

The role of trade policies, multinationals, shipping modes and product differentiation in global value chains for bananas: the case of Cameroon

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Editor's note

Last year I was able to attend the Conference of the European Association of Agricultural Economists in Ljubljana, Slovenia. While there, I asked Giovanni Anania, President of the Association, if he would consider sending an article to our Journal. I knew that Giovanni had worked on the trade issues of Africa for many years, and I knew that he would go out of his way to help, because he was that kind of guy. Giovanni agreed, and sent me this article earlier this year. As fate would have it, the reviewers' reports were returned just when we received the sad news of his untimely death. Because there were few comments on the article (and those mostly positive), I sought the permission of his family to publish. This request was readily granted, for which we are most grateful. As a result, the Journal and our Association are able to celebrate the life, and mourn the passing, of a good friend of African agricultural economists.

Note that the original article constructed a model of the supply chain for a country such as Cameroon. However, I felt that the qualitative argument was sufficient to make the case. Nevertheless, the model is freely available upon request.

Abstract

The first part of the paper discusses changes that occurred in the world market for bananas in recent years. These changes include successive modifications of the EU import regime for bananas (the EU is the single largest importer of bananas, with a quarter of the world market), innovations in sea shipment modes, increased concentration of the retail sector, and the expansion of the demand in developed countries for environmentally friendly and Fair Trade bananas. The implications of these changes for the distribution of the value among the actors at the different links of the global chain for bananas are discussed in detail. The second part of the paper focuses on banana exports from Cameroon, a value chain representative of 'traditional' chains in which large multinationals maintain a central role.

Key words: bananas; Cameroon; multinationals; trade policies; value chains

1. Introduction

Global value chains for bananas have changed significantly over recent years. Several factors are responsible for these changes. First, several changes in the EU import regime for bananas (the EU is the single largest importer of bananas, with one quarter of the world market) have had significant trade creation and trade diversion effects, as well as implications for the distribution of market power along these chains. Second, innovation in sea shipment technologies have induced a rapid growth in the use of refrigerated containers and, conversely, a decline in the share of bananas being transported

using traditional reefers. Third, the continuous rapid concentration of the retail sector has resulted in a parallel increase in its capacity to impose quality standards and acquisition prices upon its suppliers. Fourth, the increased demand for environmentally friendly grown and Fair Trade bananas by more educated and higher income consumers in developed countries has created opportunities for product differentiation. One of the consequences of these changes, possibly the most evident, has been the decline of the share of the international market held by the largest multinationals, with new trade operators appearing on the scene and a number of transactions occurring directly between retailers and small exporters and producer cooperatives.

The aim of the paper is twofold: first, to discuss these changes and their implications from a general point of view, and then to analyse them with reference to a specific case study, namely the value chain of banana exports from Cameroon. The first part of the paper focuses on the main changes that have occurred in the banana market in the past 10 to 15 years, and on how these changes have brought about increased diversification of the value chains that characterise this important market. The second part focuses on the Cameroon banana industry, a value chain representative of 'traditional' chains in which large multinationals maintain a central role and are characterised, as a result, by strong horizontal and vertical integration. Section three discusses in detail the structure of this specific value chain.

2. Recent changes in global value chains for bananas

There are two main families of bananas: the fruit banana, or 'dessert' banana, essentially the Cavendish variety, which represents 70 to 75% of total banana production, and the 'plantain' banana, or 'cooking' banana, which is consumed cooked as a vegetable. Dessert bananas – or simply, bananas – are the most commonly eaten fruit in the world and more than 100 million tons (t) a year are produced in around 130 mostly developing countries. Most bananas are consumed domestically. However, while international trade in plantain bananas is minimal, around 20% of the world production of dessert bananas is traded internationally.

The banana sector is a very dynamic industry. World production has more than doubled since 1990, from around 47 million tons to 107 million tons in 2013; bananas traded internationally show a similar growth, increasing from 9 million tons in 1990 to 20 million tons in 2013.

