

A general picture of the world commodity economy

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Trends in prices, product content, trade geography and market structure of agricultural commodities provide food for thought about parallels with trade in forest products.

To what extent are forest products analogous to other commodities in international trade? This article briefly discusses the recent situation of the world commodity economy. It focuses first on commodity prices and then examines non-price issues, including the changing product content of international commodity trade, the emerging new trade geography and commodity market structures. Throughout the discussion, some areas are highlighted where timber does and does not follow the trends.

COMMODITY PRICES

Trends

Table 1 gives price indices for main commodity groups and timber over the past four decades. Price indices in Special Drawing Rights (SDRs) (a unit of account whose value is based on a selection of key international currencies) eliminate some of the influence of variations in the exchange rate of the United States dollar, in which most prices are expressed. Real prices provide an indication of the amount of manufactures that could be purchased by a

given quantity of exported commodities. (As the product mix and quality of manufactures purchased by commodity exporters change over time, these calculations should be considered only as roughly indicative.)

Real commodity prices generally exhibit a long-term downward trend and high instability. Naturally, the situation varies among individual products, and any inference about price levels depends on the period considered. Moreover, because of fluctuations in prices and output, both rural households and governments experience large variations in earnings.

In terms of SDRs and in real terms, all agricultural product groups currently face a historically adverse price situation. The tropical beverages group, which includes coffee, cocoa and tea, fares the worst. The vegetable oilseeds and oils group, which ten years ago faced a critical price situation comparable to that of tropical beverages, has recovered some of its losses in prices. Mineral ores and metals currently experience fairly high real prices compared with ten years ago.

TABLE 1. Commodity prices, 1964–2004 (annual indices of monthly averages, 1985=100)

Product group	Current US\$			Current SDR		Real price ^a		
	1964	1994	2004 ^b	1994	2004 ^b	1964	1994	2004 ^b
Tropical beverages	33	91	54	63	37	89	58	36
Other food	66	152	131	106	90	178	96	87
Vegetable oilseeds and oils	46	107	111	75	77	124	67	74
Agricultural raw materials	46	140	126	98	87	124	89	83
Minerals, ores and metals	49	124	151	86	104	132	79	100
Non-coniferous woods (UK import price)	32 ^c	194	131	134	90	81 ^c	124	87
Tropical logs (Okoumé f.o.b. Gabon)	39 ^c	226	250	156	171	99 ^c	144	166
Plywood (Southeast Asian, Luan, Tokyo spot price)	29 ^c	285	217	197	149	78	182	145

Sources: UNCTAD, 2000, 2004b.

^a Current prices in dollars deflated by manufactures export unit value index for developed countries.

^b August 2003 – September 2004 average.

^c 1970.

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Timber prices have not followed the trend closely. While real prices for all groups declined considerably from the 1960s to the mid-1990s, the movement for timber during this period was in the opposite direction. Since the mid-1990s, however, price trends have become more similar. While the current as well as real prices for non-coniferous wood and plywood have declined considerably, those for some tropical timber species have risen, for example okoumé, as seen in Table 1. However, prices of some other tropical species have declined since the 1990s. The price trends reflect the underlying supply and demand fundamentals, in particular the oversupply of wood for fibre and the low flexibility to adjust supplies to demand variations.

In 2003 and 2004, many commodity markets experienced some increase in demand. As shown in Table 2, for most commodity groups the average monthly prices for the 12-month period covering September 2003 to August 2004 were higher than for the same period a year earlier. This increase is explained by the general, albeit uneven, recovery of the world economy and by the rapidly increasing commodity demand in Asia,

TABLE 2. Changes (percent) in average monthly prices covering the period September 2002 to August 2003 and the period September 2003 to August 2004

Commodity	US\$	SDR
Tropical beverages	0	-6
Other food	7	0
Vegetable oilseeds, oils	22	14
Agricultural raw materials	20	12
Minerals ores and metals	35	27
Non-coniferous woods (UK import price)	14	7
Tropical logs (Okoumé f.o.b. Gabon)	16	9
Plywood (Southeast Asian, Lauan, Tokyo spot price)	7	0

Source: UNCTAD, 2004b.

especially China. Industrial raw materials, including cotton, rubber and to a lesser extent timber, were the principal gainers, benefiting from the economic upturn and strong Chinese demand.

