

TECHNOLOGY AND GLOBALISATION: WHO GAINS WHEN COMMODITIES ARE DE - COMMODIFIED?

Raphael Kaplinsky,
Institute of Development Studies,
University of Sussex
Kaplinsky@ids.ac.uk

and

Robert Fitter,
Institute of Development Studies,
University of Sussex

June 2002

We are grateful to a number of people in the coffee industry (including in the ICO, the retail industry, and in the coffee house and roasting sectors) for their assistance. We are particularly indebted to the librarians at the ICO for their generous assistance in providing data, and to Keith Bezanson and Calastous Juma for comments on an earlier draft. Finally, we would like to acknowledge financial support from the Dept for International Development.

Paper prepared for the International Journal of Technology and Globalization

ABSTRACT

Like many primary products, coffee has long been characterised as a commodity with falling terms of trade and volatile prices. Yet in recent years there has been growing product differentiation in final markets, with premium prices being earned and providing high and sustainable incomes. So far these product rents have been almost entirely appropriated by residents of high income economies. However, to the extent that growers learn to improve their product through the systematic application of knowledge throughout the value chain, and consumers are taught to recognise that product variety and quality are determined in the growing rather than the roasting stage of the chain, an alternative outcome is possible. The paper outlines what knowledge flows are necessary and concludes with an assessment of who needs to do what if this more favourable outcome for growers is to be realised.

Keywords:

Coffee
commodities
value chain
income distribution
terms of trade
structural adjustment policies

1. INTRODUCTION

Sustainable income growth and an equitable spread of incomes lie at the heart of development strategies. In the increasingly competitive environment which the current phase of globalisation represents, these objectives can only be met if producers develop the capacity to erect, or to benefit from barriers to entry. Whilst some natural monopolies continue to exist (for example, high-quality mineral deposits), in general these barriers to entry reflect purposive activities by economic agents systematically searching for innovation rents. It is customary to see these rents as embodying structured inputs of science and technology, usually comprising high-level human resource inputs and finding reflection in new (and generally complex) products and new embodied technologies. But in recent years we have come to realise that the ability to realise innovation rents requires a much more diffuse and wider application of knowledge, often involving less formalised and specialised skills in processes of continuous improvement, and applying as much to organisational routines as to the development of tangible products through the use of new types and vintages of embodied equipment.

For much of the twentieth century the evidence suggested that barriers to entry were much higher in manufactures than in primary products, reflected in a systematic decline in the terms of trade of commodity producers (Prebisch, 1950; Singer, 1950). The conclusions drawn from this was that producers should exit primary sectors and move into industrial production. But, towards the end of the twentieth century, two developments undermined this conventional wisdom. First, the entry of China into the global economy and the growth of productive capabilities in manufacturing in other developing countries has led to a fall in the terms of trade of many manufactured products, particularly those exported by low-income countries (Wood, 1997; Maizels, et. al., 1998 and 1999; Kaplinsky, Morris and Readman, 2001). And, secondly, as we shall see, it is no longer self-evident that all primary materials are subject to low barriers to entry.

In this paper we review the past experience of coffee producers as an example of the possibilities open to primary producers. Coffee is an important exemplar for two major reasons. The first is its size and relevance to poor producers. Total global exports (75% of production) exceed \$9bn,¹ and the sector employs more than 25 million people globally on more than 5m farms. It fills approximately 400 billion cups a year and is estimated to be regularly consumed by more than 40 percent of the world's population. Coffee has a particularly large "footprint" in poor countries, and amongst poor producers in these countries. For many African countries, coffee has long been the major export, and it also plays an important economic role in Latin America and Asia. Moreover, the lower the level of per capita income, the more dependent producing economies are on coffee exports (Fitter and Kaplinsky, 2001a).

Secondly, coffee has long displayed the characteristics of a paradigmatic primary commodity. Not just have prices declined consistently, but in the very recent period, these have fallen below production costs and coffee stockpiles suggest that the price could sink even further. Although the current prices of the four main categories of traded coffee was unchanged between the mid 1960s and mid-2001 (at around \$50cts/lb), real coffee prices (deflated by the UN developed market economy export index) fell over the long term. Despite some short-term spurs in real prices (notably in

the mid eighties and mid-nineties), they continued to fall during the last years of the nineties, reaching a level in 2000 which was around half that of the mid 1960s (and around 20 percent of peak market values in 1978) (Fitter and Kaplinsky, 2001a). The impact of these declining prices on producing countries has been severe, especially where coffee comprises a major share of export receipts. For example, falling prices over the past two years have cost Uganda almost 50 percent of the HIPC debt relief package (Oxfam, 2001). The impact on particular regions which specialise in coffee, such as the slopes of Mount Kenya and Kilimanjaro and the Chiapas region in Mexico (where 60,000 growers have been forced off their holdings, Independent on Sunday, 22 April 2001) have led not only to household poverty, but also to emigration and urban squalor. Global stockpiles of 56m bags - half of annual global production (at 113m bags, in itself larger than annual consumption of 103m bags) - threaten to push the price down even further.

The issue confronting coffee growers is whether it is possible for them to gain from the decommodification of the final product, by erecting and/or taking advantage of barriers to entry. In this paper we identify the space for such an upgrading strategy and provide evidence that some producers are beginning to grasp these opportunities. This does not mean that all coffee producers will be able to take advantage of these innovation rents, but there are nevertheless clear avenues for progress. Reference will also briefly be made to other primary products to show that these coffee-specific actions may indeed be generic.

The following section discusses the growth of product diversity and the nature and determinants of taste preferences in final markets. This is followed in Section 3 by a discussion of intra-chain and inter-country income shares in the coffee value chain, showing why growers need to generate innovation rents if they are to realise sustainable incomes. Section 4 addresses the manner in which the systematic application of knowledge may help to realise these innovation rents, linking actions at the producing end of the value chain with those at the consuming end. The concluding section addresses the policy conclusions which emerge, and recognises that whatever the outcome of the proposed initiatives, we will continue to live in a world of winners and losers. What is at stake is whether an increasing number of winners can reside in developing countries, and whether they can include coffee growers.

2. SIGNS OF DECOMMODIFICATION? THE EMERGENCE OF DIFFERENTIATION IN COFFEE CONSUMING MARKETS²

Coffee, as we have seen, has behaved as a paradigmatic primary commodity over the past four decades, exhibiting sustained declines in its terms of trade, punctuated by occasional periods of price-rises when natural factors or cartel activities have restricted global supply. Underlying this performance has been the relatively undifferentiated nature of final product markets, allowing roasters to substitute different coffees in their blends. But there are increasing signs that final markets are becoming more differentiated. The major UK retailer of coffee currently offers 96 different types of coffee, but a typical store still only has 16m² of coffee space compared to 40m² for wine (for which it has a range of 400-500 wines). As the chief buyer of this retail chain observed, “coffee is now where wine was 10 years ago”. This accords with the observation of one of Nestlé’s Vice presidents that “[t]he degree of variety of coffee and the variation in taste is at least as great as that of wine” (Interview with Herbert Oberhänsli, Vice President, Economic & International Relations, Nestlé SA).

In this Section, we explore the nature and dynamics of changing tastes in final product markets by considering different product groups, the determinants of coffee tastes, and the respective roles played by brands and blends in coffee marketing.

