

Agro- Commodity Chains

An Introduction

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1 Introduction

In a development context, the importance of tropical agro-commodities (mainly tropical crops, traded in a bulk form on a global basis) should not need underlining. From around 1930 onwards their main source of supply ceased to be plantations and became peasant. It was thereby mainly on the basis of their cultivation that the mass of the populations of poor countries became connected to development interventions, to their own (colonial and post-colonial) states and to the world economy. Even today, in a context where their terms of trade are experiencing a severe secular decline and where rural development interventions mainly concern food crops, agro-commodities remain a main strand linking the world's rural poor with global product markets. According to the latest available data on world agricultural trade, the main seven tropical agro-commodities (coffee, tobacco, cotton, sugar, rubber, tea and cocoa) still accounted for 61.8 per cent of the total agricultural exports of all LDCs during the period 1996–99 (FAOSTAT 2000).¹

This article outlines some of the special features of value chains for tropical agro-commodities in the first years of the 21st century. This involves a largely implicit comparison with chains for other kinds of products. However, grasping the novel features of these chains today mainly involves a comparison between them and those for the same commodities, during what will be called the 'classical' phase of their development, roughly the period from the 1930s down to around 1990. The discussion will particularly focus on cotton, coffee, cocoa and rubber. Together, the value of trade in these four commodities has always exceeded those of the others mentioned above, while at the same time their value chains have had very similar features. The chains for tea, tobacco and cane sugar differ considerably both from these crops and from each other.

The article employs Gereffi's (1994) basic framework for describing global commodity chains (GCCs), namely in terms of their input/output structures and geography, and their governance and institutional structures. The last of these is interpreted in terms of formal organisational frameworks, rather than 'rules of the game' as it would be in the new institutional economics.

'Rules of the game' are treated in value-chain analysis, but mainly in relation to governance by and for lead agents; indeed, asserting this connection is one of the most distinctive (and original) features of Gereffi's contribution. The article also borrows, though not uncritically, Gereffi's basic dichotomy between 'producer'- and 'buyer'-driven chains. In addition, and in keeping with the development dimension of the topic, it discusses processes, constraints and opportunities for upgrading. The article is divided into two main sections, corresponding to the historical periods 1930–90 and 1990 to the present.

2 The 'Classical' Phase of Tropical Agro-commodity Trade, 1930–90

2.1 Input-output structure and geography

Because it has been based mainly on rain-fed agriculture, the global supply pattern for the commodities discussed here has always been seasonally uneven. At the same time, it has been highly dispersed geographically. In comparison with other products, however, perhaps its most distinctive feature in this period was that most individual sources of supply were state-owned or -regulated export monopolies in tropical countries. These had emerged in some countries for some crops already in the 1920s, but became generalised to most crops in most exporting countries in the two decades after the Second World War. This experience was shared by African and Asian colonies of the European powers and by independent states in Latin America.

State involvement in the propagation and marketing of these crops was associated with a dramatic reduction in entry barriers to their cultivation. State agencies introduced credit-based input systems for smallholders, together with supporting extension services delivered without fees, widely diffused marketing institutions and sometimes price stabilisation mechanisms. On this basis, the production systems for these commodities became reconstituted from a plantation to a peasant basis. However, this transformation carried with it the danger of global over-supply, especially as demand for most of these commodities was either income inelastic (coffee, cocoa) or was inelastic due to substitution by industrial products (man-made fibres, plastics).

To offset this tendency, individual producing states sponsored international producer associations. From the early 1950s the associations for coffee, cocoa, natural rubber and cane sugar initiated efforts to control prices. These efforts took two forms: buffer stock agreements whereby an association bought up world surpluses in order to set a designated price, and export control whereby it set national export quotas instead. These associations were highly successful in controlling prices, for a period of around 30 years (see Bates 1997 on the International Coffee Organisation).

While world supply of these commodities was dispersed between tropical countries, world demand (except, increasingly, in the case of cotton) was relatively concentrated in a handful of industrialised ones. Yet while concentrated geographically, demand was nevertheless segmented in distinct ways. Within particular industrial countries there were often preferences for highly specific blends or combinations of a crop.²

Lastly it is important to note that throughout this period trade was in a bulk form with commodities themselves differentiated in only very simple ways. For trading purposes they were distinguished according to a few basic physical properties (e.g. in the case of cotton, fibre length, strength and maturity), plus the level of presence of impurities, plus the country of origin. Thus individual state marketing monopolies also represented a kind of trademark.

