

Commodities under Neoliberalism: The Case of Cocoa

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Abstract

The paper examines the case of cocoa as an illustration of the problems faced by primary commodity producers. The impact of market liberalisation within cocoa producing countries and industrial countries, the main consumers, on the cocoa price and cocoa farmers is examined. The paper shows that the market liberalisation cannot be held responsible for such improvements in productive efficiency as occurred over time, which was one of the two stated goals of these measure. Nor is there convincing evidence that the producer's share in the export price increased, which was the other goal. A serious consequence of the preoccupation with market liberalisation, however, was that it diverted attention from the problems that are of main concern to cocoa producers, viz., the market volatility, low prices, and the producers' share in the value chain. The paper then goes on to explore the kinds of action that might be considered to address these issues. It makes a case for filling the institutional vacuum that has been created as a result of the abolition of state marketing authorities in several cocoa producing countries. The paper attempts to show that the conditions are favourable for a cocoa producers' alliance to emerge, which is desirable from the viewpoint of regulating cocoa supplies to prevent further price declines.

There was a time when commodities figured prominently in the discussions on international financial, trade, and development issues. Already in the early 1940s, Keynes, as he conceptualised what were to emerge as the twin Bretton Woods institutions, devoted a great deal of thought to the commodity issue and its close links with international financial stability. (Keynes 1943) He laboured in the shadow of the Great Depression, when commodity prices plummeted to depths not seen before, and worries over commodity shortages during and after the World War.

At that time, the commodity problem – the volatility and unreliability of commodity markets – was of concern to industrial as much as to developing countries. The disjuncture of interest in commodities came later, as the former managed to reduce their vulnerability to the vagaries of commodity markets with the development of synthetics and other means and by putting in place a formidable and effective structure of agriculture protection¹, even as the dependency on commodities, as providers of livelihood and foreign exchange, in a large part of the developing world remained undiminished.

Thus, the interest in international solutions to the commodity problem on the part of the industrial countries waned over time, turning into near hostility to global cooperative actions under the sway of the neoliberal ideas. International commodity agreements, buffer stock schemes, and other state interventions are now widely held as failures, never to be repeated again.

But the commodity problem remains. It afflicts particularly the poorest countries, threatening their livelihood and jeopardising their national economic management through the impact on government budget and exchange earnings. There is a reluctance to take up the subject of commodities and explore possible solutions in the world forums concerned with issues of trade and finance. Jacques Chirac has called it “a sort of conspiracy of silence”.² While the world development community, rightly, worries about the external debt burden on the very poor countries, it gives little thought to what is arguably the other half of the problem.

This paper aims to contribute to the current efforts launched by several NGOs and others to bring back the issue of commodities into the world trade, finance, and development agenda. It examines the case of cocoa, a commodity that remains important as a source of income and foreign exchange earnings for several developing countries and that has been subjected to market liberalisation at both domestic and international levels. It will be seen that cocoa captures rather well some of the principal generic issues that face primary commodities, and therefore offers insights into the kind of actions that might be considered to address the commodity problem.

¹ The protection of agriculture in the industrial countries was taken out of the GATT-framework, and it continues until today to be an area of controversy and hypocrisy in multilateral trade negotiations.

² President Jacques Chirac, speaking to the 22nd Summit of the Heads of State of Africa and France, Paris, 20 February 2003.

The paper is organised as follows. The first section describes the structure of the cocoa market and identifies the factors that are deemed to explain price formation. This provides the necessary background to the discussion on the impact of neoliberal policies on cocoa producers, a matter that is addressed in Section 2. Section 3 then addresses the generic issues and explores the remedies that might be considered in the light of past experience. The last section offers conclusions.

1. *The Cocoa Market and Price Formation*

There are basically three generic issues that arise in the context of primary commodities: the world market volatility, the declining trend in commodity prices, and the relatively small share of primary producers in the “value chain”³. They arise out of the way primary commodity markets are structured, function, and behave. Since at the core of the commodity problem is the struggle for bringing world supplies and demand into balance in the short as well as long-term, who produces what and at what cost is central to its resolution.

Cocoa Production

Cocoa is among the more important commodities exported by developing countries, with a world total of about \$2.5 billion in recent years. Although the plant came originally from the Americas, the principal producers of cocoa, since its rise as a major export over the past century, have been in West Africa. Four countries – Côte d’Ivoire, Ghana, Nigeria, and Cameroon – account for about two-thirds of world production, and three-quarters of world exports of cocoa beans. (Chart 1) Starting virtually from nothing, Indonesia ranks today as the second highest producer, just slightly above Ghana, once the world’s largest producer. Other major producers are Brazil and Malaysia, accounting together for a little more than 10 percent of world output.

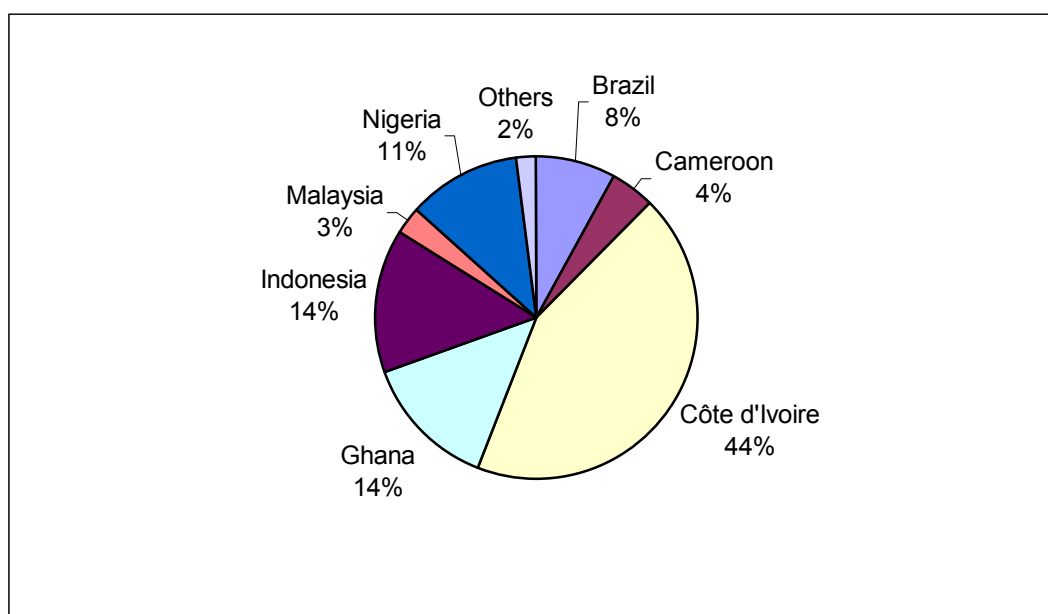
Cocoa producers are a rather diverse group. Brazil and Malaysia are relatively high-income developing countries, while Ghana, Nigeria, and Indonesia are among the lower-income countries. Côte d’Ivoire and Cameroon fall somewhere in the middle. Four countries – Cameroon, Côte d’Ivoire, Ghana, and Malaysia – have

³ “Value chain” basically refers to the chain of value added as a commodity moves and gets processed from the farmgate to the final consumer.

rather small populations, ranging between 10-20 million, while the other three major producers have populations falling within the range of 100-200 million. For the four largest economies (due to their relatively high per capita income or large population), cocoa is a rather insignificant source of income, employment, or foreign exchange earnings. For these countries, cocoa exports amount to less than one percent of the total export earnings. On the other hand, for Côte d'Ivoire and Ghana, more than 30 percent and 25 percent of the total earnings, respectively, comes from cocoa exports. Thus, what happens in the world cocoa market is of critical interest to these two countries, and the developments in these two countries have a great impact on the world market, as happened in late 2002, when the cocoa price shot up consequent to the civil disturbances in Côte d'Ivoire.

Chart 1: Major Producers of Cocoa

(1997-2001 shares in world production)



The structure of production – how production is organized – also differs among countries. While production in West Africa is heavily concentrated in very small farms, Malaysia and Brazil have mostly large estates. Indonesia contains both large plantations (some privately owned, some owned by state) and smallholder producers, though the share of the former has declined from some 80 percent to about 20 percent of the output in the last two decades. (Bedford, et al. 2001)

There are significant differences between the two modes of production. Large estates (especially those privately-owned) are run rather like commercial firms, i.e., profitability is given much greater weight in production decisions. For smallholders, profits do not have a clear meaning since they also provide labour. Large estates are therefore less wedded to producing cocoa and are more prepared to withdraw when market conditions turn unfavourable. Their large size and financial resources make them better able to adopt high-yield varieties and new technologies and business practices, with the result that overall yields on estates tend to be considerably higher. But this advantage is offset by the fact that cocoa is quintessentially a smallholder crop that requires high labour input to harvest and dry the crop. Thus, in terms of production costs, smallholder producers have considerable advantage over the larger estates. (Ruf and de Milly 1990)

The 1990s witnessed a sharp slowdown in overall production of cocoa, mainly as a result of the declines in Malaysia and Brazil. Ghana and, to a much smaller extent, Cameroon were the only major producers where production rose faster than in the decade before. (Table 1) Although Indonesia's rate of expansion also slowed (which was to be expected, considering the very small base from where it started), its production nevertheless continued to expand at what is an astounding rate of 13 percent a year.