(a) Differentiation in the major product groups

Five major product groups can be identified in major consuming economies:

1. *Roasted ground* coffee is particularly important in continental Europe (which is the largest consuming region in the world, accounting for 40 percent of the total). This represents a relatively simple processing stage, taking in imported green beans and either selling roasted beans directly to the customer, or selling roasted ground coffee in vacuum-packed bags. This form of preparation can use blends of beans or beans from a single origin, and is popular in the main consuming regions. There are a variety of sub-varieties of roasted ground coffee – for example, flavoured coffees, Espresso and cappuccino. These reflect the type of coffee used,³ and their blends, as well as the mode of preparation. The roasted ground coffee market is becoming increasingly differentiated, as is reflected in the spread of prices on supermarket shelves (Table 1).

Insert Table 1 about here

2. *Instant coffee* is now a staple drink in countries which had previously had a long tradition of tea-drinking. This applies particularly to the UK and some of its former colonies, to China and to the USA. In most of the major markets, instant coffee comprises only 20 percent of the market (except in the UK where it accounts for 85 percent of consumption). Over the past two decades, product innovation has been an important development in this sector. By the turn of the

millennium, all of the world's largest instant coffee producers had a large portfolio of instant coffees - one has over 100 brands. The basic instant powder was complimented by coffee granules in the 1990s, and these now dominate the instant market. More recently, freeze-dried coffee was introduced and played an important role in rolling back advances made by the roasted ground sector in the UK. Over the past five years, as coffee consumers have become more attuned to variety, new grades of speciality coffee have been introduced, trading on the country of origin of the beans. There are also small niches, such as decaffeinated coffee, and sub-sub niches such as decaffeinated coffees using water-, rather than chemicals-based process.

Price premia in this market (see Table 2) depend on the brand name of the blender and its presentation of "quality" and "variety" under different labels. Although recent developments have allowed customers to choose the country of origin, it has not allowed them to dig into this to unravel the taste of different types of beans, let alone different geographical locales within countries.

Insert Table 2 about here

3. *Canned ready-to-drink coffees* have until recently largely been confined to the Japanese market. There, per capita consumption grew from 1.64kg in 1979 to 2.91kg in 1998, largely based on instants (where Nestlé's dominates). But canned ready-to-drink coffee has now grown to 20 percent of the market, dominated by Coca Cola. In Spring 2001 Nestlé's launched a new canned drink in the UK market. Selling at \$1.79 per can, it incorporates a technology which warms the drink after the can has been shaken (Guardian, 1st May 2001).
4. The *catering and restaurant* market represents a large, but largely stagnant market. However, over the past decades, a rapidly-growing niche has been the *branded coffee bar market*. The origins of this market are to be found in the US Specialty sector which sells a variety of products, predominantly characterised by blends which have to "force" their way through milk-based products.⁵ So, in addition to flavoured coffees (designed to attack the youth market), the blends offered in this sector are distinctive. Coffee houses such as Starbucks have spread to Europe and have been matched by local alternatives such as Seattle Coffee Co. (acquired by Starbucks in May 1998), Costa Coffee, Coffee Republic and so on.⁶ In the UK, for example, the number of coffee houses leapt from 1,328 in December 1997 to 7,100 in January 2001 (Leisure and Hospitality Business, 25th January 2001). Unbranded coffee houses dominate in Europe and in Japan (where there has, however, been a sharp fall in numbers, from 154,630 in 1981 to 101,945 in 1996 - Wheeler1998)
5. A final "market" for coffee is that arising from *ethical trade initiatives*, a niche in both the roasted ground and instant sectors. Fair-trade products target consumers who are prepared to pay a premium to ensure that producers get a "fair" price, in this case guaranteed minimum prices paid to farmers of more than double the global price in May 2001 (see below). Whilst still small, the share of fair-trade coffee has grown steadily in some countries, particularly in Europe.

In each of the major markets there are indicators of differentiation in final product markets. The data we give in Tables 1 and 2 are specific to the UK market, but similar trends can be found in virtually all markets in the major consuming countries. These data are essentially static – that is, they show price spreads at a single point in time. However we have interviewed buyers in major supermarkets, and some of the largest instant coffee producers in the world, and all confirm that the degree of differentiation in coffee blends and prices, in both the instant and roasted ground markets, has been growing significantly. They also anticipate that this process of differentiation will continue to expand in the future, and are indeed basing their marketing strategies on this expectation. In part this is because of the income-elasticity of coffee (Key Note, 2000). Thus, as incomes grow, so will the demand for differentiated and higher quality coffee.

(b) Organoleptic taste characteristics

Taste is of course a complex phenomenon, and is characterised by significant personal and cultural differences. A rigorous study of consumer tastes was conducted in eight different European countries, using 11 panels, and 16 varieties of coffee. In each country a sample of unskilled consumers was identified, and identical procedures were utilised. “The most frequently mentioned attributes were bitter taste, burnt flavour, acid taste, astringent, earthy, caramel, woody, floral and fruity flavours and sweet taste... The terms body mouthfeed, chemical flavour, chocolate flavour, grass flavour, rancid flavour, rubber flavour, salt taste, malty flavour, roast flavour, smoky flavour, spicy flavour and tobacco flavour were [also widely recognised].” (European Sensory Network, 1996: 67). These more commonly recognised attributes clustered from a total number of 148 different taste factors. On this basis, a total of 13 attributes were identified as being core constituents of continent-wide tastes (ibid: Table 5.6, p. 93).

Nine sets of factors are widely recognised as determining these organoleptic taste characteristics⁷ - species; cultivars; climate and altitude; soil; cultivation, harvesting and ex-farm processing; transit; roasting; retailing; and the means of coffee preparation. Each of these plays a critical role, but it is widely recognised that although activities at the top of the value chain (notably the freshness of ground coffee and the mode of brewing) can spoil the product, the primary organoleptic determinants of taste arise at the bottom of the chain, that is in the growing and cultivation of the crop.

(c) Non organoleptic taste characteristics

Coffee tastes are increasingly defined in “positional good” terms, as they increasingly are for example in the case of bottled mineral waters. Here, the act of consumption also defines the social position of the consumer, who not only buys a product for its intrinsic properties, but also for the image which the conspicuous consumption provides. This is of course the primary factor which advertising plays on. But it also affects the social context in which consumption occurs. Purchasing coffee in an upmarket coffee bar not only buys a distinctive refreshment and a rest from the hustle and bustle of urban life, but it can also help the consumer to position him/herself in the crush of other consumers. Thus as one UK coffee house executive puts it, “gourmet coffees require not only good taste but ‘a good story’”. Employees in coffee

houses are referred to as “baristas” or “El Mano” and work in “the theatre of actually doing it”. They make a point of employing “attractive foreigners”, all of who pass through two-day residential courses at three UK training sites.

“Positional” consumption is of course the target of marketing activities by coffee roasters and retailers. In pursuing this target, heavy investments are made into the development of *brand*. This is the name which defines an image, a “position” and, very importantly, a guarantee of consistency to the customer. Although Nescafe, for example, will have a different blend for its coffee in different markets (even within France), the customer is assured of the consistency of its product in each of these markets. These firms spend significant sums on branding. In the UK in 1999, instant coffee advertising expenditure was \$71m, of which 52 percent was Nestlé’s, 27 percent Kenco and 11 percent Douwe Egberts (Key Note Ltd 2000). The major global roasters spend approximately 15 percent of sales on marketing (Interviews).

