

Ghana and the cocoa marketing dilemma: What has liberalisation without price competition achieved?

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Key points

- A survey of farmers indicates that partial liberalisation has ensured prompt cash payments, guaranteed a fixed minimum price for farmers through the season; and offered more choice of buyers.
- In high-production areas, many growers would welcome full liberalisation.
- The survey results also indicate that farmers are not using the full extent of local seller competition.

Since the turn of the millennium, rural Ghana has achieved an impressive growth rate and has seen a notable reduction in poverty. The cocoa sector, after a period of stability where total production has stayed at around 347,000 tons (the average for the 1991/2002 decade), has rebounded since early 2000, and played a key role in these achievements.

As the second largest producer of cocoa in the world after Côte d'Ivoire, Ghana remains the only country where the state retains control of the entire volume of exports, and an overwhelming presence in the internal market. Some elements of competition were introduced in 1993, and there are now up to 25 private licensed buying companies (LBCs) purchasing the crop in all growing regions. Despite this partial liberalisation, the Cocoa Board (called Cocobod) continues to define a floor price that is, effectively, the price paid to all farmers everywhere in the cocoa belt, and its former purchasing subsidiary (the Produce Buying Company) remains the predominant company to which farmers sell their cocoa.

Has this hybrid system of liberalisation without price competition affected farmers' production? Has it provided the correct incentives to sustain cocoa-dependent livelihoods of small-holders in Ghana? The Ghana Cocoa Farmers Survey (GCFS), in which one of the authors of this Brief (Marcella Vigneri) was involved, surveyed 497 farmers about their experience with partial liberalisation, asking them about choices they have in selling their produce. The



Farmer from Bogoyampa, Brong Ahafo, who participated in Ghana Cocoa Farmers Survey, 2002

survey took place between July and September 2002, and was repeated between October and November 2004 with 441 of the same farmers.

Our analysis of the data from the survey has aimed to establish whether LBCs' buying strategies affect farmers' selling choices, and if so how; and whether farmers' marketing choices affect their production decisions. Our results suggest that:

- Total cocoa production increases with competition;
- The availability of cash for farmers remains the key factor driving farmers' choices of whom to sell to; and
- The next most important reason for selling to a specific buyer is the availability of credit for inputs (or subsidised inputs).

Background and context

Until 1992, Ghana's cocoa sector was characterised by a marketing system fully controlled by the state owned Cocobod. This system has since been internally deregulated, with a number of local and foreign owned trading companies, known as LBCs, emerging in all growing areas of southern Ghana. A key feature of the Ghanaian cocoa marketing system is that the Cocobod continues to fix the floor price for all domestic purchases of the crop: although all LBCs are legally entitled to buy the crop at a price above the one announced by the board, the premium prices are rarely paid and of little value. Competition among buying companies comes from the volume of total purchases, and is generated mainly through non-price strategies (for example, prompt cash payment and greater, but ad hoc, provision of input subsidies and credit).

The structure of the internal marketing system

In Ghana, there are approximately 2,700 locations where cocoa is bought by the LBCs, then checked, graded, bagged and uniquely sealed by the state-owned Quality Control Division (QCD). These buying centres are geographically located in approximate proportion to the quantity of cocoa produced in each region. They have regular opening hours and are operated by the LBCs, who employ purchasing clerks from the local communities to pay farmers the official producer price. From the centres, the cocoa is taken to the district depots (collection points). Once an adequate quantity of sealed cocoa

is available, the LBCs will transport cocoa to one of three takeover points where, subject to passing a final quality control, the beans are bought by the government-owned export subsidiary, the Cocoa Marketing Company (CMC), at a fixed price.