Influences

Over the years, there have been various attempts by producers and consumers of several commodities – but not timber – to stabilize prices in international commodity agreements, or by producers alone to increase them through retention schemes in producers' associations. For both economic and political reasons, however, these efforts have not been successful for

sustained periods, and no current agreement has economic measures directly aimed at influencing prices. Producers have often broken the discipline that is required of them in producers' associations; a recent example was failure of coffee producers in 2000 to implement the decision to retain 20 percent of production. For some commodities, such as rubber, which is produced by a small number of countries, the mere announcement of a supply management scheme has led to rising prices. One of the main constraints to retention schemes has been the difficulty of dealing with the root causes of structural oversupplies



Cotton in Latin America and the Caribbean is the only case where higher yields have been able to increase revenues despite the decline in real prices

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TABLE 3. Selected commodities: index of real prices 2002–2003 (1985=100) and yields (2001–2003 as a proportion of 1984–1986)

Region	Coffee		Cocoa		Maize		Cotton	
	Price	Yield	Price	Yield	Price	Yield	Price	Yield
Sub-Saharan Africa	21	122		141		103		107
Developing Asia	25	151		109		139		121
Latin America and Caribbean	22	147	51	63	49	163	69	216
Developed countries						122		97

Sources: UNCTAD, 2000, 2004b; FAO, 2004.

owing to exit barriers (as would be true for any attempt to implement policies to raise timber prices) and the inability to diversify production into higher-value-added or processed products. Another important factor in this respect is that in times of economic difficulties, in particular foreign exchange crises, the commodity sector appears to present the easiest avenue for increasing a country's export earnings even when this may have a depressing effect on world prices. A similar course of action has sometimes been followed in timber, but with significant negative impacts on sustainability. Moreover, once wood producers have incurred high fixed costs, especially in building roads and processing facilities, scaling down harvesting becomes difficult. Under such situations supply is inelastic to price declines.

More rapid growth in supply than in demand puts downward pressure on long-term trends in commodity prices. Increased production and lower international prices result not only from expansion of cultivated areas and improvements in productivity, but also from subsidies and other support measures, particularly in developed countries. Cotton, sugar, cereals and vegetable oils are subject to such support measures. Subsidies for timber are considerable in developed countries, particularly in North America, but they are usually of an indirect nature, such as opening of roads to provide access to remote forests.

Although higher yields could compensate for the decline in real prices and increase revenues per hectare, this has actually happened only in a few cases where gains in yields have been spectacular. Among the examples shown in Table 3, cotton in Latin America and the Caribbean is the only such case.

Higher yields and financial returns are generally obtained by bringing new areas into cultivation. This is one of the main reasons why output increases even when prices are low. For example, it is estimated that areas dedicated to cotton production in China (Xinjiang Province), Brazil (state of Mato Grosso) and Turkey (Southeast Anatolia region) have expanded by more than 1 million hectares since 1993/94. Average yield in these new areas is nearly 1.5 tonnes per hectare, compared with an expected average yield of 630 kg per hectare in the rest of the world (Estur, 2004). Changes in input costs are another crucial element in determining actual net earnings. Naturally, the situation varies from country to country and from commodity to commodity, depending on the changes in the proportion of the international price accruing to the producer and on the changes in productivity of each farmer. In forestry, investments in improving productivity have long gestation periods, and supply is less elastic to price increases. The other option is to intensify logging, which has serious negative impacts on sustainability.

In markets characterized by low price and income elasticities of demand, especially where small suppliers with little bargaining power face large and powerful buyers, as is the case in most agricultural commodity markets, the bulk of the gains of higher productivity are passed on to buyers. Whether these gains are passed on to consumers again depends on the structure and competitiveness of markets. With increasing concentration on processing stages and distribution chains, low prices of commodities are not normally reflected in lower consumer prices. Coffee provides a striking example in this regard (Osorio, 2004). In terms of exports free on board (f.o.b.), coffee-producing countries earned about US\$10 billion to \$12 billion per year in the late 1980s and early 1990s but now earn only about US\$5.5 billion. In contrast, the value of retail sales in consuming countries has grown from about US\$30 billion in the 1980s to about US\$80 billion at present.