The consistency delivered by a brand is not the same as the subtleties of taste which an informed coffee drinker might recognise. This will be affected by the nature of the *blend* which is provided. In almost all cases, the major coffee branders will sell blends of mixed beans, whether these are in instant or roasted ground form. In some respects these blends are produced in order to balance the taste of different types of beans, each of which may only provide a spectrum of taste characteristics which most consumers are said to prefer. The major branding companies insist that this is a necessary condition for marketing coffee. On the other hand, blends perform another vital function. They allow the branders to assemble a product from a portfolio of substitutable beans. This protects them from shortages (due to environmental or political factors), poor quality crops in particular years and, critically, from price variations. The closer their blends are to a recognisable specific coffee input, the more difficult the brander will find it to minimise costs by substituting low-cost for high-cost beans.

3. WHO GAINS IN THE COFFEE VALUE CHAIN?

In principle, value chain analysis allows us to chart the distribution of gains in a number of different dimensions, including between different links in the chain, countries (producing and consuming), classes (employers and employees), types of producers (large and small farms and firms), regions, and genders and ethnic groups (Kaplinsky and Morris, 2001). However, our data at this stage does not allow us to provide a comprehensive overview of these distributional issues. But we are able to throw some light on complex ways in which the gains in the coffee value chain are being spread between the first two dimensions of inequality, that is between links and countries.

(a) Distribution between different links in the chain

Seven major links in the coffee value chain can be identified – these are the farmers, farm-level processing, export agents, international transport, global coffee traders, coffee roasters and the retailers. (We have excluded from this the coffee-house sector. If it is included it would drown-out the participation of other links in the chain since the coffee content of final products in this market is around six percent). We can

distinguish three elements of distribution with respect to these intra-chain shares – their share of total chain income, the relative incomes supported, and the rates of profit of different links in the chain:

- Figure 1 shows how the *share of final retail price* was distributed between these links in the chain in the mid-1990s.⁹ From this data it is evident that the roasters receive almost one third of the final retail price. The post-farm processors and the retailers receive about 20 percent each, and the balance is spread between other links in the chain. The farm activity itself only accounted for 10 percent of total product price in the mid-1990s, although this had fallen to only seven percent in 2001 (Oxfam, 2001).

Insert Figure 1 about here

- But this share of total sales value does not tell us anything about the *relative incomes* which these returns support. Compare, for example, the growers and buyers. Each of these categories earn around 10 percent of total chain income. Yet the former group involves more than 25 million people, compared to the few thousands involved in global buying. Similarly, the share realised by roasters accounts for almost one-third of final product prices, but their operations involve very capital-intensive technologies. Retailers, too, absorb a high proportion of final product prices, yet have extensive working capital costs, invest heavily in marketing and are labour-intensive in nature.

Clearly, incomes are higher in the importing, roasting and retailing links than they are in the growing and coffee processing stages, even if account is taken of different costs of living (for example, by using PPP \$ rates). In May 2001, almost no coffee farmers in the world were able to cover their production costs, even when labour was costed at near to zero. By contrast, in most of the roasting, trading and retail activities in the major consuming countries, minimum incomes exceed \$15,000 per year. White collar incomes are much higher than these, and many traders can earn more than \$100,000 annually.

- Estimating relative *rates of profit* is more difficult. First, most coffee is produced by small farmers, whose records cannot be accessed. And, secondly, both the global roasting companies and the global coffee trading companies participate in a number of different product markets, as do the supermarkets. They do not distinguish coffee separately from other products in their product portfolios, so that it is not possible to identify the profitability of their coffee operations.

There is a widespread prejudice that retailers appropriate most of the surplus which is generated in the chain, but the evidence is not compelling.¹⁰ Little is known of the profitability of the global coffee traders. Here the roasters and retailers both believe that profit rates are abnormally high.¹¹

We can draw two conclusions from this data on intra-chain distributional patterns. First, unambiguously, those parts of the chain which operate in high high-income countries support significantly higher incomes than those which occur in low-income countries. This is because incomes in these links in the chain are determined exogenously, that is by average income levels in the economy as a whole. (for

example, the wages of coffee shelf-stackers in retail stores are determined by economy-wide wages in the retail and service sectors, whereas the incomes of coffee farmers in producing countries reflect the low returns to agricultural activities in general). And, second, even though there is no detail on profit rates in the coffee-specific activities of diversified TNCs in consuming countries, these are widely acknowledged to be positive (and often higher than in other parts of buying and retailing). By contrast in 2000-2002 very few coffee farmers engaged in profitable production.

Distribution between different countries

A second distributional outcome is that which emerges between different countries, in this case developing countries that export coffee beans, and the high-income countries that import and roast the beans. Figure 2 shows the inter-country distribution of coffee proceeds. It is evident that since 1985 a growing share of total incomes in this chain have accrued to economic agents in the importing countries. A particularly striking aspect of this data is that the margins which formerly went to intermediaries in the producing countries – notably marketing boards – have been eroded. In large part this follows from the pressure emanating from multilateral and bilateral agencies designed to eliminate what were seen to be surplus-extracting and parasitic intermediaries. However, not only does recent evidence suggest that growers are suffering from the absence of the extension which these marketing boards once provided (Ponte, 2001), but more importantly that instead of their share having gone to the producers, it has almost entirely been appropriated by chain-participants residing in the high-income consuming countries.

Insert Figure 2 about here

A major reason for the inter-country distributional outcome observed in Figure 2 is the producing structure in global coffee production. Seventy percent of global coffee is grown on farms of less than five hectares. The abolition of the marketing boards proposed (or perhaps, more accurately, imposed) by multilateral agencies on developing countries through structural adjustment programmes has meant that producers sell atomistically into commodity markets. It has also meant that one form of chain “governance” (Gereffi, 1994) – agricultural extension – has been removed from the bottom end of the chain. These atomistic producers lack the capacity to combine, as do their governments (although the reasons for this are more problematic).

Contrast this with the market power at the importing end of the value chain. As Table 3 shows, the top five importers account for over 40 percent of total global trade, and the top 10 for more than 60 percent.¹² Moreover, there is evidence that in some producing countries, buyers collude to ensure that they do not compete with each other when purchasing at the farm/cooperative level, and hence push up prices (interviews). So powerful are these trading companies, in the coffee market, that even the largest retailers and roasters source their beans from them. As Morisset observes, “[s]urprisingly, policymakers, economists, and consumers seem to remain largely unaware of these companies, even though they are often bigger than developing economies and play a determinant role in most commodity transactions worldwide” (Morisset, 1998: 520).¹³

Even greater levels of concentration are found at the roasting link in the chain (Table 4), as well as in the retailing link. For example, in the UK, Nestlé's has a market share of 55 percent and Kraft has 25 percent of the instant market; in roasted ground coffee, one supermarket's own brand is estimated to account for more than one-third of all retail sales; and in the coffee house market, Starbucks and Costa Coffee account for 43 percent of total sales (Daily Express, 9th January, 2001). The pattern in Europe is not dissimilar. In France and Italy the top five roasting companies account for 90 percent and 70 percent of their respective markets, and for Europe as a whole, the top five companies produced 52 percent of the coffee in 1995, increasing to 58 percent three years later (Wheeler, 1998).