Table 1: Growth rates of production and area harvested

(Annual % trend rates of growth)

Countries	Production		Area harvested
	1980-89	1990-99	1990-99
Brazil	1.9	-2.8	-0.1
Cameroon	1.7	2.2	0.6
Côte d'Ivoire	8.8	6.7	5.2
Ghana	0.8	5.7	8.3
Indonesia	28.4	12.8	7.7
Malaysia	23.8	-12.4	-14.2
Nigeria	4.5	1.0	2.1
World total	5.2	2.1	

Source: FAO Database

Table 2 gives the data on yields relative to the overall average in each of the leading cocoa producing countries. In this respect, the West African countries and Brazil lag far behind the two Asian producers, Malaysia and Indonesia. Côte d'Ivoire and Indonesia realised output expansion through a combination of expansion of the area harvested and improved yields, while yields in Ghana declined. The output increased in the latter entirely due to expansion in the area harvested. The relative position of Brazil, Ghana, and Nigeria deteriorated over time, while Côte d'Ivoire and Cameroon registered an improvement. Brazil's yields and overall output suffered from "witches' broom", a plant disease. In the case of Ghana, Nigeria, and Cameroon, the main reason for low yields is the dominance (50 percent or higher) of old trees of 30 years or higher age.

Table 2: Yields per hectare

(As a % of overall average=100)

	<u>1990-94</u>	<u>1995-99</u>
Brazil	84	69
Cameroon	56	64
Côte d'Ivoire	101	105
Ghana	73	64
Indonesia	166	176
Malaysia	147	151
Nigeria	73	71

Source: FAO Database

The availability of a suitable natural environment is critical to future expansion of cocoa. According to an International Cocoa Organisation (ICCO) study, soil and climate conditions were considered particularly favourable for cocoa production in Malaysia and Indonesia, though they are unable to dry the harvest naturally, which makes the cocoa acidic (Ruf and de Milly 1990). Because of this and the fact that their output is of uneven size and high shell content, the market price for the East Asian cocoa is discounted. Conditions in the other producing countries were held to range from average to good. Land availability for cocoa farming, however, is negligible to modest in the case of Brazil, Nigeria, and Côte d'Ivoire. Malaysia, as noted, reduced drastically its area under cocoa in the 1990s. Indonesia is the only major producer with considerable land availability, though Ghana too has good

potential. Cocoa from Ghana (and, until recently, Cameroon) is considered to be of high quality, and attracts a premium in the market.

The Behaviour of Cocoa Prices

The behaviour of cocoa prices has been typical of other primary products: wide fluctuations and a declining secular trend. Table 3 gives the estimates of price volatility (after adjusting for inflation)⁴ for cocoa and a few selected groups of agricultural products. As they have been averaged over the year, these indices underestimate the price volatility on a day-to-day basis. However, the year-to-year fluctuations are likely to give a better sense of the fluctuations in farmer income, since the price on any single day affects only the trades of that day.

During practically each of the past four decades, the cocoa price was more unstable than the entire group of tropical beverages to which cocoa belongs (the other commodities in the group are coffee and tea) as well as the other commodity groups, “vegetable oilseeds and oils” and “agricultural raw materials”. The only exceptions were the 1980s, when the cocoa price was just a little less volatile than vegetable oilseeds and oils, and the 1990s, when it was overall more stable than its own group average.

Table 3: Price volatility index for Cocoa and Selected Commodity Groups (%)

	1960-69	1970-79	1980-89	1990-99
Cocoa	16.3	22.0	20.3	11.5
Tropical beverages	5.2	21.0	18.5	17.9
Vegetable oilseeds and oils	6.4	17.0	22.7	7.5
Agricultural raw materials	4.0	11.6	6.2	5.9

Source: UNCTAD

The data also indicate that the price volatility tends to rise in periods of high global inflation, i.e., the 1970s and the 1980s, even though inflation as such seems to have little influence on the volatility of individual prices. The instability indices relating to current prices (not shown) are of an order of magnitude similar to those for prices adjusted for general inflation. What is of significance, however, is that there is no indication that the economic liberalisation and globalisation of the 1990s made

⁴ The instability index has been derived by taking the average of the deviations from the trend-line estimated by means of least-squares.

agricultural prices more unstable. In fact, the instability index in each case was lower than in the previous decades, in some cases considerably so. It is also the case that the International Cocoa Agreements of the 1970s and 1980s did little to stabilise prices, an issue taken up later. One likely explanation for the greater price stability could be the very low prices of the 1990s. Since cocoa supplies are difficult to increase in times of scarcity (trees take a long time to mature) and slow to reduce in periods of abundance (smallholders do not readily shift to other occupations), cocoa prices are known for their sharp peaks and long, flat bottoms.

The situation with respect to the variability in the export unit value, which approximates the f.o.b. price received by the producing country, is rather different. The data in Table 4 show that the volatility in export unit value⁵ (measured in current US dollars) was much higher in each of the major cocoa producing countries than the volatility in the world price during the 1980s as well as the 1990s. There is no satisfactory explanation for this, except that export activity might be concentrated during part of the year when cocoa is harvested. This is the time when the spot market is more active and fluid.

However, the behaviour of the volatility of the unit values between the 1980s and 1990s was mixed. The instability index declined sharply for Ghana, which did not liberalise its cocoa sector, and increased sharply for Cameroon, which did. The index changed very slightly for other countries, falling for Côte d'Ivoire and Indonesia, and rising in the case of Nigeria and Brazil. The impact of liberalisation measures is examined in the next section.

Table 4. Volatility in the Export Unit Value in Major Cocoa Producing Countries (%)

	Brazil	Cameroon	Côte d'Ivoire	Ghana	Nigeria	Indonesia	World Price
1980-89	18.7	15.3	21.8	25.3	19.8	21.5	14.8
1990-2000	18.8	27.5	19.5	13.5	20.7	21.2	12.3

Source: Derived from the data on export unit values from the FAO database.

⁵ The volatility index for world price in this table is different from the one in Table 3, as the data here relate to current prices.

Even though the international cocoa agreements and state marketing authorities were intended to intervene in the market, there appears to be no evidence that this had any discernable impact on the market. It is the interaction of supply and demand that seems to have largely determined the world cocoa price. The relative force of demand and supply is captured by the movements in world stocks of raw cocoa: i.e., falling stocks imply demand in excess of supply at the prevailing price, and the opposite occurs when the stocks rise. In other words, if the world market functions well, the cocoa price must be sensitive to the level of stocks relative to the demand. In the case of cocoa, world grindings can be taken to represent demand. The relationship between the cocoa price (in constant SDRs) and the ratio of cocoa stocks to grindings over the 1961-2000 period can be seen in Chart 2. It is clear that cocoa prices do indeed tend to rise when cocoa stocks are low in relation to grindings, and vice-versa.

Table 5: Cocoa prices and the Stock ratio

(10-year period average)

	Stock ratio	
	%	World price SDR2002/ton
1960-69	40.1	2875
1970-79	27.5	4375
1980-89	43.0	2582
1990-99	54.1	1063