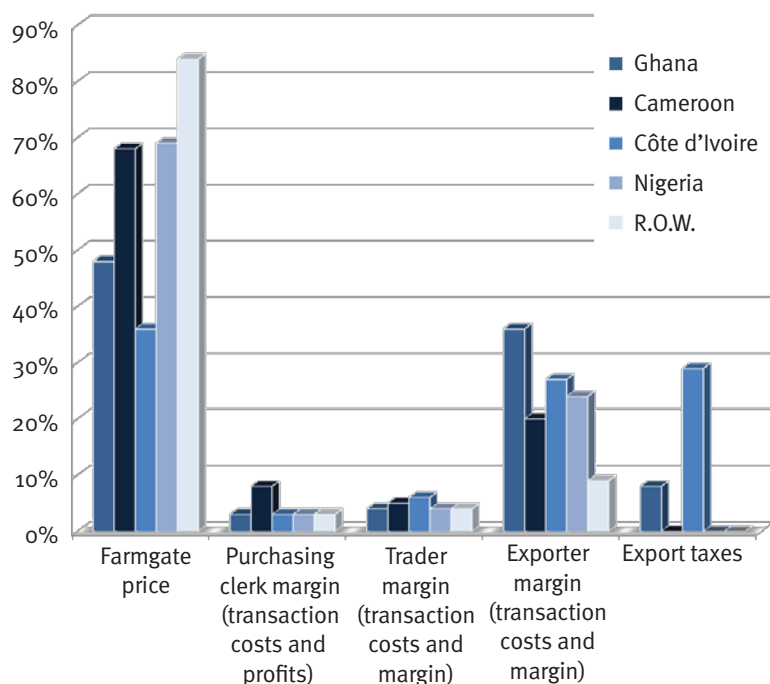
Figure 1 shows a snapshot of the 2002-03 main crop season markup margins at each stage of this process in Ghana. These are compared to the margins applied in the three other West African countries producing cocoa (Cameroon, Côte d'Ivoire and Nigeria), and in the rest of the world (an average for Brazil, Ecuador, Indonesia and Malaysia). Ghana stands out for its high export margins, nearly double the Ivorian ones, and almost five times higher than those applied in the rest of the world. This could partly explain why Ghanaian cocoa farmers have been receiving a lower share of the world price than farmers in other regions.

Who benefits from partial liberalisation?

Fourteen years into the liberalisation of the internal marketing system, the debate over which actors in Ghana's cocoa sector have benefited from this system is still ongoing. There are three main possible beneficiaries:

- The state, which maintains a monopoly on all exports and makes a substantially higher return from taxation than other cocoa regions;
- The traders, who compete for the purchase of higher volumes of the export crop on non-price terms throughout the cocoa belt areas; and
- The farmers, who are guaranteed a minimum floor price regardless of their geographical location.

Fig 1: Margins in the cocoa supply chain – 2001/02 main crop



Source: adapted from Abbott et al. (2005)

Our preliminary analysis of the data from the GCFS (Box 1) suggests four points:

- The Produce Buying Company (PBC), the former state-owned purchasing arm of Cocobod, remains by far the largest buyer across all regions, with 62% of the farmers surveyed in 2002 and 59% in 2004 choosing PBC as their most important buyer (in terms of quantity);
- In areas of larger total production (i.e. the Western region), more growers would welcome full liberalisation; they report that this would benefit all farmers by means of higher prices;
- Farmers do not appear to be utilising the full scale of local competition, through, for example, diversifying their sales of cocoa across the variety of buyers actively operating in each village; and
- Although the number of available buying companies in each region has increased between the two survey years (on average by 8%), the number of LBCs to whom farmers sold their cocoa has actually decreased (on average by 18%), with more farmers selling to only one buyer (see Table 1).

Though there are more than 20 buying companies operating in each year that the survey was carried

out, five dominate the local market for cocoa purchases: PBC (formerly state owned), Kuapa Kokoo (a farmers' based cooperative working on Fair Trade principles, which has seen unprecedented growth), Adwumapa (a Ghanaian buying company), Olam and Armajaro (both foreign-owned companies, from Singapore and the UK respectively). Virtually all of these companies were chosen by farmers because they paid promptly and in cash, they offered credit, or both.

Methodological challenges

Using econometric techniques, we analysed these data to establish whether LBCs' buying strategies affect farmers' buying choices, and if so how, and whether farmers' marketing choices affect their production decisions. In answering these questions, we faced two major analytical challenges.

The first was how to identify what determines production and marketing choice. Production and marketing choices are likely to be determined by the same subset of variables (i.e. the same explanations may be given by farmers as reasons for each choice), potentially limiting the correct use of quantitative analysis. Two methodological alternatives could counter this: one, to use the panel dimension in the data to infer the effects of marketing choices in 2002 on production outcomes in 2004; and two, the instrumental variable approach, to identify separately what affects the two choices before trying to assess the effect of one (marketing) on the other (production).