Insert Table 3 about here

Insert Table 4 about here

4. ARE ALTERNATIVE DISTRIBUTIONAL OUTCOMES POSSIBLE?

Crudely speaking, it is possible to bifurcate the global coffee value chain between producing countries and consuming countries. In the former group, returns show a long-run decline in real terms and declining terms of trade. In the very recent period (2000-2001), prices paid to growers have fallen in nominal terms to their lowest level since data became available in 1963, resulting in widespread poverty and emigration to urban areas. Prices being received at the farm-level have fallen below the cost of non-labour inputs in many cases. A particularly worrying element in these developments is that much of global coffee production occurs in regions of intense conflict and/or drug growing (notably Central America and East Africa). If these farmers are unable to realise a legitimate income from coffee, they are likely to either diversify into cocaine or to sink into renewed armed warfare.

By contrast, in the richer countries, incomes in the coffee value chain are holding up. Trading companies, roasters and retailers are able to sustain income growth amongst their employees and have remained profitable throughout the past four decades of falling input prices. Some particular companies (such as Nestlé) have been able to sustain profit margins which are above industry averages, and it is also possible that the coffee trading companies may have been able to sustain a relatively high rate of profit over a long period of time. There is little sign that consumers have gained from falling coffee bean prices, but this is not dissimilar from other primary materials (Morisset, 1998).

In the face of these developments what solutions can be identified which might realise a different outcome, and one in which a greater share of returns accrue to the growers? Two major approaches to raising the income of growers can be identified – that focused on limiting supplies, and that aiming to promote innovation, including by taking advantage of the decommodification of the final product (These routes are not exclusive, but require different policy responses):

(a) Limiting coffee supplies

Historically a key factor in limiting supplies has been beyond human control and planning and arises from the possibility that natural and environmental factors will intervene to restrict supplies. These exogenously-determined events – usually a frost or a drought in a major producing country such as Brazil - have punctuated the global coffee market at odd intervals (particularly in the late 1970s), leading to a sharp rise in prices for a three-to-four year period until new coffee trees planted at the time of high prices bear fruit and once again flood the market.

A second supply-limiting factor is subject to policy interventions and reflects attempts to withhold coffee from the global market. The primary instrument here is an agreement amongst producers to restrict coffee supplies. This worked most effectively during the 1965-1975 period, and for a long time, the various attempts at controlling supplies had the agreement of the consuming countries as well (until the collapse of the ICA economic provisions in 1989 and subsequent US withdrawal from the ICO in 1993). But the extent of coffee availability and the entrance of new producers without historical quotas (notably Vietnam, whose exports have grown from virtually nothing ten years back to 11 percent of global trade) have made it difficult to sustain these attempts at cartelisation. One additional reason why these attempts at cartelisation do not work is the role played by multilateral agencies such as the World Bank, which has, for example, promoted coffee production in Vietnam. Coffee roasters such as Nestlé have also played a role in developing new suppliers, notably in recent years in China (Montavon, 1997: 26).

A variant of this supply-constraining strategy is the physical destruction of coffee stocks. This is a measure proposed by Oxfam in May 2001 whose plan included the demolition of 15m bags of low grade coffee which would cost \$250m, to be funded by a windfall tax on roasters; the retention of 20 percent of global exports for three years; bringing an end to coffee expansion programmes, by multi- and bi-lateral aid programmes and by governments; the promotion of labour and environmental standards; and assisting coffee farmers to diversify. This is an ambitious programme and strikes at the important issue of limiting coffee supplies. Its unique and innovative features are the attempt to promote the physical destruction of crops, and to fund this through a windfall tax on roasters. However, it is unlikely that this tax will be accepted by the roasters, and the attempt to limit coffee exports suffers from the same drawbacks as previous attempts at cartelisation (see above).

*(b) Promoting innovation in the coffee value chain*Taking advantage of emerging product decommodification

As we have seen in Section 2 above, final coffee markets are becoming increasingly differentiated with a concomitant increase in coffee prices. This process of product decommodification provides the space for participants in the chain to take advantage from and/or develop barriers to entry in their particular spheres of activity, and hence to benefit from some of these emerging rents. The main potential actors are blenders and branders; ethical trade initiatives; and growers' associations.

Roasters and retailers in the major consuming countries have followed a complimentary strategy of developing blends and promoting brands. The blend-route provides the scope for profitability since it allows the roasters to substitute bean inputs and to take advantage of differential bean availability. Brands offer the capacity to exploit positional consumption and are promoted through heavy advertising expenditure.

So far (with the exception of ethical trading initiatives – see below), most of the emerging product rents in the chain have been captured by the roasters and blenders who are resident in the consuming countries (Tables 1 and 2). However, this is not entirely the case, and some *growers* have been able to take advantage of product rents by promoting the virtues of location-specific “images” and taste. The most notable case of this is Jamaican Blue Mountain Coffee (Box 1). In recent years the Colombian coffee industry has invested heavily in promoting the brand image of “Colombian coffee”, but this has been discontinued partly because of its cost in the context of falling coffee prices, and partly because the location-specificity (Colombia) was so diluted that it was the roasters in the consuming countries rather than the coffee growers who were able to gain from the product’s image.¹⁵

Box 1: Location-specific product rents – Jamaican Blue Mountain Coffee

Jamaican Blue mountain coffee is a premium product, with Japanese consumers prepared to pay up to \$20 per cup. Its growers have been able to escape the severe price pressures which have characterised the industry, particularly in recent years. As the CEO of the Jamaican Coffee Board observes: "Blue Mountain coffee prices are not subject to the factors of supply and demand that affects other commodities. The price is fixed. This is useful in these times when coffee prices are low because of over-supply" (Financial Times, 18th October 2001). In early 2002 Blue Mountain coffee sold at \$6-8,000/tonne compared to the London market price for arabicas of around \$1,200/tonne.

Not surprisingly, other producers in Cuba and Kenya have attempted to grow smuggled Blue Mountain beans in similar growing conditions. But whether the exact growing conditions and agronomic practices have been difficult to replicate (the Jamaican coffee industry’s view), or whether it is the unique reputation and mystique of Jamaican origin coffee which affects consumer tastes (the view of competitors and many industry observers), the special characteristics of Jamaican Blue Mountain coffee endure. Most important from the perspective of other growers and policy (see below), it is the single-origin nature of the product’s image that enables this particular set of growers to gain from product rents.

Source: Financial Times, 18th October 2001; interviews

A factor of growing, albeit still limited importance in defining coffee tastes is the emergence of *ethical consumption in final markets*. The FairTrade movement, through companies such as CafeDirect, has been playing an increasingly important role. It has appealed directly to the conscience of consumers, invoking them to pay higher prices for coffee. The current world market prices (June 2002) range from 62.94 US cents/lb for Colombian milds, to just 28.42 US cents/lb for robustas. This translates into a farmgate price for arabica of less than US\$0.20/lb and as little as 10 cents/lb for

robusta growers.¹⁶ By contrast FairTrade's guaranteed minimum price is \$1.26/lb for arabicas and \$1.06 for robustas; if market prices are higher than this, the farmer is paid a 10 percent premium, (and a 15 percent premium for organic coffee).¹⁷ In 1998, FairTrade labelled coffee accounted for 1.6 percent of European sales; in some countries such as Switzerland it has been as high as three percent (Table 5). As the ethical consumer market grows this provides an important floor to production.