2.2 Governance and institutional structures

Some central elements of the governance structures of these chains have already been touched upon. Major coordinative roles horizontally were performed by state export-marketing monopolies, and at an international level, in the cases of coffee, cocoa and rubber, by producer associations. State export-marketing organisations valorised the production of crops through supplying inputs on credit, supplying free extension services and maintaining quality controls. They ensured uniform quality standards and recovered credit on the basis of their export monopolies. They also exercised coordination through control over prices for both capital inputs

and output, in the latter case through setting prices on both a pan-territorial and a pan-seasonal basis and (outside of the Anglophone world) through season-on-season price stabilisation. These national producer-country-based systems of price stabilisation, and to a large extent also those of product valorisation, depended implicitly on a degree of producer-country control over world prices. Obviously, domestic price stabilisation would become difficult if prices were to fall in a sustained way on the world market.

Although national export organisations coordinated these chains horizontally, they did not do so vertically. This role was performed instead by a small number of international trading or trading-brokering companies. These companies, head-quartered in the US (e.g. Cargill) or in Europe's traditional trading centres (E. D. & F. Man, Louis Dreyfus, Paul Reinhart, etc.) operated mostly on a bulk basis across several different commodities, enabling them to take advantage of economies of scale in transport, storage and finance. The form of vertical coordination that they undertook, at least in the period 1930–90, was mainly of an 'arm's-length' kind. It involved a loose system of multiple and often quite temporary contract-based relations with particular suppliers and end-users, which covered only the exchange of the commodity in question. Sales were usually in a forward rather than spot position, since national exporters could guarantee predictability of quality (and, in a few cases, volume), and were often arranged on a tender basis. International traders were only very exceptionally involved in direct production.

The major coordinative mechanisms linking suppliers with international traders were the simple and inclusive 'quality conventions' for the commodities in question, used to differentiate the product into various grades according to national origin and certain crude physical properties of the commodity itself. The grading matrixes arising out of these conventions were the bases for the systems of price premia and discounts prevailing in the trade. Given their focus on crude physical properties, easily subject to modification by producers themselves, it comes as little surprise to find that the matrixes in question were often constructed with producers' or producer-country governments' involvement. Although traders also

played an important role in the determination of the standard quality matrix for rubber and cocoa, that for cotton is based on the US Department of Agriculture classification – in turn devised by the main producers' organisation of the US, for a long period the world's leading exporter. Producers not only participated in setting quality conventions, but in the process also managed to transfer some of the cost of monitoring quality to traders. These were usually obliged to monitor quality/conformity with product description on an ex-post basis by sampling.

Despite the importance to it of the distinction between producer- and buyer-driven commodity chains, there is surprisingly little discussion in GCC analysis of producer-driven chains. In Gereffi's original (1994) discussion they are identified with highly capital- and technology-intensive industries 'in which (manufacturing) TNCs or other large integrated industrial enterprises play the central role ...What distinguishes 'producer-driven' production systems is the control exercised by the administrative headquarters of...TNCs.' Unlike in the case of buyer-driven chains, there is no separate discussion of the governance structures that this involves, except to suggest that they entail detailed control over dedicated subcontractors. These agro-commodity chains, in the period described here, did not resemble this pattern at all. They were not driven by manufacturing TNCs and did not involve 'dedicated' supply relations of any kind. Market relations predominated over hierarchical ones. But producers participated actively in setting the rules of the game, both in price terms and in terms of arbitrating quality and the relation of quality to price.

After 1980, 'producer-drivenness' in these agro-commodity chains began to wane. This reflected a number of developments, of which the first chronologically was the collapse of international producer cartels. In most cases this was the result of the emergence of major new producing countries, mostly in Asia, attracted to production by the price levels that the cartels achieved. These countries either could not be accommodated in existing cartels, or – where they were – could not be made to follow their rules. As a result, markets became saturated. As producers subsequently lost control, so international traders became more powerful. On

the other hand, where the latter now drove these chains, it continued to be mainly in a hands-off way.

Other than the frameworks of public intervention and regulation at national level, and of collective international regulation between producing states, the main formal institutions playing a role in these chains were international commodity exchanges and the futures markets organised around them. Most transactions between international traders and industrial consumers were organised on a private treaty basis and by-passed commodity exchanges (usually based in London or New York). But traders, consumers and organisations of producers of tropical commodity based in sub-tropical regions of developed countries (the US and Australia in the case of cotton) occasionally sold surpluses or made up deficits through these markets. In addition all three groups, as well as private speculators, used futures markets to hedge risk and seek windfall gains.