The second challenge is embedded in the nature of the data currently available to conduct the analysis. The central objective of the research was to assess whether the Ghanaian cocoa marketing system is beneficial to the actors involved. This requires an understanding of the links between producers and buyers — i.e. the actual transaction between farmers and buyers. However, the original surveys focused on farmers' behaviour and did not collect detailed information on traders' choices. For that reason, we are mainly investigating farmers' outcomes in terms of production. ODI and the University of Sydney are planning new work to expand the scope of the analysis on market formation (see Box 2).

Key lessons for policy-makers

Who you sell to has a clear impact on production

Production volumes in 2004 were up to 8% higher for farmers who in 2002 chose to sell to a combination of PBC and other LBCs, as opposed to PBC alone. This result is further corroborated by an analysis of the effect of changes in selling choices between 2002 and 2004 on production levels.

Farmers who sold to private companies and to PBC in both years sold 6% more cocoa bags than farmers who switched from selling to PBC only (in 2002) to a combination of PBC and private (in

2004), and up to 22% more than the farmers who only sold to PBC in both years.

Prompt payment drives selling choices

Cocoa smallholders have little access to credit or cash resources. Allowing farmers to have more places to buy from in each village (regardless of what their final choice may be) raises the possibility for smallholders to shop around for the best deal (for example, by selling to those LBCs who pay promptly, or by avoiding those they consider less trustworthy — it was frequent for farmers to report that scales are often adjusted to underweigh their cocoa bags).

LBCs tend to cluster in areas of higher concentration of large farmers

LBCs target district areas where they can lower operational costs by buying from fewer, but larger, producers to cut down on the number of transactions needed to, at least, break even. This might have important repercussions on the geographical distribution of the benefits from the present partially liberalised marketing arrangement.

Remoteness of villages affects farmers' choices

Our analysis shows that greater distance between the farm gate and the main daily market area (our proxy for measuring the extent of geographical isolation of farmers) increases the chance of cocoa sales

Box 1: The Ghana Cocoa Farmers Survey

The survey was designed and first undertaken in 2002 when M. Vigneri was at Oxford University leading the DFID funded project: Coping with Agricultural Reforms in the 1990s: The case of cocoa farmers in Ghana. The fieldwork was carried out in three regions: Ashanti, Brong Ahafo, and Western. These areas combined a diverse mixture of new and old cocoa growing areas, therefore covering a representative sample of the farmers' population. The survey featured questions on production, land, labour, non-labour inputs, and customary land rights. A unique feature of the survey was the collection of data on farmers' perception of the marketing system, their opinion about possible external marketing changes and details regarding their selling and marketing arrangements.

The baseline survey was replicated in 2004 with funding from the Global Poverty Research Groups by a team from the Centre for the Study of African Economies (Oxford University), with a revisit to 441 farmers from the initial sample of 497 farmers.

Box 2: Studying market links

Markets are too often taken for granted. A research collaboration between ODI and the University of Sydney aims to study more systematically how markets are formed in the local supply chain of cocoa producing countries. When looking at market transactions, the focus should be centred on the links between producers and buyers, rather than on the separate behaviour of actors that meet at the transaction stage. This calls for the need to develop new approaches of survey design and data collection to look explicitly at market relations: at the behaviour, governance, and subsequent profits obtained by all actors involved in the market transactions for the export commodity. The major methodological challenge of this approach consists in identifying a representative sample of the links. One possible approach could be connecting directly both farmers' and buyers' surveys, with information on LBCs behaviour being collected in the first instance, followed by the analysis of producers' choices among different potential buyers.