Moreover, the share of export prices received by farmers varies over time, influenced by many factors such as the organizational and institutional structure of the commodity sector in producing countries. However, there is little evidence to conclude whether liberalization, abolishing of parastatal bodies and the withdrawal of the State from agricultural trade in developing countries lead farmers to obtain a higher or lower proportion of the world market price. It is clear, however, that the deterioration of some important support services earlier provided by the State, such as technical advice, finance, quality control and information, has put a downward pressure on net earnings of farmers. The private sector, mostly transnational firms, has taken over some of these functions, but gaps remain, and whether the private sector is the best channel for supplying these services is



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Coffee is a striking example of a low-priced commodity whose processing and distribution chains end in high consumer prices – although the high value of retail sales does not benefit the producers

Price effects of liberalized export markets: the experience of small cocoa producers in Cameroon

Many developing countries saw their export markets liberalized in the mid-1990s. As a consequence, where there was before a protective mechanism against price instability at the producer level, producers are now in direct connection with international prices and their instability. This is the case for cocoa producers in Cameroon, where the cocoa market has become totally open since the dissolution of the marketing board. Producers today sometimes face price instability higher than that in the international price.

A small cocoa farmer in Cameroon was paid 100 CFA francs (CFAF) (about €0.15) for 1 kg of cocoa in 2002, CFAF 800 (about €1.20) in 2003 and CFAF 400 (about €0.60) in 2004. The average international cocoa purchasing prices in the corresponding years were respectively CFAF 1 224, 1 182 and 1 254. Not only is the variation in local price incomparably higher than that in international price, but even the direction of change is contradictory. Facing such high

instability, farmers may seriously consider abandoning their plantations.

Such instability is hardly explainable on the exporters' side, because most exporters manage their price risk on international exchanges. However, the production chain has been completely dismantled, and the growing number of intermediaries (who are often ignorant of the international cocoa market) between producers and exporters may partly explain this phenomenon.

debatable, be it in agriculture or forestry. Moreover, in many countries, markets and private-sector distribution networks are not sufficiently developed to transmit price signals from international markets to actors on domestic markets. This may result in misallocation of resources (see Box).

NON-PRICE ISSUES

Although prices are the most immediately visible manifestation of the commodity situation, several other developments in the world commodity economy crucially affect the earnings of exporting countries as well as those of individual producers and traders. The ability to supply high-value products that meet the exigencies of markets is a key prerequisite for success, and the manner in which producers and traders participate in international value chains determines the value added retained by them.

Product content

The relative importance of product groups in international agricultural trade is changing, and suppliers that have been able to position themselves in the trade

of dynamic items are doing much better than those that are stuck in traditional items with stagnant trade and low value added. For example, cereals had a share of around 12 percent in world agricultural trade 30 years ago but now account for barely 7 percent.

From the 1970s to the early 1990s, the share of wood and wood-based products such as paper and furniture, both in world trade and in developing countries' exports, also declined considerably. However, both stabilized in the mid-1990s, despite the very rapid increase in global and developing-country exports of technology-intensive items such as transistors, telecommunication equipment and computers. In other words, trade in this product group was also fairly dynamic.

Another important change is that exports of processed agricultural products are increasing significantly faster than exports of semi-processed and unprocessed products. The share of processed products rose from 42 percent of global agricultural trade in 1990/91 to 48 percent in 2001/02 (WTO, 2004). Similarly, the share of furniture in world trade

went up from 0.92 percent in 1990/91 to 1.04 percent in 2000/01 (while the share in developing countries' exports rose from 0.53 percent to 0.91 percent, reflecting an even more rapid increase than the world average).