2.3 Upgrading opportunities

Participation in these chains provided suppliers with clear but relatively restricted opportunities for upgrading. Since these chains' guiding regulative and pricing framework was premised on promulgating the interests of state-led smallholder production, there were no incentives for product upgrading beyond a level attainable by 'properly supervised' smallholder producers. In the case of cotton, for example, product upgrading simply corresponded to assuring good quality seed supply (of long staple seed where this could be grown, of short staple seed elsewhere), applying pesticides in a way which minimised crop contamination, picking the crop only when it was mature, and selling it in a clean state.

Process upgrading towards more capital-intensive production forms was possible, for example by irrigating land in order to produce two crops a year, by developing more efficient seeds/seedlings, by employing more intensive pesticide regimes and by introducing mechanical picking. However, the main rewards this entailed related to savings on labour – and were therefore confined to sub-tropical regions of developed countries where labour was costly.³ Some prevailing regulative and pricing frameworks even further penalised mechanically picked crop

with a price discount, on the assumption that such crop was more likely to be damaged. Thus, process upgrading was of little relevance in developing countries.

The prevailing regulative system facilitated three types of functional upgrading, which national producers in developing countries exploited in a widespread manner. The first of these was to occupy new commercial functions/roles, over and above those of selling crop to international traders on a spot basis and by private treaty. As already indicated, these roles included using forward and tender f.o.b. sales (both possible because national regulative systems allowed rough predictions of volumes, grades and delivery dates) and appointment of overseas agents to make direct sales to industrial processors, thus by-passing international traders. In the case of a handful of better-off developing countries it also meant using futures markets to hedge risk.

The second was to gain control of part of the international transport of agro-commodities by establishing their own shipping lines. This was underwritten by the UNCTAD Code of Conduct, under which developing countries secured the right to transport up to 40 per cent of their foreign trade through their own domestic lines.

The third was the localisation of raw material processing. There are some forms of primary raw material processing in relation to these crops that *had* to be undertaken in tropical countries in order to qualify them for export. These include ginning for cotton and hulling to produce 'green coffee'. However, secondary processing (e.g. roasting in the case of coffee, grinding in the case of cocoa) was normally confined to developed countries. Amongst the group of agro-commodities considered here cotton is an exception, since spinning industries – which have low capital requirements – were present in some developing countries well before the Second World War. Otherwise, national producers strove to localise secondary processing of agro-commodities (and other raw materials) throughout this period.

However, there were two practical reasons why localisation in the case of this group of agro-commodities was not pursued as actively as in those

of other raw materials. One was that processor and consumer preferences normally favoured *blends* of different national varieties, implying generally lower returns in export markets for single variety-based products.⁴ A second was that many secondary processing technologies prevailing in these chains made it imperative that processing took place within a short time of end-consumption. The effects were similar in both cases: secondary processing in developing countries themselves was practical only for local consumption. For national producers to upgrade into secondary processing for developed-country markets, they would have had to develop new technologies or relocate to these markets themselves. Both options were extremely resource-demanding, while undertaking the second seems likely to have threatened the consent of key importing countries to the continuation of international commodity agreements. Thus, while there were widespread and generally successful attempts to upgrade into secondary processing by developing-country producers, these were almost all confined to production for local and regional markets.

3 Agro-commodity Chain Restructuring since 1990

3.1 Input-output structure and geography

The last decade has seen a partial disintegration of agro-commodity chains as they were organised between 1930 and 1990, and their reconstitution in new forms. There now appears to be a much greater degree of 'filamentation' of chains, and a greater diversity in the principles governing their organisation. Likewise, old upgrading opportunities have become more restricted and new ones have opened up.

As far as chains' input-output structures are concerned, the clearest changes are noticeable in relation to the supply function. As a result of the implementation of structural adjustment policies, most producer country markets have been liberalised and former state marketing monopolies commercialised, privatised or liquidated. A variety of different local market structures have developed subsequently, of which three are most common. Either free competition has ensued over an entire territory between large numbers of private exporters, often followed after a few years by a

process of differentiation/re-concentration. Or, national markets have been divided up into distinct geographical monopolies, each let to a large-scale – often foreign – private trader. Or, privatised former state marketing monopolies have remained powerful and have retained substantial, if not dominant, market shares. The first and second of these scenarios appears more common than the third (for cotton in Africa see CIRAD 2000). Liberalisation has been concomitant with the death of distinctively national regulative or coordinative systems, at least in the case of these first two scenarios. National governments in developing countries are now mostly unable to control or predict crop quality or availability (in terms of volume and timing). In turn, this has undermined the effectiveness of attempts by producing countries to revive international commodity agreements. Consequently, secularly falling prices have been accompanied by increasing price instability both in international and domestic markets.