A similar and related development is the growth of eco-labelling schemes, involving the production of organic coffee and other environmentally related practices. Shade-grown coffee is grown under a cover of forest, managed plantations or other tree crops which improve soil fertility, reduce erosion, and support a far greater biodiversity than monoculture coffee plantations grown in the direct sunlight. The Smithsonian Migratory Bird Center has developed a "bird-friendly" certificate for coffee grown under minimum shade requirements and ecologically sustainable management practices. There are also many organic certification organisations for coffee. Independent, third party certification organisations such as Quality Assurance International in the USA, Organic Crop Improvement Association in Canada, National Association for Sustainable Agriculture in Australia, OkoGarantie in Germany, Inkacert in Peru, Mayacert in Mexico, and EcoCert in France, inspect farms and monitor adherence to sustainable agricultural techniques, and the use of synthetic fertilizers, pesticides and other agrochemicals. Coffees with these ecological certificates can demand a substantial premium in the retail market (see Table 1).

Insert Table 5 about here

The systematic application of knowledge in the coffee value chain

Despite its growing momentum, ethical consumption provides only limited scope for enhancing grower incomes. (It also poses difficulties for small farmers who need to gain appropriate accreditation – Smith 2001). A more durable and substantial way of enhancing producer incomes lies in the systematic application of knowledge to the coffee value chain. In pursuing this discussion we are informed by the analytical schema towards upgrading provided by the value chain framework (Humphrey and Schmitz, 2001; Kaplinsky, 2002 forthcoming; Kaplinsky and Morris, 2001). This distinguishes four forms of upgrading, only the first three of which apply to our analysis of the coffee value chain:

- ❑ *Process upgrading*, including innovations involving collaboration between links in the coffee value chain
- ❑ *Product upgrading*, including innovations involving collaboration between links in the coffee value chain
- ❑ *Functional upgrading*, comprising a different mix of activities within a particular link in the chain (for example, taking responsibility for logistics and quality) and/or undertaking activities formerly performed by other links in the chain (for example, moving into marketing and branding)
- ❑ *Inter-chain upgrading*, moving to a wholly different chain (for example, moving from coffee production

As in many other chains, the factors determining “quality” arise from the systematic application of knowledge to the whole chain of production, including procedures which affect processes (within and between different links in the chain) and products (within and between different links in the chain). The experience of Illy, a major Italian transnational, illustrates both the challenge and the rewards from this chain-level approach. It has systematically addressed upgrading challenges at the process level, including growing practices, bean selection, roasting and packing. Similarly at the product level, specific cultivars have been used, and quality has been stressed at all times. Illy also illustrates the simultaneous importance of functional upgrading – it not only operates in many links of the chain (although but not by growing beans itself), but places particular emphasis on branding. In this cross-chain presence it has diversified extensively from its historical roots in coffee packing (Box 2).

Box 2: Illy: The Systematic Application of Knowledge to the Coffee Value Chain

Illy is a privately-held Italian company with a turnover in 2000 of €176m. It employs 500 people worldwide and is wholly-concentrated on the coffee chain. It performs at the premium end of the market, with excellence, with pre-tax profits of 10.4% on sales (and of course a much higher margin on shareholder funds). (Compare this with the zero profitability of most coffee growers)

Illy’s route into coffee was through technological innovation – in the 1930s the founder developed an end-seaming technology for tins which allowed coffee to be stored at 0.3-0.4 atmospheres, and therefore to serve distant markets with fresh coffee. (Their current technology provides coffee storage at 1.5-1.5 atmospheres, in distinctively shaped and branded aluminium containers which simultaneously fosters positional consumption).

How does Illy manage to sell coffee at \$10/250gm in the US, compared to competitors’ prices of \$1.50/kg, and how does it manage to pay farmers at around double the prevailing world bean price in 2002? It does so by systematically applying knowledge at every point in the value chain. Coffee is a complex product, with more than 800 components of aroma alone. In some cases this effort involves high-science – for example, the analysis of the percolation process took half-an-hour on a Cray supercomputer. 12% of employees have university degrees and Illy spends 1.5% of sales on R&D. But more to the point is Illy’s systematic application of technology and knowledge (generally in disembodied procedures) throughout the chain often involving barely-literate workers, through.:

- Heavy investments in understanding the *nature of flavour*. Building on genetic developments they work closely with farmers, since there is a complex interaction between ecology and genes; reducing water content from 65% to 11% provides plenty of scope for moulds and rot; and poor transport leads to coffee degradation. Illy runs courses for both buyers and farmers in countries where they purchase beans.
- Sophisticated *selection of the bean*. Most farmers have little knowledge of what constitutes “quality coffee”, and they have to be taught how to recognise this. Bean selection also depends heavily on technology and in cooperation with a machinery supplier Illy developed a sorting machine, protected by two patents

(which have now expired). (Each of these machines cost \$150,000 and processed 3-4 tonnes/hr, although they are being replaced with smaller and less costly machines).

- ❑ Temperature control in *roasting* This is critical – C3⁰ at C200⁰ makes a significant difference to taste - and is not a simple process. Due to non-linearity when the roasting process is scaled-up, it involves heavy investment in sophisticated machinery.
- ❑ *Packing* technology. This was Illy's historic core-competence and remains a key competitive advantage
- ❑ *Branding* is of key importance and 9-10% of sales is spent on advertising
- ❑ Diversification down the chain - one of the family members has built a business manufacturing and selling *espresso machines* for home consumption.
- ❑ Assisting coffee houses (accounting for more than a third of sales) which are targeted for *education* since “dirty machines kill the best coffee”. Illy also invests heavily in designing “coffee bar concepts”, ways of improving the ambience of coffee bars.

Source: Interviews and Illy website

Illy's experience displays the systematic application of knowledge along the value chain, often including large inputs of formal R&D. Whilst they are a leading – perhaps *the* leading example – of this high-tech approach, they are not unique. But others have been conspicuously less successful, including in recent years the coffee sector in Colombia. It gambled on the introduction of new cultivars. Using sophisticated genetics-based research, they developed a new hybrid – *catimor* – which comprised 75% arabica genes, and 25% robusta genes, aiming to gain the best from both varieties. Unfortunately the taste outcome was perverse, and was heavily dominated by robusta DNA which comprised more than 80% of the taste. In the meanwhile large parts of the country's coffee has been replanted with *catimor* with, in the views of one key respondent, “catastrophic results”.

In other cases – and in the predominant case – inputs of formal science and technology have been misdirected to deliver greater efficiency, such as the development of pest-resistant varieties. But by rising output, and paying little attention to quality and differentiation, these technological inputs have only intensified the problems of over-supply, resulting in ever-decreasing bean prices. For example, Vietnamese robusta production involves heavy inputs of chemicals and irrigation, but the poor quality product sells at a heavy discount (around \$350/tonne compared to \$500/tonne for Indian robusta in early 2002). The industrialised route being pursued by Brazil – large plantations (up to 8,000 hectares) using irrigation and chemicals - also leads to low output prices (\$800/tonne compared to \$900-1,000/tonne for the Ethiopian equivalent arabica).¹⁸

These three examples – Illy, the Colombian *catimor* cultivar and pest-resistant varieties – reflect the application of formal science and technology to the value chain.

But not all attempts to upgrade require these formalised inputs. The recent experience of Costa Rican growers, who have adopted an upgrading strategy which reflects the three upgrading categories of value chain analysis, shows the scope for growers developing strategies to command a growing share of emerging product rents (Box 3).

Box 3: Upgrading the coffee value chain – the experience of some Costa Rican growers

In 1994 three Costa Rican growers established The Coffee Source. Their success stimulated the establishment of the Specialty Coffee Association of Costa Rica (SCACR), formed by 8 growers in 1999, and now comprising 35 growers.

