor groups and individuals within a given country. A good understanding of the various ways in which the latter are involved in trade in commodities is essential before devising compensation payment mechanisms aimed at benefiting them. Varying characteristics will affect the extent and the direction (positive or negative) of the impact of price changes. One of these characteristics is whether the poor considered are net consumers or net producers of a given commodity: in the case of falling prices for rice, net consumers such as Senegal will benefit, while net producers such as Thailand will lose. The net effect of changes in commodity prices can only be grasped by considering the multiplicity of activities in which households and individuals are engaged as consumers, income earners and producers.

Fourth, and related to the previous point, the risks and opportunities to which the poor are

confronted with regard to 'commodity price problems' vary, both with the nature of the commodity considered and the type of risk. Thus the poor within a given country may be negatively affected by:

- unstable revenues from trade in commodities due to short term fluctuations (e.g. instability affecting most agricultural producers, for instance of cotton in Sahelian countries or Azerbaijan);
- medium term changes such as changes in oil prices for poor groups in oil importing countries;
- permanent changes in technology affecting competitiveness (e.g. the sharp increase in competition from synthetic alternatives to essences such as vanilla or ilang ilang depressing prices for producers in Madagascar and the Comoros);
- the long term decline in commodity prices (cocoa producers in Ghana and Côte d'Ivoire, gold in Ghana and South Africa, etc.);

This makes it difficult to devise a general mechanism specifically for compensating the poor. For instance, attempts at targeting the poor through *national commodity-specific compensation payment schemes* have, at best, a mixed record. Marketing boards for commodities have targeted not the poor as such, but commodity producers in sectors where the poor made up a substantial share of labour (e.g. cocoa in Côte d'Ivoire). They have shown their limits: in some African countries, farmers received *on average* less than half the world prices for their production due to the inefficiency of those marketing boards.

If diversification is the ultimate objective, specific measures to reduce the negative consequences of primary production on the poor may be desirable in the short run, but should not make commodity production more attractive in the long run. What is needed is to enhance the capacity of the poor to respond to change. This means assessing how the combination of assets they use in producing agricultural or industrial goods or services – natural, social, human, physical and financial capital – can be positively altered to allow them to respond to trade-related changes/shocks in general, including changes related to commodity prices fluctuations. Depending on the conditions prevailing within specific communities, such measures can include a variety of micro-level interventions.

General support to enhance and diversify assets, and increase productivity and value-added through the development of agro-processing includes: access to finance, rural credit facilities to non-farm activities, provision of extension services, training, etc. An example is donors' support to fisheries in Senegal: enhancing the capacity of the fish-processing sector to attain OECD countries health and safety requirements – on a cost-sharing basis – has increased the predictability and level of incomes for traditional fishermen, while supporting the creation of jobs at the industrial end of the sector. Improving social infrastructure, health and education, or physical infrastructure that can enable new economic sectors to emerge, transport and communications, will also enhance productivity.

Specific, community-based mechanisms can also be set up to reduce commodity price-related risks. A case in point is ASERCA in Mexico, an (governmental) institutional arrangement allowing for a large domestic entity to pool price risks from many small cotton farmers and hedge them in the international market. For a fee, ASERCA offers a guaranteed price and hedges its own risk by using the fee to purchase a put option on the exchange for future delivery at harvest time (Larson et al, 1998). This however is possible only with a relatively large pool of producers.

Part Three

Chapter 12: Conclusion

The purpose of attempts to improve the position of developing country commodity producers is to increase the countries' income and to reduce poverty within them.

The evidence from those countries which have developed successfully is that the long-term strategy must be to diversify, into new products (or services). External assistance can provide general support for this: improving general economic and social infrastructure, developing the regulatory and financial institutions, technical assistance in new products, and good access for new products, but the strategy has to be national. Other countries can avoid offering 'negative incentives', encouraging failure to diversify through preferences favouring traditional goods or through protecting their own traditional sectors.

Moving into what appear to be logical first steps, other commodities or processing of the existing exports, is unlikely to be a substitute for industrialisation. Other commodities are likely to face natural barriers to production or marketing (particularly in small countries), so this can only be a secondary strategy. Moving to processing appears to face market structure barriers: in the short term these are as insurmountable as natural barriers for an individual country, but international policy might be able to alter the power held by a small number of companies. Reforms within countries have increased the share of export income reaching producers; changing international markets could reinforce these.