Changes on the demand side have been equally profound, although more varied. Mostly, they follow from the supply-side changes already mentioned. The phenomena of market saturation and falling prices following from the breakdown of regulation by international producers has been accompanied by that of falling supply predictability, arising from the breakdown of national market regulation. For international traders, these developments have translated into falling margins and increased risk of contractual non-compliance. A general consequence has been a strengthening of the bargaining positions of upstream processors.

International traders have responded to this scenario in different ways. Some have dropped out of, or reduced their involvement in, international commodity trade. For example, the owners of one of the world's oldest and largest agro-commodity trading companies, E. D. & F. Man, sold up during 1999–2000.⁵ Other former traders have converted themselves into an exclusively brokerage role, at least for those commodities most plagued by price instability. Others again have maintained an existence as traders, but have diversified downstream towards secondary processing, or upstream towards crop production. The former is a trend mainly in cocoa, the latter mainly in coffee.

Greater integration of trading and secondary processing roles in cocoa can also be seen as a spread of what Sturgeon calls 'turn-key production systems' to agro-commodity sectors. Branded marketing's heightened importance in many sectors during the last two decades has been widely noted, including by Gereffi (op. cit.), who linked it to new types of out-sourcing and the consequent emergence of 'buyer-driven commodity chains'. According to Sturgeon (2000), however, this development carried within it a kind of counter-tendency towards the emergence of powerful 'contract manufacturers' specialising in manufacturing processes that could be used to supply a series of different customers, and in the supply of related producer services. Fold (2002) describes a similar train of events in the cocoa-to-chocolate segment of the cocoa chain. Chocolate manufacturers have increasingly specialised in designing, 'finishing', branding and marketing chocolate products, while contracting-out to cocoa grinders (on a JIT basis) the supply of dedicated intermediate chocolate products. While from the perspective of value-chain analysis this can be validly seen as chocolate manufacturers successfully externalising one of their lower-profit functions, from the perspective of Sturgeon's analysis it can be also seen as grinders successfully internalising a higher-profit one. While it is unclear if this process creates incentives for grinders to enter international trading (see below), it certainly appears to increase incentives for traders to enter grinding.

In the downstream coffee chain, where there is only a single industrial process, it has been roasters themselves who have expanded their branded marketing role. In this process, the traditional major players – especially in soluble (instant) coffee – have rationalised, and appear to have insisted that international traders continue to supply them at the same levels of predictability and reliability that predated international and national market liberalisation. In this case, it has entailed international traders diversifying upstream into direct production (usually into premium varieties).⁶

At the same time, the coffee chain has seen the rise of a new generation of mini-roasters, mostly producing for the 'gourmet coffee' market and some of them dedicated to specific specialised coffee outlets. This reflects a broader process of

differentiation of consumer tastes for the commodities under review, notable also in the rising markets for luxury chocolates, 'free trade coffees', ecological cottons, etc.

3.2 Governance and institutional structures

Linked with these changes have been ones in chain governance structures. In most developing countries, states no longer play the role of valorising peasant production through credit-based input schemes, extension services, national systems of quality control and pan-territorial pricing. Nor do they coordinate exports. There are some exceptions, for example Ghana for cocoa and Mali for cotton, but reforms are in train here too. Private agents have taken on these functions on a localised basis in a few places where they enjoy monopolies, for example through contract farming schemes. And in a few instances – such as that of cotton in Zimbabwe – private marketing oligopolies with a national scope have arisen, meaning that important aspects of earlier systems of coordination have been preserved (Larsen 2002). But, as already indicated, international horizontal coordination between producing countries has disappeared almost entirely.

Vertical coordination by international traders in 'arm's-length' forms persists and, in many respects, has become more important in this context. But it is now accompanied by a proliferation of more direct (sometimes very direct) forms of vertical coordination, some of it by international traders themselves. In producing countries offering large volumes, but where local exporters are financially weak and only able to offer small volumes of crop, or in a few other producing countries considered strategic because they offer a unique crop variety, international traders have often moved into direct procurement. In a handful of producing countries viewed as especially strategic because they command very high shares of world production, they have even moved into local secondary processing – mainly to create political goodwill.⁷ At the same time, and because direct procurement is very resource-intensive, most international traders' overall geographical coverage is shrinking.