Table 1: Production and marketing indicators from the GCFS

		Survey year		Changes
		2002	2004	
Ashanti (obs.: 113)	Production (average kg)	1,029	1,072	4%
	No. of active LBCs (average village)	5.34	7.34	37%
	No. of LBCs farmers sold to (average village)	1.36	1.16	-15%
	% farmers selling to one LBC only	67%	87%	19%
	% farmers selling to PBC as 1st buyer	52%	52%	0%
Brong Ahafo (obs.: 98)	Production (average kg)	1,004	1,216	21%
	No. of active LBCs (average village)	6.66	7.71	16%
	No. of LBCs farmers sold to (average village)	1.4	1.2	-14%
	% farmers selling to one LBC only	65%	82%	16%
	% farmers selling to PBC as 1st buyer	79%	76%	-3%
Western Sefwi (obs.: 110)	Production (average kg)	1,616	2,724	69%
	No. of active LBCs (average village)	10.42	9.94	-5%
	No. of LBCs farmers sold to (average village)	1.71	1.33	-22%
	% farmers selling to one LBC only	52%	75%	23%
Western Wassa (obs.: 122)	% farmers selling to PBC as 1st buyer	55%	45%	-9%
	Production (average kg)	1,388	1,698	22%
	No. of active LBCs (average village)	8.52	8.57	1%
	No. of LBCs farmers sold to (average village)	1.34	1.07	-20%
	% farmers selling to one LBC only	73%	93%	20%
	% farmers selling to PBC as 1st buyer	66%	64%	-2%



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to PBC (which is still obliged to have buying centres in all cocoa growing areas). Statistically, however, the effect of distance is minor.

Conclusions

The recent success in sustaining a continuous path of economic growth and poverty reduction in Ghana has been partly ascribed to the recovery of the cocoa sector: within rural areas, poverty rates increased in the savannah, while decreasing in the forest and coastal areas (where cocoa production prevails in the south of the country). Between 2002 and 2004 (the two years of the survey), total cocoa production rose from 367,000 tons to 665,000 tons, levelling off since.

One possible explanation for this recent cocoa upsurge is the shift in production areas from 'old' regions into emerging ones. Our research investigated whether the partially liberalised marketing system has a role in explaining the dramatic recovery in the sector: was there evidence that the present arrangement provides a superior combination of competition and state regulation? Our findings, based on primary data analysis, show that liberalisation has been good

for producers on at least three different levels:

- providing farmers with more choice of buyers;
- delivering cash payments promptly; and
- maintaining stability in producer prices throughout the season.

The question for policy-makers is whether partial liberalisation is the way forward, and whether producers are getting the right incentives from this arrangement to invest in better (and sustainable) farming practices. Both of these aspects are key topics being considered in the future research agenda, which will look in more detail at: (i) the extent to which the benefits achieved in Ghana are a result of the export monopoly and the strong presence of the public sector in the internal market; (ii) how marketing transactions take place along the value chain (Box 2); and (iii) the comparative benefits of partial compared to complete liberalisation across countries (with comparative case studies in Indonesia and Brazil).

References

- Abbott, P. H., Wilcox, M. and Muir, W. A. (2005) 'Corporate social responsibility in international cocoa trade', Purdue University, West Lafayette. http://www.ifama.org/conferences/2005Conference/Papers&Discussions/1035_Paper_Final.pdf
- Coulombe, H. and Wodon, Q. (2007) 'Poverty, livelihoods, and access to basic services in Ghana', Ghana CEM: Meeting the challenge of accelerated and shared growth. World Bank. http://siteresources.worldbank.org/INTGHANA/Resources/CEM_poverty.pdf
- Ruf, F. (2007) 'Current cocoa production and opportunities for re-investment in the rural sector Côte d'Ivoire, Ghana and Indonesia'. WCF meetings: http://www.worldcocoafoundation.org/about/documents/FRuf_paper.pdf
- Teal, F., Zeitlin, A., and Maamah, H. (2006) 'Ghana Cocoa Farmers Survey 2004: Report to Ghana Cocoa Board' Centre for the Study of African Economies, Oxford University. <http://www.gprg.org/pubs/reports/pdfs/2006-04-teal-zeitlin-maamah.pdf>
- Vigneri, M. (2005) 'Trade liberalisation and agricultural performance: Micro and macro evidence on cash crop production in sub-Saharan Africa'. DPhil thesis. Oxford University.
- Vigneri, M. and Santos, P. (2007) 'Who gains from Ghana's partial liberalisation in the cocoa sector? Lessons from local marketing practices'. Mimeo, ODI and University of Sydney.

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Project information

This project aims to assess whether the marketing system currently prevailing Ghana's cocoa sector has been beneficial to cocoa farmers. This is done by means of i) analysing primary data collected on a panel of farmers in 2002 and 2004; ii) discussing the policy implications of the research findings for the sector as a whole: how effective is the marketing system in providing the right incentives for farmers to sustain total production and yields?

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