SCACR's strategy is described by its Executive Director in the following manner: "Costa Rica growers are all thinking of quality now. Coffee is becoming like wine. The drinker wants quality and wants to know where it comes from. We will eventually develop regions, just like wine" (Financial Times, 1st February 2002). At the height of the price crisis in 2002, SCACR growers were able to sell beans at between \$1.20 and \$1.85/lb, more than double the prevailing world price.

This outcome was achieved through a systematic upgrading strategy which involved:

- *Process upgrading.* Systematic attention was given to quality procedures throughout the growing links in the chain, with growers paying independent inspectors to check all parts of the production process.
- *Product upgrading.* Systematic attention was given to positioning a high quality product. As the VP of SCACR observed, "Costa Rica cannot compete with countries like Brazil and Vietnam on price. So we have to do so on quality...The people we supply are not price shoppers but quality shoppers"
- *Functional upgrading.* Instead of selling through intermediaries, SCACR began to sell directly to roasters and retail establishments - "There was a price crisis then and the families decided to look for a different way of selling and marketing their coffee. The main idea was to cut out the middlemen" (General Manager, The Coffee Source).

Source: Financial Times, 1st February 2002, www.icafe.go.cr

5. CONCLUSIONS

As we have seen, coffee is becoming an increasingly differentiated final product offering the scope for growing pockets of rent. Hitherto, with the exception of a very small group of growers (notably Jamaican Blue Mountain Coffee, St Helena coffee and some varieties from Papua New Guinea), almost all of these rents have been generated and appropriated by parties in the consuming countries, including international traders, roasters, blenders and retailers. The consequence is a growing uneven distribution of income in the global coffee value chain.

Historically, one response to this unequal distribution was for growers and their representatives (usually representatives of national marketing boards) to cartelise and limit supplies to the global market, thereby pushing up producer prices. But this route is unlikely to yield benefits in the future, partly because of the dismantling of state producer associations (an explicit objective of structural adjustment policies promoted by international financial institutions), and partly because of the growing number of new producers (notably Vietnam over the past decade and China in the coming decade).

In the context of the weakness of supply-limiting policies, what scope is there for initiatives designed to promote grower incomes, either through the systematic application of knowledge to the production process or by generating and appropriating product rents (or through a combination of the two)?

Here an important lesson can be learnt from the experience of Illy, one of the most successful and profitable participants in the coffee value chain. It has adopted a systemic approach to the application of knowledge to the whole chain. Even where it has no equity links (notably in growing where it buys from independent farmers) it performs a governance role to ensure that farmers recognise quality coffee and know how to produce it.¹⁹ Rome was not built in a day, and similarly growers and their representatives will need to build these technological capabilities over time. But the relevant lesson to be learnt by buyers from Illy is that whilst some of its inputs involve high-technology, others are much smaller, and of a more disembodied nature, involving changes in procedures not just within individual links in the chain (for example, growing practices), but also between links in the chain (for example, transport). The barriers to entry in this trajectory of technological change are much lower than those involving the high-tech route, and represent a feasible first step for existing growers. Crucially, this systematic application of knowledge to the chain needs to focus on quality and product differentiating characteristics rather than increasing production efficiency, and hence coffee supplies. If the latter approach dominates these inputs of knowledge into production, the position of growers will only deteriorate further.

Growing producer capabilities on their own may improve quality and product characteristics - they are a necessary condition for appropriating product rents. But they are not a sufficient input. For this outcome to be realised, two other developments are necessary. The first is that consumers learn to recognise quality, and the taste nuances of different varieties of coffee, and to relate these to the conditions under which the coffee is grown rather than to the image promoted by roasters and blenders.

And, secondly, as these taste patterns emerge, producers need to protect the reputation of their product, which is based on location-specific taste characteristics, through intellectual property rights. Geographical indications (as used for many products, particularly wines and spirits) can be applied to coffee under Article 22 of the WTO TRIPS Agreement.²⁰ In addition to taking advantage of geographic indicators, growers can also register trademarks (as the roasters have done), but these requires heavy complimentary investments in marketing to be effective.

Each of these initiatives holds promise. But described as such they lack agency, that is political will and the institutional structure through which they can be activated. A key problem here is the undermining and/or demolition of coffee marketing boards in many developing countries. Historically these promoted grower upgrading (albeit to increase efficiency rather than to enhance quality and product characteristics). They were also the building blocks for international forums such as the International Coffee Organisation which promoted and policed supply-limiting agreements. Some forms of substitutes will have to be developed for these bodies if an outcome more favourable to growers is to emerge.

But, perhaps surprisingly, there is also scope for parties in the consuming countries to coordinate outcomes to promote an outcome more favourable to growers. We were surprised to find in our interviews that there is the possibility of a broad coalition of potential partners in helping to educate consumers that product characteristics are defined in the growing rather than the branding link in the coffee value chain. This of course includes the ICO, but interest was also expressed by some very large retail chains. One of these has commissioned market research which shows a lack of consumer knowledge – consumers don't know what they buy, they don't know what to do with it to prepare a good cup of coffee, and they have difficulty in recognising taste variety. In response this retailer is re-laying its shelves, providing leaflets for customers, and introducing new microprocessor-controlled in-store blending and roasting equipment to allow consumers to tailor the product to meet their tastes. At least one of the very large UK coffee houses also believes it has much to gain from more discerning coffee palates and indeed one of these houses already offers FairTrade coffee at a small price premium (of five percent per cup).²¹

The existing roasters and blenders stand to lose if consumers identify coffee variety with individual growers rather than brands. But who else might lose from this strategy of moulding tastes towards location of origin? Here we run into the perennial problem of oversupply of coffee. Those producers who are able to take advantage of differentiating coffee tastes – access to better soils, using organic farming, better cultivars and improved farming and processing techniques - will gain. And it is an opportunity which is not open to everyone, since climate, altitude and soil all influence the taste of the final product. This will leave many “outsiders”. But one of the key lessons emphasised in recent decades of globalisation is that not everyone gains in conditions of over-supply. For many, globalisation means a race to the bottom as producers compete with themselves in markets where barriers to entry are low (Kaplinsky, Morris and Readman, 2001). Coffee is no exception to this and insofar as some coffees remain a commodity, so these producers will be continually subject to the pressures of declining terms of trade.