A second, increasingly important new form of direct vertical coordination involves the establishment of

relations between specialised industrial processors based in developed countries and more or less dedicated (groups of) suppliers in developing countries. In one version of this relation, the impetus arises mainly from the developed-country processor and takes the form of a more or less extended period of practical collaboration and, finally, certification. This is the case with the new range of 'estate coffees', as well as with the emergence of new homologised rubbers, especially cultivated for so-called 'single-rubber tyres', introduced by European tyre manufacturers partly to avoid costs of blending (Daviron 2002). The other version of this relation is similar, but is initiated by already well-resourced (groups of) private producers in developing countries who offer themselves as longer-term partners to coffee mini-roasters, upper-market European cotton spinners, etc. There is no doubt that the share of world trade coordinated in these ways is increasing in importance.⁸

In their 'classical' periods, agro-commodity chains were coordinated on the basis of simple, inclusive quality conventions linking certain physical crop qualities chosen by producers with price. Today, the classical matrixes used to calibrate differences in crop quality are being undermined or by-passed. They are being especially undermined in their national origin dimension, which has been almost abandoned for some agro-commodities. Also with regard to physical description/quality etc., increasing proportions of most agro-commodities are being sold through international traders in undifferentiated forms. This process has gone furthest in cocoa, where the only nationally denominated cocoa still recognised is Ghanaian (which happens to be the only producing country where a state marketing monopoly still plays an important role) and where no other generic quality classification is used at all. In the case of cocoa this is linked to a change in processing technology downstream, whereby poor bean quality can be compensated for by longer processing, although whether quality degradation or technological innovation came first is unclear (see Fold 2002).

At the same time new 'buyer-' or, perhaps more accurately, 'user-driven' quality conventions are proliferating. These take a variety of forms, corresponding partly to a distinction between

'domestic' (identification by region or estate of origin) and 'civic' (identification by the 'fairness' of the transaction) conventions, but also including conventions defining quality in entirely 'private' ways, for example in terms of compatibility with dedicated industrial processes (e.g. homologised rubber). Besides being user-driven rather than producer-driven, this group of conventions is novel for agro-commodities in two other ways. First, they no longer embody a transparent link to a publicly agreed matrix of price premia and discounts; the value to the producer of the quality attained is determined simply by private negotiation.⁹ Second, they are usually associated with buyers demanding quality monitoring on an ex-ante rather than an ex-post basis, and through procedures that involve process certification rather than product testing (e.g. ensuring that estates have EU regulation-conforming pesticide residue regimes, rather than that each consignment of coffee beans has a residue content not exceeding that permitted). Underlying this trend is a steady increase in the stringency of the food safety/sanitary and phytosanitary requirements for access to developed-country markets – or at least for differentiated products. This makes their monitoring increasingly costly, and thereby leads to buyers supporting measures which entail a transfer of these costs to producers, in a way paralleling processes in other buyer-driven value chains.

The institutional structures of classical agro-commodity chains have been preserved by and large during the last decade. But it appears to be widely accepted that commodity futures markets are taking on an increasingly autonomous existence from the markets for physical commodities, and that the roles of producers and industrial consumers in them have diminished. Volumes traded on futures markets have increased much faster than physical volumes, and price movements reflect (directly or inversely) trends in other financial markets, rather than simply in crop supply and demand. It is too soon to say whether new, distinct institutions will emerge in relation to the new forms of vertical coordination described, or what they are likely to look like.

3.3 Upgrading

Most of the typical forms of producer upgrading that were characteristic of the classical agro-

commodity chains are still available as options, at least where elements of local horizontal coordination remain. As an increasing share of these trades is in commodities taking an undifferentiated form and sold on a spot basis, and as futures markets have taken on a life of their own, so certain price spreads have increased. These include those between good and undifferentiated quality crops, between forward prices (with or without tendering) and spot prices, between prices from direct sales through agents and prices from sales through international traders and between returns from futures markets and returns from crop markets. Therefore, the relative rewards for product upgrading and for upgrading into new commercial functions in traditional ways have increased. On the other hand, absolute returns have still diminished.