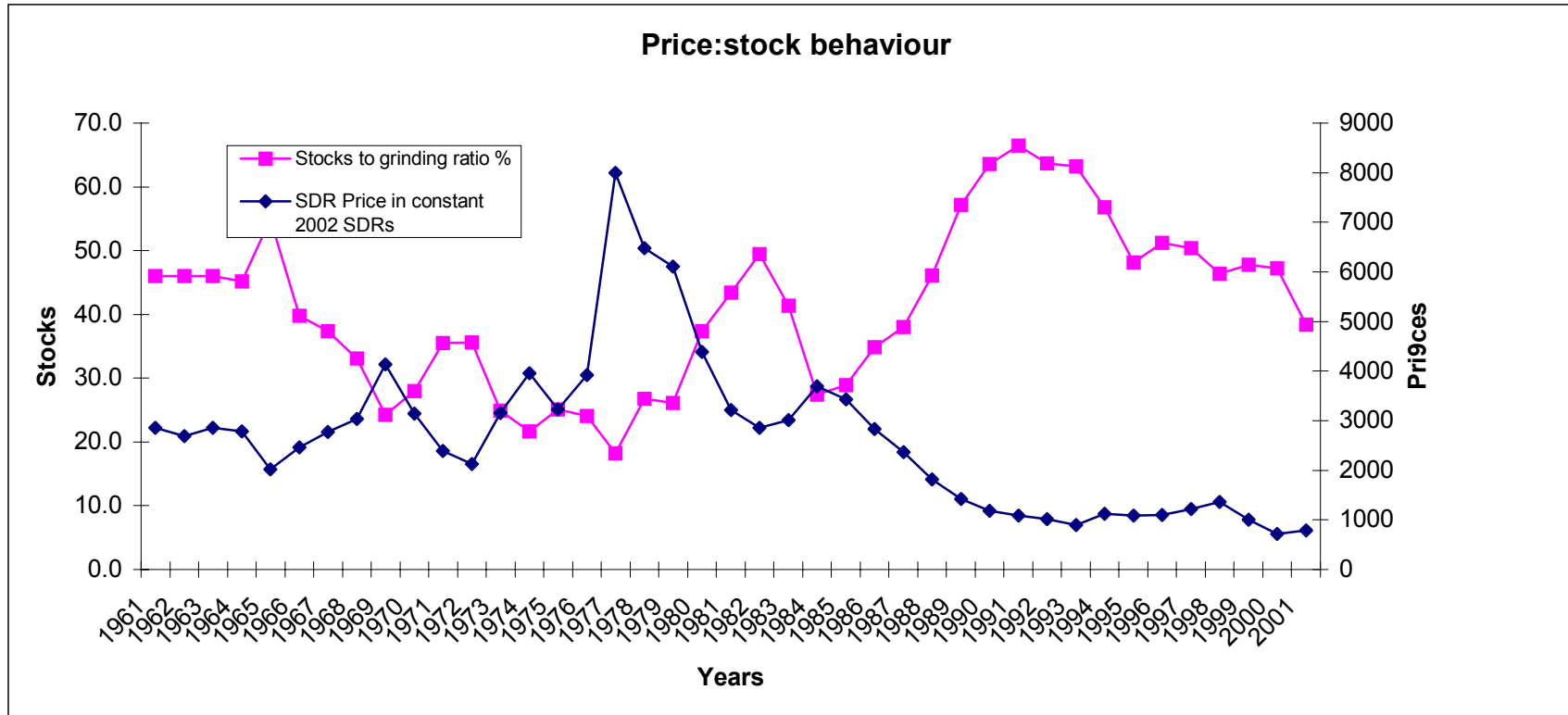
Source: ICCO

(1) R^2 measures the percentage of variation in price due to changes in the stock ratio over the specified period.

Table 5 gives the 10-year average for both stock levels and prices over the last four decades. On the face of it, it is possible to explain the high prices during the 1970s in terms of low stock levels, and the low prices of the 1990s in terms of high stocks. Similarly, comparing the situation during the 1960s and the 1980s, it is seen that the prices were 11 percent lower in the latter period when the stock ratio was about 8 percent higher. Thus, even at a fairly high level of aggregation, the negative relationship between the stock-to-grinding ratio and the world price appears to hold rather well.

Nevertheless, a closer examination of the relationship is warranted. Visual inspection of Chart 2 suggests that the relationship is far from stable and that the

Chart 2: The Behaviour of Cocoa Price and Stock:Grinding Ratio



price decline during the 1990s is hard to explain in terms of the movement of stocks *within* the decade. In order to see how the relationship held up over time, regressions were run for the data on prices and stocks including and excluding the time trend.

The results are reported in Table 6.⁶

Table 6: Regression results (price as dependent variable)

	Intercept	Time	Stock-ratio	R ²
1961-01	50.74	-0.02 (4.75)	-0.03 (6.84)	0.75
1961-70	90.40	-0.04 (2.95)	-0.03 (5.99)	0.87
1971-80	-195.82	0.10 (5.03)	-0.03 (3.25)	0.86
1981-90	153.1	-0.07 (17.56)	-0.02 (18.38)	0.99
1991-01	170.82	-0.08 (1.71)	-0.03 (1.38)	0.29

Note: The regressions are least-squares, semi-logarithmic in prices. The parentheses give the t values.

Taking the 1961-2001 as a whole, there appears to be a fairly robust relationship between the cocoa price and the stock-to-grinding ratio, though there is also a statistically significant long-term declining trend in the price of 2 percent a year. In other words, the stock levels have an impact on cocoa prices in addition to a long-term declining trend. On an average, each percentage point increase in the stock ratio is associated with a price decline of 3 percent. The time trend and the stock ratio together explain some 75 percent of the variation in price over the entire period. This relationship holds well for the first three sub-periods (covering 1961-90 period); in fact, the relationship is even stronger. The highest R² is 99 percent (1981-90), and the lowest, 86 percent (1971-80). The coefficient of the stock ratio is remarkably stable at about 3 percent, whether the decades are taken together or severally. The price trend over these three periods, however, shows wide fluctuation; after a declining

⁶ The table does not include the regressions without the time trend, since those were consistently inferior to the ones with the trend. This is suggestive of the influence of longer-term factors that are influencing the price behaviour.

trend of 4 percent a year during 1961-70, it shoots up to a rising trend of 10 percent a year during the 1970s, only to decline again at a rate of 7 percent a year during the following decade. In short, while the sensitivity of the price with respect to changes in the stock ratio is quite stable, the time trend for captures the impact of factors specific to the period in question.

The 1990s, however, mark a sharp break with the past in that the explanatory power of the two independent variables is greatly diminished. Neither the stock ratio nor the time trend has a coefficient that is significant at 95% level of confidence, though the coefficient for the stocks remain at 0.3. This suggests that the depressed prices of recent years call for an explanation that goes beyond the factors that were seen to be historically important. At the same time, we need to explain the factors that are responsible for the secular decline in cocoa prices, which seems to be independent of the forces of supply and demand. It would be one thing if the decline were due to improvements in overall productive efficiency; quite another, if it resulted from declining real wages and general living standards.

2. The Impact of Neoliberal Policies

The rise of neoliberalism had a profound influence on the functioning of commodity markets, their control within producing countries, and the discussion of the commodity problem itself. International commodity agreements have been all but abandoned; a few those exist, stay away from the so-called “economic clauses”, i.e., clauses relating to control and regulation of production and exports with a view to maintaining or stabilising prices. In countries with state bodies engaged in buying, storing, and selling of commodities, the liberalisation measures focused primarily on their dismantlement. Market liberalisation and deregulation also occurred in the industrial countries, though they have shown remarkable pragmatism in protecting their interests in agriculture as well as in other spheres of economic activity.

Cocoa has not been immune to these developments. Earlier international cocoa agreements relied on buffer stocks for defending cocoa prices within specified bands. The scheme failed to stabilise prices during the 1970s, as there were no stocks that could be unloaded in the market; besides, producers faced with high cocoa prices had lost interest in price stability. In the late 1980s, on the other hand, when the

cocoa price collapsed, the buffer stocks reached rather quickly their prescribed limit of 250,000 (representing roughly six-weeks demand for grindings) without strengthening prices, and the efforts at price stabilisation were abandoned. The last cocoa agreement dropped the provisions for buffer stocks or price ranges.

In order to see how cocoa producers have been affected by market liberalisation, it is necessary to examine the developments both within producing developing countries and in consuming, industrial countries. There has been only scant attention given so far to the impact of the latter on the state of the cocoa market.

Market Liberalisation in producing countries

When discussing the measures to liberalise economies, the focus has basically been on the West African cocoa producers, viz., Côte d'Ivoire, Cameroon, Ghana, and Nigeria, as these were the producers where the state had played a dominant role in cocoa trade. In other respects, the state's role in economic activity or promoting economic development has not been too different from cocoa producers in East Asia or Latin America. The West African governments were not involved in the production and harvesting of cocoa, but concentrated on the purchase of domestic cocoa for export at given prices. In addition, the government institutions responsible for this task – marketing boards in the Anglophone countries (Ghana and Nigeria) and some sort of centralised funds in the Francophone countries (Côte d'Ivoire and Cameroon) – played a role in quality control, research on plant breeding, market intelligence, and extension service.

There were, however, significant differences between the two groups of countries as to how the task of marketing was performed. Typically, the marketing boards managed the entire marketing process, buying cocoa directly from producers and selling it to traders and processors at a specified, guaranteed price at least for the whole cocoa season, if not longer. The *caisse* system, on the other hand, did not involve ownership or direct handling of the crop at any stage, but instead relied on private licensed traders for domestic purchase and export. The authority, however, did guarantee a producer price and established a scale (*barème*) for all payments involved from the farm to export and another scale for the difference between the f.o.b. and c.i.f. prices for main destinations. As a result, depending on the difference between

the world market price and the guaranteed producer price, the fund, in principle, could accumulate reserves or run them down. Another difference was that the state trading authority under the *caisse* system was administratively not a part of the government.