Countries which must remain primary producers (indefinitely or for a transition period) need support, because they are poor and lack the resources to cope with falling and unstable prices while they diversify, but any assistance must avoid discouraging them from diversifying by appearing to alter the long-term disadvantages of commodity specialisation.

Holding prices above the market price could give further temporary assistance, but the long term fall in prices makes stabilising impossible through market means and impossibly costly through aid. There is also a potential mismatch between the objectives (to help countries) and the means (market support for particular producers and existing production).

Countries may benefit from any temporary stabilising of the income from commodities, which will reduce risk, although the lack of evidence of serious effects from fluctuations suggests caution in devoting substantial resources to this. There has been a transition, still continuing, from doing this by means of government action (marketing boards at country level and commodity agreements at international) and physical means (stocks) to using private markets and financial instruments (analogous to the monetisation of economies). Financial instruments cannot be a full substitute for physical stocks for goods where annual production is a significant proportion of total supply (agricultural goods and energy, for example), and are only appropriate for some commodities and probably not for the most vulnerable, small countries. They cannot deal with the large and long-term fluctuations which were identified as the most damaging to growth. They have a useful role for some, in combining adjustment and financing of fluctuations. The general support to infrastructure and institutions identified as necessary to create the conditions for diversification will also help create the conditions for successful use of financial instruments. More specific assistance, both technical and through initial subsidies, could encourage new users. Insurance has a role where countries do not have the financial or technical capacity to use derivatives. But if it is offered by governments in circumstances where private insurers are

unwilling to operate, some of its costs will almost certainly need to be met through aid programmes. If aid is to be diverted to create or to support insurance or derivative programmes, it is essential to ensure that the support is to those programmes where poor producers would not otherwise have access to the instruments, targeting areas like identifying intermediaries and training. It must also be time-limited and linked to a diversification strategy. A self-financing insurance against price fluctuations improves the efficiency of the market by allowing the appropriate allocation of risk. A permanently subsidised insurance offers a wrong incentive to continue in commodity production.

At the limit of subsidised insurance is simple compensation. There has been a move in both the IMF and the EU away from compensation directly related to commodity prices and directed at producers towards responding to a more general loss of income and encouraging a less commodity-based response. The more targeted versions of the World Bank's ITF scheme (for poor producers in poor countries) also move in this direction. This becomes more akin to helping poor countries facing difficult times than providing market smoothing on a commercial basis. We need to ask if there is any purpose in tying it to commodity prices. The EU has unspent balances from the EDF which could be used to support the ITF or a similar scheme to replace STABEX. But it is necessary to clarify whether the intention is to help poor countries, to target ACP countries, or to improve the efficiency of markets for commodity producers. And there may be more appropriate ways of doing each of these: normal aid programmes, perhaps with a focus on infrastructure, Cotonou commitments, and regulating uncompetitive markets for commodities.

Bibliography

Bloch, H. and Sapsford, D. (2000) 'Whither the terms of trade? An elaboration of the Prebisch-Singer hypothesis', *Cambridge Journal of Economics* 24: 461–481.

Carvalho, Anthony de and Suni, Paavo (2000) 'World Commodity Prices 2000-2002'. Report presented at AIECE Autumn Meeting, Brussels, 26-27, October.

Cashin, P., Liang, H. and McDermott, C. J. (1999). 'How Persistent Are Shocks to World Commodity Prices?'. IMF Working Paper. Washington, DC: IMF.

Cashin, P., McDermott C. J. and Scott, A. (1999) 'The Myth of Comoving Commodity Prices'. IMF Working Paper. Washington, DC: IMF.

Cashin, P. and Pattillo, C. (2000) 'Terms of Trade Shocks in Africa: Are They Short-Lived or Long-Lived?'. IMF Working Paper. Washington, DC: IMF.

Chote, Robert (1999) 'World Economy and Finance 26 Europe: Price ups and downs pose problems:Commodities', *Financial Times*, 24 September.

Collier, P., Guillaumont, P., Guillaumont Jeanneney, S. and Gunning J.W. (1999) 'Reforming Stabex', *The World Economy* 22(3).