In 2013 the six main producers of bananas accounted for almost two thirds (62.4%) of global production; they were, in order of importance: India (27.6 million tons), China (12.1), the Philippines (8.6), Brazil (6.9), Ecuador (6), and Indonesia (5.4). The largest net exporters of bananas and their ranking do not coincide with those based on production, as India and China, the two largest producers, are a marginal international trader and a net importer (504 000 tons in 2013) respectively. The largest net exporter in 2013 was Ecuador (5.5 million tons, 27.7% of total world exports), followed by the Philippines (3.2, 17.2%), Guatemala (2.0, 16.3%), Costa Rica (1.9, 9.8%) and Colombia (1.6, 8.2%). In 2013, the top five exporting countries alone accounted for 79% of the world market.

Market concentration for imports is even higher than for exports. The EU, with 4.9 million tons of bananas imported in 2013 (25% of the world market), is the largest importer, followed by the US with 4.3 million tons (22% of the market). Other important net importers were the Russian Federation (1.3 million tons), Japan (1 million tons), Canada (557 000 tons) and China.

Banana trade flows show a clear pattern of regionalisation. At least in part, this is the result of past and current EU import regimes for bananas. Virtually all exports from the group of African,

Caribbean and Pacific¹ (ACP) countries are directed towards the EU, while Latin American countries export bananas to Europe, Russia, and North and South America. Virtually all US and Canada imports of bananas come from Central and South America, and over 95% of the bananas imported by the Russian Federation in 2013 come from Ecuador alone. The Asian market is largely characterised as a regional market separated from the rest of the world, with a very large share of imports satisfied by exporters from within the region itself. For example, in 2013, Japan, the largest importer in the region, imported 93% of its bananas from the Philippines.

2.1 Policies do matter: the implications of EU import regimes for bananas

Banana supply in the EU comes from three sources: domestic production (614 000 tons in 2013, or 11.3% of domestic consumption), imports from ACP countries (1.059 million tons, and 19.5%) and imports from third countries (3.767 million tons, or 69.2%). While the other main importing countries have few trade barriers, the EU import regime has been always protected domestic and ACP producers from competition from Latin American imports, which used to occur under most favoured nation (MFN) conditions, with significant effects on volumes traded and trade flows.

The Common Market Organisation (CMO) for bananas was introduced in 1993 as part of the creation of the single market. The import regime for bananas was based on a system of tariff rate quotas (TRQ) and prohibitive tariffs charged on out-of-quota imports. The regime provided preferential treatment for imports from ACP countries, and quotas were implemented using a system of import licences distributed to importers based on historically traded volumes (COGEA 2005; Goodison 2007; Tangermann 2003).

In December 2006, the EU approved a reform of its domestic policies for bananas. The reform cancelled the CMO, which provided generous support to domestic producers through a 'deficiency payment' scheme, and 'decoupled' support, making banana production in the Canary Islands (Spain), Guadeloupe and Martinique (France's 'overseas territories') – which, together, account for over 90% of EU domestic banana production – respond to market conditions. Everything else held constant, the expected impact of the reform of the EU domestic policy regime for bananas was a reduction in EU domestic banana production and, because the latter was only 11% of banana supply in the EU market, a small increase in EU domestic prices and imports (Anania 2008). In fact, banana production in the EU declined by 17.7% after the reform of the CMO, from an annual average of 740 400 tons in 2000 to 2006 to 609 200 tons in 2007 to 2013.

The EU import quota regime for bananas was also modified several times over the years, including in 1994, 1998 (when country allocations within the import quota for ACP exports were eliminated) and 2001 (when the allocation of import licences based on historical volumes imported were replaced by a quota administration based on a 'first-come, first-served' system). The quotas were completely eliminated in 2006 for MFN imports, and in 2008 for imports from ACP countries. These changes significantly affected the structure of the banana market and the distribution of the value among the actors involved. The elimination of country allocations within the quota for ACP countries increased the power of traders holding the licences and reduced the power of producers and exporters (licence holders became free to shift from one ACP country to another as a source of the bananas they traded, and saw their quota rents increase). The elimination of quota licences and the introduction of the 'first-come, first-served' system radically changed the distribution of quota rents and cancelled the strong market power of (former) licence holders, creating new opportunities for non-traditional