The state marketing institutions were established by the colonial powers with the aim of regulating trade in primary commodities, and they served their purpose more or less satisfactorily during the colonial time. (Williams 1985) However, as in the case of other public bodies in developing countries, their performance after independence deteriorated over time. They became large bureaucracies, influenced by politics, and increasingly inefficient in their designated functions. All this was reflected in the high cost of their operations, which, given the way the system worked, was borne largely by cocoa farmers. Among the major producers, the marketing costs and taxes were found to be lower in the countries relying on free markets (*viz.*, Brazil, Indonesia, Malaysia, and Nigeria) than those with marketing boards or stabilisation funds. (Ruf and de Milly 1990) The francophone institutions actually became insolvent, as they were unable to build up reserves in the face of high costs of operations and low world prices. Their increased reliance on the European Union financing was basically what triggered their dismantlement. The World Bank was another major force behind this move.

The liberalisation programmes aimed to improve productive efficiency through an alignment of domestic prices with world prices and to give cocoa farmers improved prices, which were considered to be low in relation to the *f.o.b.* price. There was, in fact, some contradiction between the two goals in case the increased production from liberalisation lowered the world price, thereby lowering the price the cocoa farmer actually received.

Evaluating the impact of market liberalisation measures presents a number of conceptual and practical difficulties. There are significant differences among the four major producers as to the timing and nature of the measures taken. Nigeria dismantled its marketing boards virtually over night in 1986, largely in response to domestic political pressures. Although it also devalued its currency at about the same time, Nigeria remained otherwise hesitant in deregulating and liberalising other spheres of economic activity.

Ghana, on the other hand, started on a series of economic reforms under the IMF/World Bank-supported structural adjustment programme in the early 1980s. It brought its fiscal situation under control and adjusted its exchange rate, and generally liberalised the economy. After more than a decade of neglect, cocoa production and exports recovered rather quickly as a result. A number of other policy measures were taken in the early 1990s, notably, introducing private sector competition in domestic procurement and transportation and privatising Produce Buying Company, a subsidiary of Ghana's Cocoa Board (COCOBOD). More recently, it started to allow private companies to export directly 30 percent of their domestic purchases. (Varangis and Schreiber 2001) However, the country resisted successfully the pressure to abolish COCOBOD, though it did drastically reduce its work force and generally streamlined its activities in recent years. The government defends COCOBOD for ensuring the quality of Ghanaian cocoa, which enjoys a premium in the world market.

The measures taken in the two Francophone countries – first, Cameroon, and later, Côte d'Ivoire – were more far-reaching. Cameroon started its reforms in 1990, when it abolished its public marketing body, called *Office National de Commercialisation des Produits de Base*, or ONCPB. It also adjusted, among other changes, domestic cocoa price and marketing margins to eliminate the need for subsidies and confined itself to stabilising price only within the crop year. The liberalisation process in Côte d'Ivoire was initiated in the mid-1990s and consisted of increasing competition in the procurement and export of cocoa, improving transparency and accountability of its stabilising fund, Caisse de Stabilisation (CAISTAB), while increasing the returns to farmers. (Varangis and Schreiber 2001) In 1999, CAISTAB was abolished, and in its place a much smaller agency with greatly diminished role was set up.

In short, market liberalisation in some form or fashion has been proceeding in all of the four countries of West Africa, although dates can be identified for specific measures. Also, the kind and extent of policy change differed rather widely across countries. Thus, while Ghana continues to have a marketing board, its overall economic system cannot be regarded as less market-oriented than (say) that of Côte d'Ivoire or Nigeria. Nevertheless, in evaluating the impact of liberalisation, the researchers have focused basically on one factor, i.e., the producer's share in the f.o.b.

price. (See, e.g., Varangis and Schreiber 2001, Gilbert and Varangis 2003). They point out that the countries free of state marketing – Brazil, Cameroon, Indonesia, Malaysia, and Nigeria – had shares of the farmgate price in the export price significantly higher (70-90 percent) than those of Ghana or Côte d'Ivoire (less than 50 percent), which did have state marketing in 1994-95, the year to which the data relate. Furthermore, they show that the abolition of the state marketing authority significantly lowered domestic marketing costs and taxes.

Table 7: Producer prices as % of export unit values

(Period averages)

	<u>Brazil</u>	<u>Cameroon</u>	<u>Côte d'Ivoire</u>	<u>Ghana</u>	<u>Nigeria</u>	<u>Indonesia</u>
1981-85	72.8	55.4	55.1	113.8	120.9	78.9
1986-90	68.6	70.9	59.9	37.3	96.1	74.7
1991-95	78.9	85.7	65.6	48.2	101.2	84.7
1996-00	82.0	62.1	50.5	52.4	89.0	82.6

Source: ICCO and UNCTAD

These two conclusions are actually interrelated since the producers' share in the export price does depend on the marketing costs and taxes. Indeed, the data in Gilbert and Varangis (2003) show that the observed differences in the producers' share was largely due to the much higher implicit or explicit taxes in Ghana and Côte d'Ivoire; the marketing costs proper differed little across the countries covered (Figure 4 in their paper). However, to the extent the state institutions provided public services (such as, quality control and extension service), the reduction in taxes may not have been an entirely positive development. Indeed, there has been a concern over the deterioration in the quality of cocoa exported by Cameroon and Nigeria following the liberalisation. But the most serious weakness of the conclusion that the producer's share has improved following liberalisation is that it rests on a point estimate, i.e., it focuses on just one year. Given that export prices are highly unstable, the producer's share in any one year may not provide a reliable guide to the actual situation. To remedy this weakness, Table 7 provides the data on the producer's share in the export price averaged over 5-year segments, covering a longer period of time.

In both Indonesia and Brazil, where there is no state trading, the producer share in the export price is indeed generally higher, though shows considerable variation over time. The extraordinary high shares in Nigeria and Ghana during the 1981-85 period are questionable; the cause was probably their grossly overvalued

currencies. One thing, however, seems clear that the abolition of the marketing board in Nigeria did not have an unambiguous impact on the share. In the case of Cameroon, the share was already on the high side just prior to liberalisation, but declined to 62 percent during the 1996-2000 period. Côte d'Ivoire embarked on market reforms only towards the end of the 1990s, but it too shows that there was an actual decline in the share, when compared to previous periods.

In short, the above data do not provide any robust conclusion as to the benefits for cocoa farmers of market liberalisation. The liberalisation process seems to follow a set pattern. During the first year or so, a number of private companies enter the cocoa trade, which temporarily pushes up producer prices. But this phase is followed by a period of consolidation and restructuring when the outcome for the producer depends on a host of other factors. (Fold 2001) In any case, the cocoa farmers are not concerned about their share as such but the actual price they obtain and how it relates to their production costs, which vary considerably across countries. .

Table 8: Estimates of Costs of Production in Major Cocoa Producers

	Production costs \$/kg		Producer price	Export price	Cost: prod.price ratio %	Cost: export price ratio %
	1989	1995-99				
	-----1995-99-----					
Brazil	1.00	1.62	1.18	1.44	137	112
Cameroon	0.83	0.60	0.82	1.34	73	45
Côte d'Ivoire	0.66	0.60	0.68	1.36	87	44
Ghana	0.48	1.27	0.78	1.48	163	86
Indonesia	0.60	0.36	1.17	1.14	30	31
Malaysia	1.00	0.85	1.20	1.20	71	71
Nigeria	0.50	2.16	0.92	1.34	235	161

Source: See the appendix to this paper

The estimates of production costs are given in Table 8 and relate to the average for the period 1995-99, which helps to even out yearly variations. They have been derived taking into account three factors: (i) the estimates of costs for producing one kilogram of cocoa beans in 1989, provided by an ICCO study (Ruf and de Milly 1990); (ii) an adjustment for the improvements in yields between 1989 and 1995-99, taking it as an approximation for productivity improvements across countries (derived

from the FAO database); and (iii) an allowance for the effects of domestic inflation and exchange rate changes during the period in question on the basis of the IMF data. The resulting estimates do not take into account the costs of replanting and new planting (they, therefore, relate only to the variable costs) and are at best a rough approximation.