The economics of the localisation of processing of traditional versions of the agro-commodities in question appear not to have undergone much change in the last decade. As indicated, there are isolated examples of international trader-processors increasing their investment in local processing, but probably less for direct economic reasons than for political and indirect economic ones.¹⁰ A relatively new trend, but one still consistent with the economics of the classical period, is for a few well-off developing-country-based trader-processors to upgrade by delocalising part of their processing activities to developed countries, as has been the case with the leading Ivorian-owned cocoa company. This tendency is associated with privatisation, which has allowed a handful of resourceful former parastatals to raise new capital in financial markets.¹¹

The new opportunities for producer upgrading arising from the emergence of novel forms of vertical coordination, themselves regulated through user-driven quality conventions, involve a unique combination of product and process upgrading. On the basis of strategic alliances with developed-country traders or secondary processors or – in some cases – retailers, developing country producers are enabled to develop differentiated as opposed to traditional commodities. In many cases, as already indicated, this is linked to an obligatory process upgrading, for example to production processes conforming to developed country

phytosanitary or pesticide residue requirements. Such types of process upgrading do not necessarily involve the adoption of capital-intensive technologies such as irrigation, etc., but they may only be economic for developing country producers who have already achieved certain economies of scale on the basis of some of these technologies.

As yet, the broader economics of this kind of upgrading are still unclear. Certainly, costs are clearly high, while rewards are unpredictable and not transparent. In addition, where the product aspect of such upgrading is into end-user dedicated products, this may be associated with 'competency traps' stemming from their non-transferability to other end-users.

4 Conclusion

Daviron (2002) has summed up the organisation of classical agro-commodity chains under the rubric '*paysan, produit, pays*': smallholder production of largely undifferentiated crops under national systems of regulation. The glue holding this organisation together was a simple, inclusive quality convention based on product standards. Today, many of these chains are in a process of semi-dissolution. At their margins are groups of small- or large-scale commercial farmers producing partially differentiated commodities on the basis of private forms of vertical coordination. The glue holding these chains together is a series of relatively opaque and exclusive quality conventions based on process standards.

The classical agro-commodity chains offered smallholders broadly-based but shallow upgrading possibilities, the rewards of which were calculable and predictable. The new chains offer more narrowly-based but deeper rewards, although the basis of the latter's calculation is less transparent. It is almost certainly impossible to envisage a return to the system prevailing in 1930-90. This makes the policy challenges posed by the new upgrading opportunities more acute. Two in particular stand out: first, how to devise forms of regulation that can make these opportunities more socially broad-based and, second, how to devise ways of ensuring that the rewards from meeting them become more predictable. The first of these challenges is the more pressing, and seems likely to involve addressing two sets of questions: finding less demanding

alternatives to current phytosanitary standards, and generalising the experience of institutional

solutions to the provision of 'common good' services to smallholders.

Notes

1. The figure for LDCs has remained consistently high over recent decades; the corresponding figure for 1961–65 was 56.3 per cent and for 1976–80 67.7 per cent. Although their share of the agricultural exports of Latin America and the Caribbean has dropped by more than half during the period 1961–65 to 1996–99 (from 65.2 to 31.4 per cent), their share of the agricultural exports of Africa rose from 52.8 to 59.1 per cent over the same period (FAOSTAT 2000).
2. This persists today, for example Tanzanian coffee plays a central role in the market in Germany, but nowhere else, etc.
3. Heijbroek and Husken (1996:28) cite international comparative data from 1995 on net costs per kg, lint, which show that – despite very different production processes – US, Indian and Pakistani cotton had broadly comparable costs. Australian costs were a third lower, but Chinese costs were much lower still.
4. Of course there are exceptions. For example, Ghana cocoa is considered to be of such a superior flavour to other cocoas that products based solely on it command a premium.
5. The business continues under the old name but on the basis of a management buy-out.
6. The main example is the trader Neumann's expansion of own production in Latin America.
7. E.g. Cargill and ADM in the cocoa sector of Côte d'Ivoire, the world's leading supplier.
8. In Kenya, estate coffee production corresponds to ca. 40–60 per cent of total production; in Tanzania it is set to rise from a pre-liberalisation level of 5 per cent to around 20 per cent (Ponte 2002).
9. In the case of 'fair trade' there may be a link to broader public debates.
10. Secondary economic grounds are probably present in the case of Cargill and ADM's investments in 'origin grinding' in Côte d'Ivoire. The combination of increasing world price volatility, the role played by Ivorian supply in world price formation, and the high volumes of local beans that these companies command may mean that withdrawing large amounts of beans from Northern markets (where, *ceteris paribus*, grinding them would normally realise a price 100 per cent higher) in order to grind them locally will generate certain benefits under specific circumstances.
11. See also Larsen (2002) on diversification by the former Zimbabwean cotton parastatal.

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