Common Fund for Commodities (1999) 'Annual Report'

Commonwealth Secretariat (1999) 'Stabex: Negotiating Brief'

Cox, Aidan and Koning, Antonique (1997) *Understanding European Community Aid: Aid Policies, Management and Distribution Explained*. London: Overseas Development Institute and Brussels: European Commission.

Cuddington, John T. and Liang, Hong (2000) 'Will the Emergence of the Euro Affect World Commodity Prices?'. UNU/WIDER Working Paper No. 178.

Dehn, J. (2000) 'Commodity Price Uncertainty and Shocks: Implications for Economic Growth'. Preliminary Draft, April.

Dehn, J. (2000) 'Private Investment in Developing Countries: The Effects of Commodity Shocks and Uncertainty'. Preliminary Draft, May.

Duncan, Ronald C. and Rutten, Lamon (1996) 'Managing Commodity Price Instability in Newly Liberalised Economies'. Global Economic Institutions Working Paper Series, No. 9.

Dunlop, A. (1999) *What Future for Lomé's Commodity Protocols?* ECDPM Discussion Paper 5, Maastricht: ECDPM.

ECDPM (1999) *The Future of Lomé's Commodity Protocols: Fiddling while Rome Burns?* Lomé Negotiating Brief No. 6, Maastricht: ECDPM.

European Commission (2000) 'The Cotonou Agreement'. Available at

http://europa.eu.int/comm/development/cotonou/index_en.thm

Gardner, B. (2000) *Recent Risk Management policy Developments in North America*. Paper for ABCDE, Paris (mimeo).

GATT (1979) 'Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries'. Available at http://www.wto.org/english/tratop_e/region_e/regenb_e.htm

Gilbert, C. L. (1999) 'Commodity Risk Management for Developing Countries'. Paper Prepared for the Third Meeting of the International Task Force (ITF) Meeting held in Geneva, 23-24 June 1999.

Hewitt, A. P. (1982) *Synthesis Report on the Overall Impact of STABEX Operations, 1975-79, based on Ten ACP Case Studies* London: Overseas Development Institute.

Hewitt, A. P. and Singer, Hans (1990): 'Commodities: How to Foster Diversification, not Dependence' *Africa Recovery*, Oct -Dec. New York: United Nations.

Hewitt, A. P. (1996) 'A Singular Attempt to Combine Aid and Compensatory Finance: The Mixed Success of STABEX 1975-95' in O. Stokke (ed.), *Foreign Aid Towards the Year 2000: experiences and Challenges* London: Frank Cass.

House of Commons (2000) 'Report of the International Development Committee: The Effectiveness of EC Development Assistance.'

Hughes-Hallet, Andrew J. and Ramanujan, Pratap (1990) 'Marketing Solutions to the Problem of Stabilising Commodity Earnings'. CEPR Working Paper, 48. Centre for Economic Policy Research, London.

International Coffee Organisation (2000) *Draft International Coffee Agreement, 2001.*

IMF (2000) *World Economic Outlook*. Washington DC : IMF.

International Task Force (ITF) (1999) *ITF Progress Report, September 1999*. www.worldbank.org/commrisk.

Larson, D.F., Varangis, P. and Yabuki, N. (1998) 'Commodity Risk Management and Development'. Paper prepared for the Roundtable Discussion on New Approaches to Commodity Risk Management in Developing Countries, World Bank, Washington, DC April 28.

Maizels, Alfred (1995) *Commodities in Crisis*. Oxford: OUP.

Masuoka, Toshiya (1993) 'Asset and Liability Management: Modern Financial Techniques' in Stijn Claessens and Ronald C. Duncan (eds) *Managing Commodity Price Risk in Developing Countries*, World Bank, Washington, DC.

Matringe, Olivier (1997) 'An Intergrated Approach to the Management of Production and Marketing Risks in the Primary Sector of the Developing Countries'. Study for UNCTAD, UNCTAD/ITCD/COM/8.

Morgan, C.W., Rayner, A.J. and Valliant, C. (1997) 'Agricultural Futures Markets in LDCs: A Policy Response to Price Volatility?' Department of Economics, University of Nottingham.

OECD (1997) 'Market Access for the Least-Developed Countries: Where are the Obstacles?', Paper Prepared for WTO High-Level Meeting on Integrated Initiatives for Least-Developed Countries' Trade Development. France : OECD.