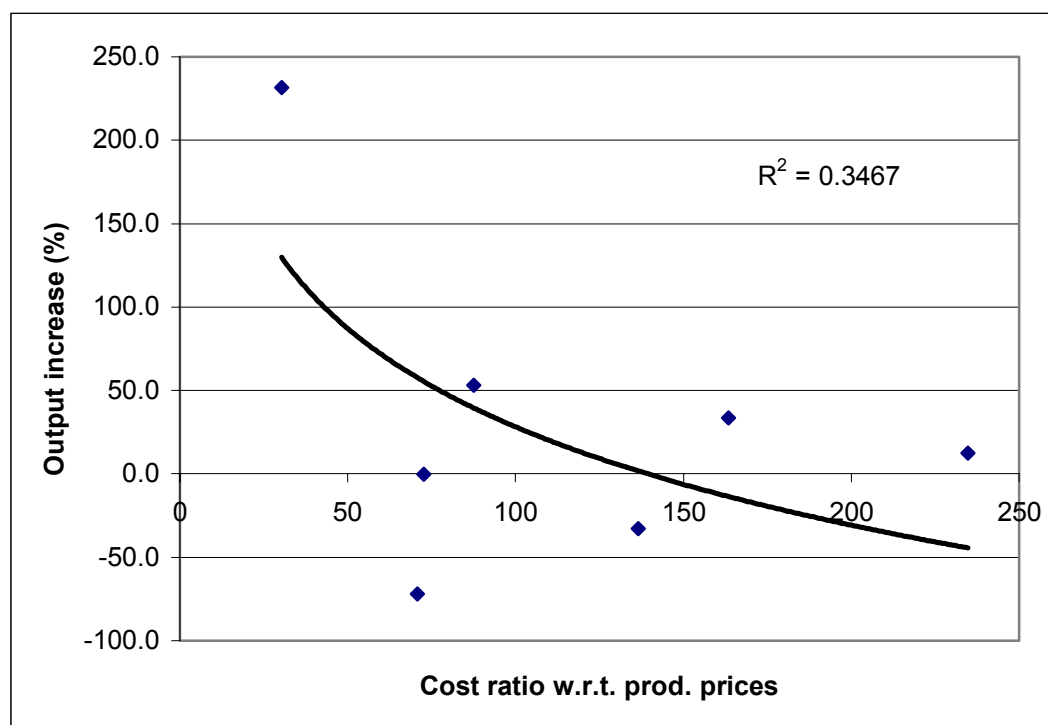
Indonesia's production cost is the most striking, which, at 36 US cents a kilogram, is far and away the lowest. Though its yields improved greatly during the 1990s (Table 2), the catastrophic decline in the rupiah exchange rate consequent to the Asian financial crisis of 1997 was also a major factor. On the other hand, the estimates for Ghana and Nigeria are on the high side, probably for the opposite reasons: domestic inflation was not adequately compensated by an adjustment in the exchange rate, though both also suffered large declines in yields. Despite the weaknesses of the estimates, it is probably safe to say that Brazil and Nigeria have now become the highest cost producers, though their reasons are different. In Brazil, the major cause for the rise in cost was the deterioration in yields due to the outbreak of a plant disease. In Nigeria, the neglect and general mismanagement are the main factors: cocoa production is not a priority sector in that country and there has been considerable migration of young working-age population out of cocoa areas.

Overall, the variations in yields across countries appear to be the most important factor in production costs. There is no indication that the market liberalisation had much impact in that respect. There is also no systematic evidence that the cocoa growers in countries without state marketing enjoyed a higher financial surplus. On the face of it, Brazil, Ghana, and Nigeria operated on a loss, though in Ghana's case, costs were lower than the export price by a significant margin. The ratio of production cost to producer's price was roughly similar for Cameroon, Côte d'Ivoire, and Malaysia. In any case, Côte d'Ivoire had not abolished its marketing authority until 1999, which is the end of the period covered.

Finally, although there are only seven observations, there appears to be a weak correlation between a country's cost to producer price ratio and the expansion of its output over the 1989-99 period, i.e., the country with a larger surplus over costs tended to show a larger increase in its output. (Chart 3) The country with the largest output increase, Indonesia, was also the one with the lowest production costs. The

next biggest increase in output occurred in Côte d'Ivoire, which amounted to more than 50 percent over the period with a cost:price ratio of 87 percent.

Chart 3: Cost-producer price ratio and production expansion



Structural Changes in the World Cocoa Market

Dismantlement of government regulations and market liberalism were not confined to the cocoa producing countries. There occurred over time significant changes also in the industrialised countries – the main consumers of cocoa -- that had a profound impact on the structure of the market and price formation. The recent behaviour of international cocoa prices, which seems to break with the historical trends, can be explained to a large extent by these developments. The change in the market structure had in particular two consequences for the formation of cocoa prices: (i) there was an evident decline in the level of cocoa stocks needed to carry on the processing and chocolate manufacturing activities in the European countries (the principal market), but also elsewhere; and (ii) the world market price appears to have become rather less sensitive to the forces of supply and demand.

There have been four developments that have had a significant influence on the functioning of the cocoa market in recent years, even though they evolved over a longer period of time. First, a few large transnational corporations have now come to dominate the cocoa trade (as in other commodities), having taken over, replaced, or merged with the other smaller companies engaged in trading physical cocoa. This development has benefited from the dramatic improvements in communications, which enable individual companies to develop efficient market intelligence and facilitate the management of large-scale transnational operations.

Secondly, the old distinction between trading and processing companies has become blurred, as most large trading companies are now also engaged in cocoa processing, sourcing beans directly from exporting countries to take advantage of the scale economies in transport, storage, and processing. This occurred because the large chocolate manufacturers decided to hive off the less profitable processing of cocoa into intermediate products (cocoa liquor, cocoa butter, and cocoa powder) from their core activities. However, at the high-end, chocolate manufacturers continue to do their own processing for ensuring good quality. By the mid-1990s, some 70 percent of all grindings was done by the top 10 firms, with the three largest cocoa-processing companies – Archer-Daniels-Midland (ADM), Barry Callebaut, and Cargill – dominating the market. They account for some 40-50 percent of world grindings at present, and are expected to reach the 75 percent mark within a few years. (Fold 2001)

The third development is linked to the second development. With the disappearance of the state-dominated marketing structures in cocoa producing countries, large transnational companies have taken over to a considerable extent also the exporting functions in the producing countries. According to a recent ICCO report (ICCO 2001), some 90 percent of cocoa exports from Côte d'Ivoire are now handled by companies that are subsidiaries or have close links with the international companies engaged in cocoa trade. Similarly, in Sulawesi – the cocoa producing area of Indonesia – there were some 60 national traders engaged in cocoa exports as recently as 1998; by the year 2000, only two were left, the rest having been taken over by foreign companies. (Humphrey 2001) This process of corporate integration and concentration has also been driven by changes in transportation that have resulted in

economies of scale. Cocoa is no longer being shipped in bags, but in large containers directly to end-users, which has considerably reduced handling costs at both ends of the shipment.

Finally, there has been increased concentration in the chocolate manufacturing industry, which is itself a result of globalisation and increased importance of brand recognition and marketing strategies. Following some 200 takeovers in the chocolate industry during 1970-90 period, only 17 firms have come to control about half of the world market in chocolate, with five firms – Nestlé, Mars, Hershey, Kraft-Jacob-Suchard, and Cadbury-Schweppes – enjoying a dominating position (Fold 2001). According to the same ICCO study, “The process has involved takeovers of smaller companies by the large international concerns, mergers to form larger combined entities and incursion of the international companies into new or developing markets”. (p. 7) This mirrors the developments on the retail side, where large supermarkets have turned into basically renters of shelf space.

The overall result of these developments has been that cocoa producers face a monopsony situation on the sale side (i.e., there are only a few buyers that they can sell to), which may be regarded as an improvement over a situation where they had to sell to a state monopoly. On the retail side of the finished product consumers face pretty close to a monopoly situation. The consequence of the increased concentration along the supply chain – trade, processing, and manufacture of chocolate – is that the procurement and provision of intermediate products is not governed wholly by “arm’s length” arrangements, but by long-term inter-corporate contracts and understandings. Apart from the issue of the principal beneficiaries from these developments (which is taken up in the next section), they have implications for both the need for carrying stocks and price formation.

There have been two parallel developments that have reduced the need for stocks. One, as there are now much fewer firms at each level of the activity, the need for stocks to carry on normal business activity has considerably declined. This results from the fact that, in relation to their turnover, larger firms tend to carry stocks at a lower level than do smaller firms. At the same time, traders and processors now face a relatively stable and reliable demand from their partners and associates in business, which also reduces the level of stocks to be held. The second development is of a

technological nature. As in other manufacturing activity, chocolate manufacturers have started to rely on modern management techniques and practices to reduce their costs, in particular, the adoption of the just-in-time inventory management practice, where supplies of inputs are obtained as required in manufacturing. Within Europe, the biggest market for chocolate, a handful of processors, mostly based in the Netherlands, have delivery vehicles working virtually round-the-clock, responding to the demand from the manufacturers.