Processed or prepared products have much higher value added than unprocessed goods. For example, the following prices were observed at a United Kingdom supermarket. Carrots in bulk were sold for 39 pence per kilogram (about €0.56); a 1-kg bag of carrots cost 87 pence (about €1.25); 1 kg of peeled and sliced carrots cost 283 pence (about €4.07); and ready to eat "mini carrots" sold as a snack cost 600 pence per kilogram (about €8.64) (Dolan, Humphrey and Harris-Pascal, 1999). Such comparisons are difficult to make in a meaningful way for products such as cotton, where the share of the raw material in the final product (e.g. garments) is very low. The same is true of timber/furniture.

Not all countries have been able to participate profitably in the transformation away from traditional items. The bulk of the increase in dynamic exports has originated from the more advanced and

already diversified countries of South-east Asia and Latin America. Flower exports from Kenya have also been a success story. These countries not only have entered markets of non-traditional products, but also add value to their exports, for example by supplying ready-made flower bouquets and vegetables that have been packaged and bar-coded and are ready for the retailers' shelves. Similar success stories can also be found in timber products, particularly in the supply of furniture to large furniture retail chains such as IKEA.

Changing geography of trade

When the trade of agricultural products, including those in processed form (such as instant coffee), is examined over three decades, it is observed that the share of developed countries has increased in world exports and the share of developing countries has increased in world imports. This is the case for both food products and agricultural raw materials (Table 4).

On the export side, the major factors behind this trend are agricultural support in developed countries and the more

Exports of processed agricultural products are increasing significantly faster than exports of semi-processed and unprocessed products



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TABLE 4. Share of developed and developing countries in world agricultural trade (percent)

Commodity	Developed countries		Developing countries	
	1970	2001	1970	2001
Food items				
Exports	58	64	33	33
Imports	72	66	18	28
Raw materials				
Exports	58	62	31	31
Imports	73	62	14	34

Source: Calculated from UN, 2004.

rapid growth of exports of high-valued processed items from these countries than from developing countries.

On the import side, the main reasons for the increasing share of developing countries are rapid industrialization and income growth, which generate demand for both imports and domestic supplies, thus reducing exportable surpluses. This pattern is seen for food products as well as for agricultural raw materials and, in particular, minerals and metals. The trend on the demand side is expected to continue, particularly in China and other developing countries, opening up windows of opportunity for commodity producers.

Regarding wood and wood products, since 1980 developed countries' share in world exports has increased for less processed forms, and that of developing countries has increased for more processed items (Table 5). The increase in developing countries' export share, however, is from a very low base.

Changing structure of markets

Large trading firms and vertically integrated companies have traditionally dominated commodity markets. A recent development that has changed the nature of trade in many commodities, particularly foodstuffs, is the emergence of global supermarket chains. In many countries, including developing coun-

tries, supermarkets, which often belong to international chains such as Carrefour and Metro, have become the leading force in the retail sector (see *Development Policy Review*, 2002; Weatherspoon *et al.*, 2003; FAS, 2004). To be successful, exporters need to put their products on supermarket shelves. This requires meeting quality conditions which often go beyond those set by governments under the World Trade Organization (WTO) agreements on technical barriers to trade and sanitary and phytosanitary measures, as well as meeting continuity and quantity requirements. These conditions, which have to be satisfied by all suppliers to supermarkets, particularly those of dynamic products such as fruit and vegetables, are becoming applicable even in domestic markets. Thus, differences between domestic and international markets are becoming less evident. The differences fade even more as markets are opened up and competition with imports becomes inevitable. It is necessary but no longer sufficient for products to be cost competitive; competition in quality is becoming increasingly important.

Processed and prepared foods are consumed more widely as incomes increase. Access to technology and finance, as well as information about consumer exigencies, favour developed-country producers to meet this demand. However, developing-country producers that have

been able to link up with international supply chains by providing consistently high-quality products have prospered. Examples include frozen "French fried" potatoes from Argentina supplied to McDonald's (Ghezan, Mateos and Viteri, 2002) or fresh vegetables from Africa supplied to United Kingdom supermarkets (Dolan, Humphrey and Harris-Pascal, 1999). Success in these cases has often been confined to large, savvy producers with the financial means to invest in quality assurance and control.