¹ This is a group of 79 African, Caribbean and Pacific countries, all former colonies of an EU member state, which have been granted preferential access to its market at various times. The group includes all banana-exporting African countries.

traders. Finally, the elimination of the quotas cancelled quota rents altogether,² as well as residual rigidities of the EU import regime for bananas, allowing for even more opportunities for non-traditional trade links to develop. Changes in the administration system of the quota for ACP countries and, eventually, its elimination favoured relatively new, more competitive banana exporters among the countries in this group. It also changed the competitive environment within each country, making it possible for firms that were not integrated with multinationals and did not own quota licences to export bananas to the EU without having to buy them, or, later, to compete with multinationals for in-quota exports. For example, in Cameroon this was the case of SPM, which significantly expanded its share of the country's total exports after the reform of the quota system in 2001 (see Table 1).

Table 1: Cameroon – banana exports by firm, absolute values (t) and composition (%) (1993–2014)

	PHP ¹	CDC ²	BLP	SMP ³	Total	PHP ₁	CDC ₂	BLP	SMP ₃	Total ₁
	(t)					(%)				
1993	121 322	56 278		4 195	181 795	66.7	31.0		2.3	100.0
1994	114 733	68 390		4 243	187 366	61.2	36.5		2.3	100.0
1995	113 345	64 595		3 935	181 875	62.3	35.5		2.2	100.0
1996	99 619	86 555		2 676	188 850	52.8	45.8		1.4	100.0
1997	92 340	84 212		178	176 730	52.2	47.7		0.1	100.0
1998	104 691	105 313		4 252	214 256	48.9	49.2		2.0	100.0
1999	123 542	102 079		9 521	235 142	52.5	43.4		4.0	100.0
2000	114 796	113 057		10 450	238 303	48.2	47.4		4.4	100.0
2001	129 949	111 172		13 285	254 406	51.1	43.7		5.2	100.0
2002	119 651	114 417		24 777	258 845	46.2	44.2		9.6	100.0
2003	146 048	121 877		33 751	301 676	48.4	40.4		11.2	100.0
2004	115 866	130 385		31 032	277 283	41.8	47.0		11.2	100.0
2005	117 290	111 250		28 974	257 514	45.5	43.2		11.3	100.0
2006	118 425	106 939		31 012	256 376	46.2	41.7		12.1	100.0
2007	111 481	84 249		36 597	232 327	48.0	36.3		15.8	100.0
2008	129 558	99 444		39 707	268 709	48.2	37.0		14.8	100.0
2009	118 802	99 690		37 017	255 509	46.5	39.0		14.5	100.0
2010	111 173	92 842		28 796	232 811	47.8	39.9		12.4	100.0
2011	125 386	98 734		24 903	249 023	50.4	39.6		10.0	100.0

² Estimates of quota rents vary widely (Anania 2006; COGEA 2005; FAO 2005). Anania (2006) estimated them to equal US\$94/t in 2002 for the MFN quota and US\$56/t for the ACP quota.

2012	121 731	81 311	4 927	18 192	226 161	53.8	36.0	2.2	8.0	100.0
2013	129 188	107 416	6 720	11 755	255 079	50.6	42.1	2.6	4.6	100.0
2014	152 067	103 459	11 976	0		56.8	38.7	4.5	0.0	100.0

Source: Assobacam (2015)

(1): PHP + SBM + SPMP

(2): CDC - Tiko + CDC - BEP + CDC - EPB + CDC -

Ekona

(3) SCBP before 1998

With the Everything But Arms (EBA) initiative, the EU granted duty-free and unlimited market access to all imports, except arms and ammunitions, originating in least developed countries (LDC). Since 1 January 2006, EU banana imports from these LDCs have entered the EU tariff free and without any quantitative limitation. So far the EBA initiative has not generated significant results in terms of increased LDC banana exports to the EU. Analyses converge on judging the trade preference granted, albeit considerable, as insufficient to enable LDC countries to overcome other factors, linked to both costs of production and product quality, which make their banana exports to the EU uncompetitive.