The decline in the requirements for stocks by itself could be an adequate explanation for the generally depressed prices in recent years. Throughout the 1990s, the stocks-to-grinding ratio remained in excess of 55 percent, compared to the average of roughly 40 percent for the four decades, 1961-2001. The ratio declined during the 1995-99, but it did not fall much below 50 percent. Thus, there appear to be two factors at play in keeping the cocoa price low: the stocks have been at historically a very high level in recent years, while the *need* for stocks for carrying on business has also declined quite substantially. The result is that there is a large overhang of unwanted stocks that has continued to keep cocoa prices depressed.

The question then arises as to why the stock levels have not been adjusted downwards, which is to say why cocoa supplies have persistently outstripped demand, despite low prices. There was certainly some influence on the output, in that it has remained more or less stagnant at about 2.8 million tons since 1995. The key is the behaviour of individual producers, which has been sharply dissimilar. Overall, production from the seven major cocoa producers rose by less than 15 percent between 1990 and 2000. However, two countries dominated the expansion: Côte d'Ivoire and the low-cost Indonesia together accounted for virtually the entire increase (63 percent and 35 percent, respectively), while the relatively modest increases in Ghana and Nigeria just about offset the declines in Brazil and Malaysia.⁷ It was seen earlier (Table 8) that, despite low world prices, the production costs in Indonesia particularly but also in Côte d'Ivoire allowed producers a significant margin.

⁷ This would appear to dispose of the hypothesis in Gilbert and Varangis (2003) that the market liberalisation caused cocoa production to increase and depress prices. Leaving aside Indonesia, the production increase occurred mostly in countries that did not liberalise.

In short, there continued to be producers who were willing to supply cocoa at the low price. The increased productivity could partly be the reason, but, as seen earlier, rising yields and improved productivity did not occur everywhere in the cocoa producing areas. A major reason must have been that smallholder farmers accepted a sharp decline in their incomes rather than moving out of cocoa production. In some countries, the undervalued exchange rates and depressed wages helped the process. There is, however, very little information on wages and incomes earned by cocoa growers. According to one study for Côte d'Ivoire (Bonjean and Chambas 2001), there is evidence of increasing poverty and declining incomes in cocoa producing areas.

Before concluding this section, it is necessary to consider one other factor that has sometimes been held responsible for falling cocoa prices. This relates to the role of the so-called terminal market, i.e., the market for commodity futures. Since producers now rely on private traders rather than state authorities, the bulk of cocoa sales have shifted from the forward market to the spot market. The result is that physical sales activity is concentrated only in a few months. The state marketing authorities used to rely on forward contracts so that they could offer a guaranteed price to local producers. However, this development might have increased the volatility within the crop year rather than pushing down the longer-term prices. Similarly, the dramatic rise in options trading and the emergence of commodity funds may (or may not) have increased price volatility, but are unlikely to have affected the market fundamentals.

3. Revisiting the Generic Issues

Cocoa is a representative commodity: its world market price is highly volatile and has been on a declining trend, and the producers do not appear to have benefited from the technological and other productivity enhancing improvements, whether in their own countries or along the value chain. These have been perennial problems, but the neoliberal policies were not aimed at dealing with them. Some proponents of neoliberalism felt that the commodity problem could not or should not be addressed, as it was a market outcome, while others believed that freely functioning markets would somehow tackle them. The search for solutions has now become more difficult, for it must be carried out in an environment where there is widespread suspicion of public action and institutions. In particular, there is little support today

for a revival of international commodity agreements or reestablishment of state marketing authorities. Nevertheless, an attempt is made here to revisit the generic issues from a perspective that is generally lacking today.

Price Instability

In dealing with the issue of volatile markets, the measures designed to stabilise producers' income should be distinguished from the issue of price stability. The STABEX is a well-known example of a scheme designed to provide export earnings stability to a number of African, Caribbean, and Pacific (ACP) countries under the various Lomé Conventions on EU-ACP cooperation. The IMF's Compensatory Financing Scheme (CFS) was also designed to help producer countries facing adverse developments in their export markets, except that it provided short-term financing, not aid. Neither of the two schemes is currently operative. STABEX was abandoned when the last Lomé Convention was negotiated, although some thought is now being given to its revival. The main reason why the CFS has remained virtually dormant over the years is that the financing under the scheme is contingent on the country concerned being able to satisfy the IMF as to the temporary nature of the price fall, a condition that primary producers have found difficult to fulfil. Funds are not available if the price fall is seen part of a secular trend.

With respect to price stability, a distinction can be drawn between measures that aim to stabilise producer prices within producing countries, as was attempted by the state marketing authorities, and measures that stabilise world market prices, as was intended under the early International Cocoa Agreements. At the national level, the goal of price stability can be either short-term, i.e., confined to stabilising intra-year prices, or longer term, covering a few years.

Along with the abolition of the state marketing authorities, the effort at stabilising producer prices was also abandoned. As a result, there is evidence of increased price instability. It was earlier noted (Table 4) that the export prices during the 1990s had become more volatile in Cameroon (without the state marketing authority), while Ghana experienced the opposite. Gilbert and Varangis (2003) show that the producer prices, following market liberalisation, became considerably more

volatile in Cameroon, Côte d'Ivoire, and Nigeria, though not in Ghana, the only country that still keeps its marketing board.

The only recent initiative to address the continuing problem of price instability has come from a few experts in the World Bank and UNCTAD (though so far without institutional endorsement), promoting the idea of “market-based risk management” instruments. Insofar as hedging instruments are concerned, there is nothing new in the proposal, as traders have for a long time been hedging themselves against price uncertainty through the futures market. Traders with physical stocks of a commodity routinely protect themselves against price decline, by selling futures contracts. Thus, if the price actually declines, they can recover the loss by buying back futures contract; the opposite occurs if the price rises. In short, the trader’s gains or losses in the physical market are offset through losses or gains in the futures market.

Where however the new proposals differ is in tapping the interest in options trading on the part of large commodity funds. Options trading can be a more attractive instrument against uncertainty than straightforward hedges, for they enable traders with stocks to protect themselves against a price fall without forgoing the possibility of taking advantage of a rising market. This is done by buying a put option, giving the trader the right to sell the product at a specified price, which is exercised if the price declines. The payoff on the bet turning out favourable can be quite considerable, unlike the ordinary hedge which basically offsets gains or losses. But several things need to be considered. First, the use of options and hedges as protection against price uncertainty, like any insurance, has a cost, which is directly proportional to the risks involved. The cost of options, as indeed of ordinary hedges, tends to rise both with the length of time covered and with the market’s volatility. These instruments are therefore useful only for covering a relatively short period of time (around three months), without the cost becoming prohibitive. To state the obvious, these instruments, like conventional hedges, simply offer protection against price uncertainty; they do not deal with the volatility itself.

Secondly, options are a particularly risky instrument if they end up being used as bets on the market behaviour, i.e., the risk of a hedger turning into a speculator. Options trading is notorious for its vulnerability to irregularities of all kinds. There have been many instances where the institution engaged in options trading has been

rendered bankrupt through actions of a lone trader. (UNCTAD 2003 provides a useful list of avenues for fraud in trading.) In short, adequate regulation and supervision of options trading as well as high personal integrity of professionals engaged in trading would be crucial if the farmers are to be protected against mismanagement or fraud. These are governance requirements that seem to go beyond the skills required to successfully manage a state marketing authority.

Finally, individual cocoa farmers do not have sufficient means, size, or the expertise to purchase hedging instruments. The promoters of the idea do recognise this problem, but some believe that, in the absence of a state authority, the problem could be overcome by local institutions, notably, farmers' cooperatives. Cooperatives enjoy an appeal for a variety of reasons, but there are few examples in developing countries of success. A major problem is with respect to their being established. Ideally, they should arise out of some grass-roots movement, but it seems unlikely that options trading would be high on the movement's list of priorities. On the other hand, state sponsored cooperatives have their own problems, most serious being the question of ownership. In any case, there is still no assurance that the cooperative would be of a size, financial strength, and capability to manage options trading. All in all, the chances of a cooperative movement in any of the West African cocoa producing countries becoming a force capable of marshalling the needed expertise and resources appear rather slim.

Nevertheless, hedges and options do have a place in commodity trade. Since there is now recognition that the abolition of state marketing authorities created an institutional vacuum, there is a place for streamlined quasi-state bodies that are independent of the government but are answerable to it for their performance. They are required in order to undertake some of the neglected tasks, such as quality control, handling of storage and transportation, and research and extension service. There is also a need to take advantage of buyers' need for insurance against price instability, which should result in sharing, if not complete elimination, of the cost of a hedge. Provided there is adequate oversight and regulation, these bodies could be allowed to use hedging instruments to facilitate their management of stocks and trading activities. The financial performance of the old marketing authorities could conceivably have been improved with greater, but judicious, use of such instruments.