Small producers are at a disadvantage under these new trading practices. Understanding the exigencies of the market is complicated, and meeting these exigencies requires investments that small producers are unable to undertake individually. Small producers' success depends crucially on their ability to organize so that they have access to the necessary infrastructure for quality assurance and control. In addition, by combining their supplies they can facilitate traceability and reduce transaction costs for large buyers in the retail sector, in many cases global supermarket chains. Similar developments are observed in furniture retailing and in the procurement practices of global furniture chains.

Generation of resources for investment and trade finance in commodity sectors is considerably more difficult than in industry. Lack of collateral is a major

TABLE 5. Share of developed and developing countries in world wood and wood products trade (percent)

Commodity	Developed countries				Developing countries			
	Export		Import		Export		Import	
	1980	2001	1980	2001	1980	2001	1980	2001
Wood	59.0	64.2	84.2	75.7	31.2	20.9	15.0	22.7
Pulp and waste paper	88.7	75.6	82.0	62.6	7.7	20.2	14.0	34.5
Veneers, plywood, improved and reconstituted wood and other wood manufactures	62.7	57.4	73.3	79.7	30.8	31.7	22.2	16.0
Paper and paperboard	92.2	82.2	78.7	68.6	4.8	13.0	20.1	25.1
Furniture and parts thereof	84.3	63.1	79.8	83.4	7.4	26.2	18.4	13.2

Source: Calculated from UN, 2004.

The emergence of global supermarket chains has changed the nature of trade in many commodities; exporters need to meet quality conditions to put their products on supermarket shelves



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problem, although this can be overcome (see UNCTAD, 2004a). It is important to look at the supply chain as a whole and to use the financial strength of some parts of the value chain (e.g. exporting) to finance other, financially less attractive parts (e.g. farming or small-scale timber production).

Differentiation is an avenue to explore, not only in non-traditional products such as fruit and vegetables, but also in traditional products such as coffee, where two opposing tendencies are observed. While processing technology now allows very low-quality coffees to be transformed into high-quality instant coffee, coffees from specific origins can obtain substantial premiums in “up-market” outlets.

Alternative marketing channels, such as certification of organic products and “fair trade” labelling, which denotes better-than-average treatment of workers or extra care related to environmental impacts, have provided additional opportunities for some small producers. Although the market for certified wood products is still small, certification is expected to become important, especially in the context of growing con-

cern about how the wood is produced. Fair trade initiatives, which are already benefiting some producers of coffee, bananas and flowers, could be an added means for further differentiating products and improving earnings. There are some efforts in this direction for selected non-wood forest products. In any case, these are private initiatives emanating from consumers with social and environmental concerns. Under current international trade rules, official government policies that confer preferential treatment to products based on their modes of production are not allowed.

The removal of market access barriers in the context of the Doha Work Programme of WTO is a prerequisite for export success by developing countries. This includes elimination of support to agriculture in developed countries which allows inefficient producers to compete unfairly. Although tariffs are low for unprocessed products, they rise considerably with increased stages of processing. Moreover, even if market access barriers are removed, market entry may remain an illusion unless the other requirements discussed above are fulfilled.

CONCLUSION

Commodity trade has become much more complex than before. Although traditional problems related to prices continue unabated, significant new opportunities have opened up for those exporters that can meet the increasingly stringent requirements of markets. Competition is harsh and requires the adoption of modern business methods. Small farmers need technical and financial assistance to undertake the necessary investments and satisfy the requirements. Cooperative ventures and appropriately designed contract farming arrangements appear to offer advantages in this respect. The role of farmers is changing. They are becoming simple “growers”, providing labour and often some capital, but making fewer and fewer major decisions on what and how to produce in responding to the requirements of large buyers. Survival is becoming more difficult for producers that are not integrated into global value chains.

Small-scale producers still have only a minor role in global forest products trade. Unlike coffee and cocoa, where small-scale growers play an important

part, wood requires a great deal of processing to enter international markets. Small-scale producers seeking to take part in international trade face a number of problems relating to the scale of production, long time frames and costs of value addition. Can forest communities organize themselves, with the support of the international community and a socially responsible private sector, so that they can enter global value chains and gainfully participate in the growing markets for wood and wood products, at the same time demonstrating that economic gains help in sustainable management of their forest resources? ♦



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