O'Rourke, Kevin H. and Williamson, Jeffrey G. (2000) 'When did Globalisation Begin?', NBER Working Paper 7632. Cambridge, MA: NBER.

Page, S. (1990) *Trade, Finance and Developing Countries: Strategies and Constraints in the 1990s*. USA: Barnes & Nobel Books.

Pincus, J. A. (1964) 'What Policy for Commodities?', *Foreign Affairs* 42 (2) : 227–241

Prebisch, Paul (1950) *The Economic Development of Latin America and its Principal Problem*. Santiago: UNECLA.

Rogers, C. D. (1973) 'International Commodity Agreements', *Lloyds Bank Review* 108 : 33–47.

Rutten, Lamon (2000) 'UNCTAD's Work on Commodity Risk Management and Finance – A Chronology'. Available at http://wbln0018.worldbank.org/SRM/ITF.

Sarris, A. (1999) 'Commodity Risk Management for Developing Countries. Towards Implementing a New Approach'. Paper Prepared for the Third Meeting of the International Task Force (ITF) on Commodity Risk Management for Developing Countries held in Geneva, 23-24 June 1999.

Singer, Hans (1950) 'The Distribution of Gains between investing and borrowing countries', *American Economic Review, Papers and Proceedings*, 40: 473-485.

Spraos, J. (1989) 'Kaldor on Commodities'. *Cambridge Journal of Economics* 13.

Stevens, C., McQueen, M. and Kennan, J. (1998) *After Lomé IV: A Strategy for ACP-EU Relations in the 21st Century*. IDS and Commonwealth Secretariat.

UN (1999) *World Economic and Social Survey*. New York: UN.

UN (2000) 'World Commodity Trends and Prospects'. Note by the Secretary-General, A/55/…

UN (2000) *Monthly Commodity Price Bulletin*, 20 (6). Geneva: UN.

UNCTAD (1997) 'Diversification in Commodity-Dependent Countries: The Role of Governments, Enterprises and Institutions'. TD/B/COM.1/12.

UNCTAD (1997) 'Agreed Conclusions: Item 3 – Diversification in Commodity-Dependent Countries'. TD/B/COM.1/L.6.

UNCTAD (1997) 'Government Policies Affecting the Use of Commodity Price Risk Management and Access to Commodity Finance in Developing Countries'.

UNCTAD/ITCD/COM/7.

UNCTAD (1998) Minutes of Agenda Item 3 of Trade and Development Board Expert Meeting to Examine the Effectiveness and Usefulness for Commodity-dependent Countries of New Tools in Commodity Markets: Risk Management and Collateralized Finance held in Geneva, 4-6 May 1998.

UNCTAD (1999) 'The Impact of Changing Supply-And-Demand Market Structures on Commodity Prices and Exports of Major Interests to Developing Countries',TD/B/COM.1/EM.10/2

UNCTAD (1999) 'The World Commodity Economy: Recent Evolution. Financial Crises, and Changing Market Structures'. TD/B/COM.1/27.

UNCTAD (1999) 'Report of the Expert Meeting on the Impact of Changing Supply-and-Demand Market Structures on Commodity Prices and Exports of Major Interest to Developing Countries'. TD/B/com.1/26. TD/B/Com.1/EM.20/3.

UNCTAD (1999) *Handbook of International Trade and Development Statistics 1996/1997*. Geneva : UN, TD/STAT.24.

UNCTAD (1999) *Trade and Development Report, 1999*. Geneva: UN.

Varangis, Paros and Larson, Don (1996) 'Dealing with Commodity Price Uncertainty'. Policy Research Paper, 1667, The World Bank, October.

World Bank (1999) 'Commodity Risk Management in Developing Countries: A Proposed Market-Based Approach'.

World Bank (2001) 'Global Development Finance: Building Coalitions for Effective Development Finance. Analysis and Summary Tables'. Washington, DC: World Bank.

WTO (1994) 'The Results of the Uruguay Round'.

WTO (1997) 'Market Access for Least-Developed Countries', Paper Prepared for WTO High-Level Meeting on Integrated Initiatives for Least-Developed Countries' Trade Development. France : OECD.

WTO (1999) *Annual Report, 1999*. Geneva: WTO.