With respect to stabilising world prices, it seems unlikely that a mechanism would emerge in the foreseeable future. The memory of the past cocoa agreements' failure at price stability is too fresh and the industrial countries have no interest in a mechanism to stabilise prices. As Gilbert (1996) put it: "The commodity agreement movement is effectively dead".⁸ (p.1)

The International Cocoa Agreements suffered from problems common to other commodity agreements. The earlier agreements, as noted earlier, relied on buffer stocks to keep the price within specified ranges, but there were no stocks that could be released to arrest the steep price rise of the 1970s while the situation was just the opposite when the stipulated stock level was insufficient to prevent cocoa prices from falling. A lack of adequate financing was a related factor that stymied the market operations under the third agreement that came into operation in 1981. The matters were not helped by the fact that the largest cocoa producer – Côte d'Ivoire – did not join the first three agreements, nor did a major consumer, the United States.

Possibilities for Price Maintenance

Price stabilisation and maintenance are closely related issues, for they both turn fundamentally on producers' ability to regulate their supplies. While an *international* agreement might be unrealistic at this stage, the prospects of regulating cocoa supplies by the cocoa producers on their own seem promising, even though there are serious difficulties to overcome. In fact, the fifth International Cocoa Agreement contains a provision for producers to organise production curtailment arrangements to overcome market imbalances. The relevant clause in the Agreement states (quoted in Gilbert 1995):

"In order to deal with the problem of market imbalances in the medium and long term, and in particular the problem of structural overproduction, the exporting Members undertake to abide by a production-management designed to achieve a lasting equilibrium between world production and consumption.

⁸ Although the movement may be dead, this author at least believes that it is not buried. For one thing, the international commodity agreements were far from being a total failure. In virtually each case, the commodity agreement failed for specific but different reasons. Secondly, the commodity agreements never enjoyed the wholehearted support of the consumers for rather narrow, self-interest reasons. And, finally, a comprehensive approach to the commodity problem, covering all major commodities – as envisaged by Keynes or in UNCTAD's Integrated Program – was never tried.

The plan shall be drawn up by the producing countries in a Production Committee set up for this purpose by the Council."

It is well recognized that primary products suffer from long periods when price remains below long run costs, which causes severe hardship to producers and difficulties for the government. When faced with similar problems, the industrial countries, even under strong neoliberal leadership, have shown a remarkable degree of pragmatism, offering protection as well as financial aid to agriculture or ailing industry, justifying it on grounds of hardship to some domestic group or unfairness of other countries' actions. Primary producing countries can take a leaf from this experience: if arrangements to regulate production or exports are not possible under an international agreement, producers could come together with the aim of improving on their own the markets for their products. Such cooperation is also needed for strengthening their bargaining position vis-à-vis transnational corporations engaged in trade in commodities in question.

There have been a number of past attempts at producers' alliance, most well known being the OPEC (the Organisation of Petroleum Exporting Countries). Others have included coffee, tin, and natural rubber. A cartel-like action was also tried in aluminium, a manufactured product, in the early 1990s, to withstand the threat of supplies from the former Soviet Union disrupting the market. The experience of these alliances indicates that, for their success, there are at least two prior conditions that must be fulfilled or at least substantially fulfilled. The first condition is that all major producers share a common interest and vision in controlling production or exports so that a collective action has sufficient support. The problem arises because the costs of the action are borne by the alliance members (i.e., withholding production or exports), but the benefits are shared by all producers. This problem of free ride can more easily be tackled if there are only a few producers of the commodity in question.

Secondly, a price level completely divorced from market forces can only be maintained for a very limited period of time. The bigger the difference between the price that the alliance members want and the free market price, the more difficult it becomes to maintain the target price. The payoff on cheating is directly proportional to this difference and under pressure an alliance risks its break down. There is also

the consideration that higher the target price, more likely would it be for non-alliance sources of supplies to emerge.

Cocoa appears to be an ideal candidate as far as the first condition is concerned: the number of major producers is very small and there is a common view that some degree of supply regulation is needed. As seen earlier, seven producers account for virtually the entire world output of cocoa. Three – Côte d'Ivoire, Ghana, and Indonesia – account for close to three-fourths of the world production. Côte d'Ivoire is far and away the biggest producer and could enjoy the status of a “swing voter”, rather similar to the status of Saudi Arabia in the OPEC. This means that its vote could be decisive in situations where other producers are divided on a particular issue. (Gilbert and Smit 2003)

Four of the largest producers are in the same region and geographically more or less contiguous, which should make monitoring of production and exports somewhat easier. At the same time, two producers – Brazil and Malaysia – appear to have lost interest in cocoa. Cocoa is expensive to produce in these countries and is not particularly vital to their economic interests. Since basically large estates are involved, the switchover to alternative opportunities is easier.

Thus, if the three big producers – Côte d'Ivoire, Indonesia, and Ghana – were to agree on a scheme to regulate production and/or exports, it should not be too difficult to get the other two producers, Cameroon and Nigeria, on board. As far as Nigeria is concerned, it has neither the available land nor a particularly favourable environment for cocoa production. (Ruf and de Milly 1990) At any rate, cocoa is only of minor importance to that country, accounting for less than 1 percent of its total exports. Cameroon, on the other hand, has both land and suitable environment, and cocoa remains a major export, close to 15 percent of its export earnings. However, being a relatively small producer, it poses little threat to the big three and its needs or interests should not be too difficult to accommodate.

There remains, however, the possibility of new comers, as happened in the case of coffee, who could free ride the market. This cannot be ruled out but this threat may not be exaggerated. With a depressed world market, cocoa is not a particularly attractive crop for newcomers, considering that it takes several years before the

investment starts to pay. The important thing is that the producers respect the second condition mentioned above, i.e., they should aim at a price that can realistically be maintained and defended. In any case, production or export regulating mechanisms cannot be expected to last indefinitely; periodic revisions of the maintained price are necessary if market forces are not to overwhelm the situation.

In short, the possibility of a producers' alliance turns essentially on the three largest cocoa producers. They do at present have internal political problems to deal with, while also needing improvements in their respective cocoa sectors (particularly, in Ghana, but also Côte d'Ivoire), but agreeing on each other's share in the world market need not be an insurmountable problem. A common position among key producers could also strengthen their bargaining position vis-à-vis the transnational corporations that they must deal with.

Cocoa Producers and the Value chain

As the commodity moves from the farmgate to the port for export and then on to the final consumer, it goes through both a process of handling (i.e., grading of output, packaging, domestic transport, paperwork, trade finance, etc.) and actual physical processing, which consists at the earliest stage (usually carried out by the grower himself) of drying the fruit and preparing the beans, and later of producing the finished product, usually in the form of chocolate, in the case of cocoa. Talbot (2002) provides a stylised sketch of the value chain for cocoa as follows:

cocoa pods → “rest” → ‘remove seeds’ → ferment → dry → cocoa beans → roast → shell → cocoa nibs → grind → chocolate liquor → press → cocoa butter and powder → chocolate (along with the input of sugar and milk).

Basically, the commodity moves from the grower to a collector or a village-level trader after having been dried and fermented. The commodity is then acquired by a national trader, which could be a state marketing authority, who does the grading and quality control before its being exported. In some cases – but only to a very small extent in West Africa and Indonesia – cocoa beans are processed into intermediate products (cocoa liquor, butter, or powder) for export. The product is then either taken over by an international trader or processor, who typically has long-term

arrangements with established large chocolate confectioners, or gets traded in the world commodity market. It is then the chocolate manufacturer who arranges the retailing of the finished product. Cocoa generally constitutes less than 10 percent of the cost of manufactured chocolate.

The question then arises, how various steps along the value chain are controlled and coordinated, especially when the crossing of national boundaries is involved. In particular, the question arises as to how improvements in productive efficiency get shared between producers of primary products in developing countries and final consumers in industrial countries, a question originally raised by Prebisch (1950?). In the case of cocoa, as for some other primary products, producers have certainly been hit hard by the depressed cocoa prices, but there is little indication of the softening of the market for chocolate. This means, among other things, that cocoa producers have not enjoyed the benefit of increased demand if the price of the finished product had also declined.⁹ (Morisset 1997) Thus, from the perspective of economic advancement, the distribution of value added between primary producing, developing countries and the consuming, industrial countries is no less an important issue than the level and instability of the price.