BIBLIOGRAPHY

- European Sensory Network (1996), "A European Sensory and Consumer Study: A Case Study on Coffee", UK:ESN.
- Bulletin of Institute of Development Studies, Special Issue on "The Value of Value Chains", Vol. 32, No.3.
- Fitter, R. and Kaplinsky, R. (2001a), "Can an agricultural "commodity" be de-commodified, and if so, who is to gain?", Discussion Paper No. 380, Brighton: Institute of Development Studies.
- Fitter, R. and Kaplinsky, R. (2001b), "Who gains from product rents as coffee market becomes more differentiated? A value chain analysis", IDS Bulletin, Vol. 32 No. 3, Brighton: Institute of Development Studies.
- Gereffi, G. (1994), "The Organization of Buyer-Driven Global Commodity Chains: How U. S. Retailers Shape Overseas Production Networks", in G. Gereffi and M. Korzeniewicz (eds.), Commodity Chains and Global Capitalism, London: Praeger.
- Humphrey, J. and H. Schmitz, (2001), "Governance in Global Value Chains", in G. Gereffi and R. Kaplinsky (eds.), IDS Bulletin Special Issue on The Value of Value Chains, Vol. 32, No. 3, pp. 19-29.
- Illy, E. (1980), Factors affecting the cup quality of coffee, London: ICO.
- Kaplinsky, R. (2002), "Gaining From Global Value Chains: The Search For The Nth Rent" in G. Gereffi (ed.), Who Gets Ahead in the Global Economy? Industrial Upgrading, Theory and Practice, New York: Johns Hopkins Press
- Kaplinsky, R. and M. Morris (2001), "A Handbook for Value Chain Research", <http://www.ids.ac.uk/ids/global>.
- Kaplinsky, R., M. Morris and J. Readman (2002 forthcoming), "The globalisation of product markets and immiserising growth: Lessons from the South African furniture industry", World Development.
- Key Note Ltd (2000), "UK Drinks Market, 2000", London: Key Note Limited.
- Maizels, A., K. Berge, T. Crowe and T. B. Palaskas (1998), "Trends in the Manufactures Terms of Trade of Developing Countries", mimeo, Oxford: Finance and Trade Policy Centre, Queen Elizabeth House.
- Maizels, A., K. Berge, T. Crowe and T. B. Palaskas (1999), "The Manufactures Terms of trade of Developing Countries with the United States, 1981-97", mimeo, Oxford: Finance and Trade Policy Centre, Queen Elizabeth House.
- Monopolies and Mergers Commission (1991), "Soluble Coffee: A report on the supply of soluble coffee for retail sale within the United Kingdom", London: HMSO.
- Montavon, R. (1997), "Nestlé in China", Vevey: Nestlé S. A.
- Morisset, J. (1998), "Unfair trade? The increasing gap between world and domestic prices in commodity markets during the past 25 years", The World Bank Economic Review 12 (3).
- Oxfam (2001), "Bitter Coffee: How the Poor are Paying for the Slump in Coffee Prices", Oxford: Oxfam.
- Ponte, S. (2001), "The 'Latte Revolution': Winners and Losers in the Restructuring of the Global Coffee Marketing Chain", CDR Working Paper, Copenhagen: Centre for Development Research.
- Prebisch, R. (1950), "The Economic Development of Latin America and Its Principal Problems", Economic Bulletin for Latin America 7, N. York: United Nations.

- Singer H W (1950), "The Distribution of Gains between Investing and Borrowing Countries", American Economic Review, 15, pp. 473-85.
- Smith, S. (2001), "Ethical Trade Viewed from the South: A Case Study of Ethical Trade Initiatives in the Guatemalan Coffee Sector", M.A. Dissertation, Norwich: School of Development Studies, University of East Anglia.
- Talbot, J. M. (1997a), "The struggle for control of a commodity chain: Instant coffee from Latin America", Latin American Research Review 32 (2).
- Talbot, J. M. (1997b), "Where does your coffee dollar go?: The division of income and surplus along the coffee commodity chain", Studies in Comparative International Development 32 (1).
- Van Dijk, J. B., D. H. M. van Doesburg,, A.M.A. Heijbroek, M.R.I.A. Wazir and G.S.M. de Wolff. (1998), "The World Coffee Market", Utrecht: Rabobank International.
- Wheeler, M. (1998), "What's happened to coffee consumption in Europe?", F. O. Lichte International Coffee Yearbook 1997/98.
- Wood, A. (1997), "Openness and wage inequality in developing countries: the Latin American challenge to East Asian conventional wisdom", World Bank Economic Review, Vol. 11 no 1: 33-57

Table 1. Differentiation in the Roasted Ground Coffee Market: UK Supermarket Prices 2002*

Coffee	Company	Brand	Price \$/100g
Entry level	Own brand	Original	0.86
Quality	Own brand	Gold	1.19
	Douwe Egberts	Le Café	1.50
Espresso	Lavazza	Espresso	1.19
		Espresso Decaffeinated	1.56
	Carte Noire	Espresso	1.73
	Illy	Espresso	2.40
Speciality	Own brand	Kenyan	1.52
		Finest Kenyan AA	1.85
		Costa Rican Yauco Selecto	3.30
	Douwe Egberts	Cappuccino	1.50
	Café Direct	Fair Trade	1.52
	Gourmet Percol	Bird Friendly Single Estate	1.65
		Shade Grown Single Estate	1.65
	Taylors	Café Imperial	1.65
		Decaffeinated	1.92
	Rombout's	Jamaican Blue Mountain	12.00

* UK supermarket prices converted into US\$ at £1=\$1.50

Table 2. Differentiation in the Instant Coffee Market: UK Supermarket Prices 2002*

Coffee	Company	Brand	Price \$/100g	Market share %
Entry level Powders	Own brand	Value	0.50	5
	Maxwell House	Original	2.37	
Entry level Granules	Own brand	Value	0.72	75
		Classic	1.86	
	Maxwell House	Original	2.31	
	Nescafe	Original	2.48	
	Kenco	Rappor	2.48	
Quality	Own brand	Gold	2.66	10
	Kenco	Really Rich	3.21	
	Nescafe	Gold Blend	3.21	
		Black Gold	3.71	
	Douwe Egberts	Continental Gold	3.66	
	Carte Noire	Instant	3.68	
	Gourmet Percol	Rocket Fuel	3.72	
Speciality	Own brand	Gold Decaffeinated	3.24	10
	Nescafe	Alta Rica etc.	3.89	
		Gold Blend Decaffeinated	3.90	
	Café Direct	Medium Roast	3.86	
	Gourmet Percol	Caffe Espresso	3.72	

* UK supermarket prices converted into US\$ at £1=\$1.50

Table 3. Market concentration in global coffee bean trade (millions of bags)

	<i>Turnover in millions of bags</i>			
COMPANY	1989	1991	1993	1995
Rothfos	9.0	9.0	12.0	9.0
E.D. & F. Mann	5.0	4.5	6.0	5.0
Volcafe	4.0	4.0	7.0	6.5
Cargill	4.0	4.0	5.5	3.5
Aron	4.0	4.5	3.5	3.5
Total of top 5	26.0	26.0	34.0	27.5
World Total	71.4	70.6	72.6	66.3
% World Total				
Top 5 firms	36.4	36.8	46.8	41.5
Top 10 firms				62.2

Source: Wheeler 1998

Table 4. Market concentration in European roasting sector

COMPANY	1995		1998	
	Millions of bags	% Euro Market	Millions of bags	% Euro Market
Kraft General Foods Jacobs Suchard (US/German)	8	19.4	7.5	19.1
Nestlé (Swiss)	5.2	12.6	5.5	14.0
Douwe Egberts (Dutch)	4.5	10.9	4.5	11.5
Tchibo (German)	2	4.9	3.8	9.5
Eduscho (German)	1.8	4.4		
Lavazza (Italian)			1.7	4.3
Top 5 firms	21.5	52.2	23	58.4
Top 10 firms		67.8		

Source: Wheeler 1998

Table 5. Share of FairTrade coffees in total market in 2000 (%)

	Share of FairTrade coffee (%)
Luxembourg	3.0
Switzerland	3.0
Netherlands	2.7
Denmark	1.8
UK	1.5
Belgium	1.0
Germany	1.0
Sweden	0.8
Austria	0.7
Ireland	0.5
Finland	0.3
Norway	0.3
France	0.1
Italy	0.1