On 1 January 2006, the EU introduced a ‘tariff only’ import regime for bananas, removing the TRQ for imports under MFN conditions (the TRQ was equal to 3 113 000 tons, with imports within the quota subject to a 75€/t import tariff and out-of-quota imports subject to a prohibitive 680€/t tariff), setting the MFN tariff at 176€/t and expanding the duty-free quota reserved for imports from ACP countries from 750 000 to 775 000 tons. The ‘tariff only’ import regime increased access to the EU market for MFN bananas significantly by introducing a tariff that implied a lower degree of market protection and by removing rigidities associated with quota licences and eliminating quota rents. The introduction of the ‘tariff only’ import regime changed the competitiveness of ACP bananas on the EU market vis-à-vis MFN exporters. It had a large ‘trade creation’ effect. EU-27 imports from MFN countries expanded from a level close to the 3 113 000 ton MFN quota in 2000 to 2005 to over 4 million tons in 2008; imports declined in 2009, 2010 and 2011, also as a result of the changes that occurred in the import regime for ACP countries (see below), but nevertheless remained well above their levels before 2006 (Table 2). These figures seem to confirm the results of *ex ante* analyses, which found that, contrary to the ruling of the World Trade Organization (WTO) in the 2005 arbitration, the new import regime for bananas unilaterally introduced by the EU in 2006 was to expand market access for MFN banana exports (Anania 2006). Until 1 January 2006, ACP country exports outside the duty-free quota were subject to a preferential tariff of 360€/t, while, with the introduction of the ‘tariff only’ regime, the tariff imposed on out-of-quota ACP exports became the now much lower MFN tariff, viz. 176€/t. As a result, under the new regime, ACP country exports also expanded, from 765 000 tons in 2005 to 845 000 in 2007. The fact that around 15% of ACP banana exports to the EU in 2006 and 2007 occurred subject to the MFN tariff implies that some of the ACP countries had developed a capacity to produce and market bananas competitively with MFN countries. ACP countries that experienced a rapid expansion of their banana exports to the EU following the changes in its import regime are the Dominican Republic, with a 30.5% share in 2013, and Ghana, which emerged from being a marginal player until 2005 (0.6% of ACP exports to the EU) to exporting close to 50 000 tons (4 to 5% of ACP exports) since 2010. At the other end of the spectrum, there are traditionally important ACP exporters that saw their capacity to compete on the EU market rapidly erode over the years, including Dominica (from 28 000 tons exported in 1999 to 1 000 in 2013), Jamaica (exported 52 000 tons in 1999, but is not exporting bananas any more) and St Lucia (from 66 000 tons in 1999 to 12 000 tons in 2013).

While the effects of the introduction of the ‘tariff only’ regime by the EU on volumes traded are as expected, it is less so when the impact on prices is considered. Consider the evolution of the price paid for the bananas exported to the EU between 2000 and 2011 in three countries: Ecuador, the largest exporter; Cameroon, a much smaller exporter, but still among the top 10 globally; and the Dominican Republic, whose banana exports have always involved non-traditional trade chains. Prices paid for banana exports to the EU are represented by average unit values (AUVs), both at the EU border and at the country’s own border; AUVs in US\$ are considered for Ecuador and the Dominican Republic, while values in Euro are used for Cameroon.

In the case of Ecuador, changes in the price at the EU border do not seem to transmit to the price received at its border, both before and after the policy change (Figure 1). The large increases in the price recorded at the EU border between 2000 and 2005 (+68.3% in five years) do not translate into increases in the AUV at the border of Ecuador, which remains almost constant (+10.5%). The decline in the AUV at the EU border in 2006 (-6.3%) is of an order of magnitude one would have expected because of the reduction in EU market protection, while the corresponding increase in the AUV at the border of Ecuador (+7.6%) is smaller than expected.³ International price transmission in this case appears to be low.

³ Very similar patterns emerge if prices in Euro, instead of US\$, are considered.