The distribution of value added and the appropriation of profit at each stage of the chain depend on the market structure, the rules governing commercial transactions, and the corporate relationships that develop at each level. In the case of agricultural commodities, in addition, the ecology, specific processing requirements (including phytosanitary considerations), and the ease of mechanisation, storability, and transport all play a role in structuring transnational commercial relationships. (Talbot 2002) If atomistic competition prevailed (i.e., all sellers and buyers were so small that they could not individually influence the market price) and if the bargaining power was not dependent on the economic status of agents, it could be argued that the market would settle more or less satisfactorily the question of who gets what at different stages. However, in the case of primary commodities, that is far from being

⁹ The concern with distribution recently assumed prominence in the case of coffee, where questions began to be raised on the rationale for the vast difference in the price that a farmer gets and the price a consumer pays for a cup of coffee in the industrialised countries.

the case, and is one reason why globalisation and market liberalisation are viewed with suspicion by groups who are supposed to benefit from them.

Smallholder cocoa farmers must sell what they produce at pretty much the price they can get. They depend on village traders for temporary finance, and there are usually no more than one or two traders that they can go to. As the product moves to the port for export, it goes through various handlers, none of which operates in a competitive environment. In the past, the state marketing authority enjoyed a monopsonist's position; today, the situation with respect to reward sharing between local agents and overseas monopolies has become quite opaque. As the intermediate product moves to its final destination in the consuming countries, the market structure is characterised by high corporate concentration. All in all, only a fraction of world cocoa supplies actually gets traded in the world market; an undetermined but large portion is not traded on the basis of arm's length arrangements.

In short, the cocoa value chain is held to be “buyer-driven”, i.e., it is the buyer – the international trader, typically a transnational – who decides where to purchase and process the raw material. (Raikes, Friis, and Ponte 2000; Talbot 2002) A number of factors have contributed to keeping cocoa producers' control rather limited in the value chain. A major factor in increased dependence on foreign companies has been the general deterioration of infrastructure (rural roads, seaport facilities) and the disappearance of local capabilities in marketing and quality control with the abolition of state marketing authorities. This situation is in sharp contrast to the colonial times, when the colonial powers invested large resources into building the local infrastructure as well as state institutions only to further their trade interests. (Fold 2001)

Table 9: Import Duties on Cocoa in Main Markets

	<u>EU</u>	<u>USA</u>	<u>Japan</u>
Raw cocoa	0.5	0	0
Intermediate products	9.7	0.2	7
Final products	30.6	15.3	21.7

Source: UNCTAD 2003

The evident unfavourable economics of producing intermediate products has been another factor that has kept cocoa producers at the low end of the value chain.

The process is highly capital and energy intensive, while the intermediate products do not enjoy an advantage in transport over cocoa beans. (ITC 2001) Given these handicaps, the progressively high duties on processed products in the industrial countries (Table 9) would seem to be unnecessary, but they certainly make a bad situation worse. Certainly, the productivity-improving developments in the industrial countries have not proved to be favourable to giving cocoa producers a better share in the value chain. For example, a supplier in a cocoa producing countries is just not able to supply the intermediate products on a just-in-time basis to a chocolate manufacturer in Europe, even if all other handicaps were somehow overcome.

There are nevertheless a few examples of leading chocolate manufacturers investing in processing capacity in a developing country, especially in the processing of organic chocolate. In response to the pressure from civil society, transnational corporations have started to show interest in “fair trade” (i.e., ensuring that cocoa is produced where environmental and labour standards are respected) and signed a protocol at the ILO against child labour in cocoa production, even though there is little evidence that the problem is serious or widespread. Although these developments may be deemed desirable from some perspective, they are likely to help, if at all, only a small minority of cocoa producers. The danger is that, apart from diverting attention from issues of immediate concern, the pursuit of fair trade would result in unfair trade for the majority of producers.

The conclusion from all these qualifications, however, is not that the cocoa producers cannot improve their status in value chain. After all, two cocoa producers – Brazil and Malaysia – have built up considerable domestic processing capacity and import cocoa beans from other producers for processing purposes. This happened, not as a result of the freely functioning market, but through active government support and direction at an early stage. Apart from government backing and the availability of local enterprise, processing is encouraged if there is an existing domestic demand for chocolate. However, Malaysia developed processing capacity even in the absence of the last condition. Although other cocoa producers do have some processing capacity, they are at least for present handicapped for reasons given above, and the examples of Brazil and Malaysia may not be replicable. For them, an improvement in their position in the value chain could be realised through a careful regulation of

production and exports to the world market as well as better quality control and investment in infrastructure.

4. Conclusion

The real fault with the neoliberal policy prescriptions lies in the fact that they failed to target the fundamental problems of concern to the cocoa producing countries. The problems they did address – improving productive efficiency and producers' share in the price – while important were not the ones that preoccupied most cocoa producers. However, a more serious consequence of neoliberalism seems to have been the creation of an intellectual environment of do-nothing, laissez-faire. Under this, any search for solutions to unstable and low primary goods prices is dismissed as a waste of time. As such, the most important step to be taken to bring commodities back on the trade-finance-development agenda is to challenge this mindset and open up the debate to a freer exchange of ideas. Application of free market principles may very well be useful here.

Even within their limited, stated goals, the market liberalisation measures do not appear to have been a resounding success. There is little evidence that they helped to improve productive efficiency in cocoa producing areas. Such increase in yields as occurred in Cameroon and Côte d'Ivoire resulted from investments made before the measures were adopted. In Nigeria's case, there was an actual deterioration. Little attention was given to investments in infrastructure and delivery systems that would have had a greater impact on raising productive efficiency. Improving cocoa growers' share in the export price was indeed a worthy goal, but here too the results were mixed. In any case, the producer's share on its own provides little indication on the benefits for the cocoa grower, but little interest was shown in examining this matter in relation to production costs and the market price.

However, while they did not quite achieve their stated objectives, the market liberalisation measures do not appear to have done much harm either, at least as far as cocoa is concerned. There is no evidence that these measures increased price instability; equally, it would be wrong to credit them with the evident reduction in the price instability. The prices were more stable simply because they had come closest to the bottom. Nor can the market liberalisation be held responsible for the depressed

prices, but only if this paper's conclusion that the recent output increase had little to do with those measures is held to be valid.

There is little question that the state marketing authorities suffered from serious problems, some of which were aggravated by the depressed cocoa prices as well as a poor macroeconomic environment in the producing countries. But it now seems doubtful that the remedy lay in abolishing them altogether. The counsellors of liberalisation gave little consideration to revamping the state institutions before deciding on their dismantlement. Though far from perfect, Ghana's Cocoa Board offers an example of the kind of improvements that can indeed be made.

The need for a public body to assure cocoa quality and provide other public goods (market intelligence, research, and extension) is now being widely appreciated. There is also the consideration of regulating cocoa output to arrest the continuing decline in prices. If there is to be a producers' alliance, a public agency that can control exports, manage stocks, and regulate production would be a *sine qua non*. Then, too, there is the question of improving the position of cocoa producers in the value chain, where state action and promotion would be vital.

Finally, this paper dismissed the possibility of a future international cocoa agreement that would include clauses to stabilise and maintain prices. Notwithstanding the inherent difficulties in managing price bands and buffer stocks, we do not believe that there would be any support for such a scheme in the industrial countries for the foreseeable future. But this should not stop the producers from exploring ways of managing the cocoa market on their own. The prospects for a producers' alliance in cocoa appear at least as good as in natural rubber or coffee, though there remain other difficult issues to address.

Appendix: Derivation of Cocoa Costs of Production**Estimates of Costs of Production in Major Cocoa Producers**

	Production Cost US\$/kg(1)	% change in yield/ha	Production Cost 1989 prices	Adjustment for inflation(2)	Production Cost current price	Producer Price US\$/kg	Cost as % of prod. Price	Export Unit Value US\$/kg	Cost as % of unit value	% increase in output 1989-98
	1989		Average 1995-99							
Brazil	1.00	-38.1	1.62	na(3)	1.62	1.18	137	1.44	112	-32.8
Cameroon	0.83	14.8	0.72	0.83	0.60	0.82	73	1.34	45	-0.2
Côte d'Ivoire	0.66	5.1	0.63	0.95	0.60	0.68	87	1.36	44	53.3
Ghana	0.48	-31.2	0.70	1.82	1.27	0.78	163	1.48	86	33.7
Indonesia	0.60	31.4	0.46	0.78	0.36	1.17	30	1.14	31	231.6
Malaysia	1.00	19.0	0.84	1.01	0.85	1.20	71	1.20	71	-72.7
Nigeria	0.50	-10.3	0.56	3.87	2.16	0.92	235	1.34	161	12.4

(1) The source for these data is Ruf and de Milly (1990)

(2) This adjustment allows for the effect of inflation and exchange rate changes during the period.

(3) For Brazil, the data on inflation and exchange rate changes are not available for the period covered.

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