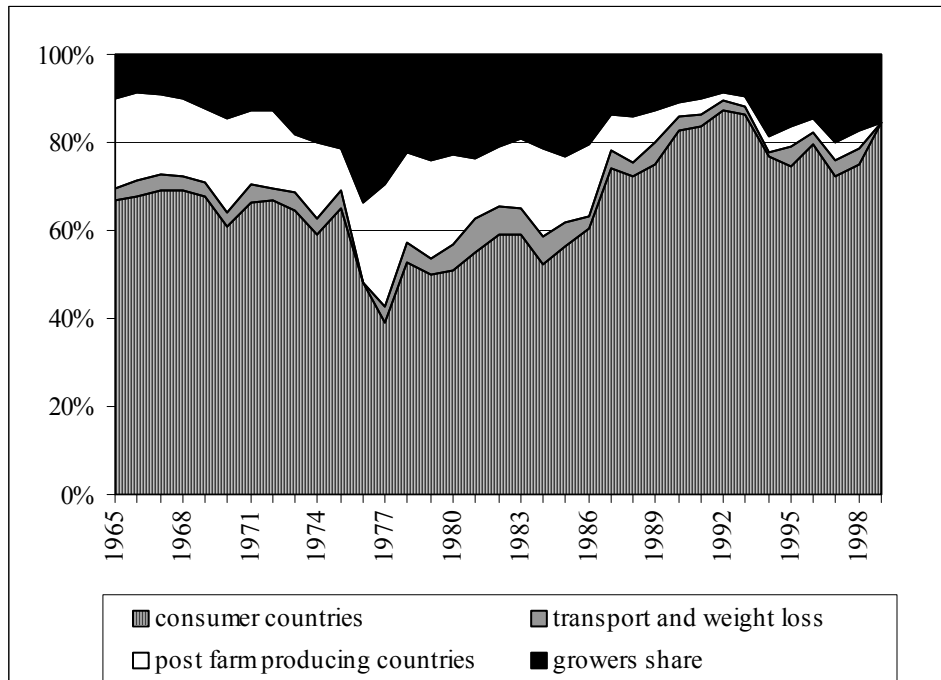
Source: Personal Communication, Max Havalari, Fairtrade Labelling Organisation

Figure 1. Share of final sales value accruing to different links in the coffee value chain (1994).



Source: Calculated from data supplied by M. Wheeler, and reflects the cost structure in 1994.

Figure 2. Inter-country distribution of income: % share of final retail price of coffee



Source: Update of data in Talbot 1997b

-
- ¹ Coffee is mistakenly often described as the world's second largest commodity export after oil. This was the case during the period of high coffee prices, but since the mid-1990s, the value of global exports has been exceeded not just by oil, but also by aluminium, wheat and coal (Ponte, 2001).
- ² For an extended discussion of trends in prices, production and consumption, see Fitter and Kaplinsky (2001a).
- ³ There are essentially two varieties of coffee. Arabicas grow best at higher altitudes and populate the higher end of the markets. Robustas have a higher caffeine content and realise lower prices. See Fitter and Kaplinsky (2001a) for a longer discussion on the nature and role of these two varieties of coffee.
- ⁴ UK prices (as of June 2002, translated into US\$ at £1=\$1.50).
- ⁵ One European retailer, for example, dismissively referred to "Charbucks", reflecting a roasting process which deliberately chars the coffee to provide the consumer with a distinctive taste.
- ⁶ A distinctive feature of these coffee houses is that coffee represents only a small share of their business. The "product" they are offering is not coffee. It is the ambience, the image associated with costly coffee consumption, co-products (such as snacks), relief from the bustle and traffic, and so on. In these markets, the coffee content of the cost of cappuccino is less than six percent
- ⁷ Amongst other sources, see www.coffeeresearch.org, and Illy (1980). For a more detailed discussion, see Fitter and Kaplinsky (2001a).
- ⁸ Talbot (1997a) also provides an illuminating analysis of the functional distribution of income (including also between growers and the state, through the use of export taxes in the 1970s), and a less illuminating discussion of the functional distribution of income in the US coffee processing sector.
- ⁹ The bar chart is constructed for the dry-cherry process, where on-farm processing is minimal; if the wet-process is used, on-farm processing costs increase at the expense of off-farm processing; but in each route, the value of the bean available for sale is constant, at about 30 percent of the final product price.
- ¹⁰ Monopolies and Mergers Commission (1991).
- ¹¹ The views of Nestlé – as evidenced in a publication which it commissioned and disseminated and which has a preface by its CEO are intriguing: "[I]t is significant that the 'buyers' and 'sellers' on the commodities market are mainly speculators, who invest astronomic amounts of money every day in the futures market. They 'play' the market in the hope of making a profit. Their 'purchase' is a simple contract on paper which they own for a short period of time until they decide to sell. In comparison to this type of 'paper' sales of coffee, contracts for the 'physical' sale of purchases of coffee are few and far between. This is amply demonstrated, if demonstration is required, by a brief analysis of the operations in 1992 on the New York Coffee Sugar and Cocoa Exchange, Over a year, a grand total of 621 million 60kg bags were traded. In the same period, total world exports mounted to 55 million bags – only 8.8% if the 621 million bags traded on the Exchange¹¹..... Without a doubt, such speculation determines to a large degree the international coffee price, and in consequence the price paid to the producer" (ibid: 20).
- ¹² Concentration has intensified since 1995. In 1998, the top five companies accounted for 46 percent of total global imports (Ponte, 2001), up from 41.5 percent in 1995.
- ¹³ Between 1975 and 1993, the price of coffee beans fell by 18% but the US retail price went up 240% (Morisset, 1998). Morisset observes that the behaviour of the global coffee market is not dissimilar to other commodity markets in that prices in final markets are sticky downwards when commodity prices fall, but flexible upwards when commodity prices rise. It is not clear whether this generalised trend reflects the same causal factors (the growing asymmetry of concentration in buying and selling markets) in these various commodity markets.
- ¹⁴ Blending is of course also important in balancing the taste of particular coffees, but its primary role lies in freeing the roasters from a particular bean source.
- ¹⁵ After 40 years of investment in a global advertising campaign featuring a mythical farmer 'Juan Valdéz', the Colombian Federation of Coffee Growers has retrenched 300 of its staff of

1,800 and has drastically cut its advertising budget, ‘retiring’ ‘Juan Valdéz’ (Financial Times, 24th April, 2001).

16 Farmers will continue selling coffee at below cost, partly because once planted they are interested only in marginal costs, and partly to sustain their coffee production in the hope that prices will rise in the future. However, the destruction of beans in various countries, and their use as ballast for fires in 2001, suggests that a price of less than \$0.45 is below even the marginal costs of harvesting the beans.

17 Café Direct coffee sells at a 10 percent premium in retail stores, and given the small share of bean prices in final product prices, this provides the scope for a doubling of returns to the farmer.

18 We are grateful to Michael Wheeler for his assistance in this area.

19 For a discussion of the role played by key governors in global value chains, see Gereffi (1994), Kaplinsky and Morris (2001) and the Special Issue of the IDS Bulletin (Vol. 32, No. 3, 2001).

20 TRIPS Article 23 provides additional ‘stronger’ protection for wines and spirits. For these products the wronged parties do not have to furnish proof that the holders of the GI have been wronged (and a “corrective” style/like/kind is also deemed to be a transgression). However, recent discussion in the TRIPS Council suggest that these Article 23 benefits may also be applied in the future to products other than wines and spirits.

21 The fact that the coffee content in the final product is less than six percent means that a doubling of bean costs will have only a small impact on final product prices.