Table 2: EU-27 banana imports in volume by source, absolute values (t) and percentage composition (1999–2013)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	<i>Imports (t)</i>														
Cameroon	162677	211970	225441	236502	298507	261244	252926	250859	221846	279564	249659	243021	237413	213868	249239
Belize	55650	68558	51609	38709	73806	80292	74189	73207	62357	82149	79799	78817	72447	99288	96763
Cote d'Ivoire	202607	208251	226583	216742	210952	210776	183850	221668	189366	216953	229215	244323	224146	224944	252175
Dominica	28140	28373	18082	17802	10846	12401	13182	13591	7458	10489	36946	4218	4362	2268	1443
Dominican Republic	42334	59928	85930	97348	111954	101355	144743	176778	206389	170623	228179	303728	326902	294589	322658
Ghana	2909	3881	3656	3536	1238	2003	4331	22531	34278	46233	36763	52632	47418	50691	42612
Jamaica	51635	40963	42985	40600	41784	28660	11654	31866	18372	42	3	8			
St Lucia	65587	72566	34727	49313	32520	42874	28243	36733	30497	38579	33292	23173	6206	12145	12367
Suriname	39066	34282	28732	6557	12	19464	35271	45373	58799	65815	57617	70440	62914	83126	80956
Other ACP countries	39449	44370	32343	33809	23026	26276	16699	18548	15543	10709	9235	5626	6448	1416	872
Total ACP	690054	773143	750087	740919	804645	785345	765088	891155	844904	921156	960708	1025984	984256	982335	1059085
Total non-ACP	3320035	3224698	3129459	3205629	3323030	3284939	3219972	3559303	3921062	4041201	3663915	3567174	3729832	3558221	3767328
Total EU-27	4010088	3997841	3879547	3946548	4127675	4070285	3985061	4450458	4765965	4962357	4624623	4593159	4714088	4540556	4826413
	<i>Composition of EU imports from ACP countries (%)</i>														
Cameroon	23.6	27.4	30.1	31.9	37.1	33.3	33.1	28.1	26.3	30.3	26.0	23.7	24.1	21.8	23.5
Belize	8.1	8.9	6.9	5.2	9.2	10.2	9.7	8.2	7.4	8.9	8.3	7.7	7.4	10.1	9.1
Cote d'Ivoire	29.4	26.9	30.2	29.3	26.2	26.8	24.0	24.9	22.4	23.6	23.9	23.8	22.8	22.9	23.8
Dominica	4.1	3.7	2.4	2.4	1.3	1.6	1.7	1.5	0.9	1.1	3.8	0.4	0.4	0.2	0.1
Dominican Republic	6.1	7.8	11.5	13.1	13.9	12.9	18.9	19.8	24.4	18.5	23.8	29.6	33.2	30.0	30.5
Ghana	0.4	0.5	0.5	0.5	0.2	0.3	0.6	2.5	4.1	5.0	3.8	5.1	4.8	5.2	4.0
Jamaica	7.5	5.3	5.7	5.7	5.2	3.6	1.5	3.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
St Lucia	9.5	9.4	4.6	6.7	4.0	5.5	3.7	4.1	3.6	4.2	3.5	2.3	0.6	1.2	1.2
Suriname	5.7	4.4	3.8	0.9	0.0	2.5	4.6	5.1	7.0	7.1	6.0	6.9	6.4	8.5	7.6
Other ACP	5.7	5.7	4.3	4.6	2.9	3.3	2.2	2.1	1.8	1.2	1.0	0.5	0.2	0.1	0.1
Total ACP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Composition EU imports (%)</i>														
Cameroon	4.1	5.3	5.8	6.0	7.2	6.4	6.3	5.6	4.7	5.6	5.4	5.3	5.0	4.7	5.2
Total ACP	17.2	19.3	19.3	18.8	19.5	19.3	19.2	20.0	17.7	18.6	20.8	22.3	20.9	21.6	21.9
Total non-ACP	82.8	80.7	80.7	81.2	80.5	80.7	80.8	80.0	82.3	81.4	79.2	77.7	79.1	78.4	78.1
Total EU-27	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Comext (2015); EU Commission, DG-Agri (2015)

The increased difference between the two AUVs between 2000 and 2007 can have two very different explanations: an increase by the same order of magnitude of international transportation and transaction costs, or international traders capturing the benefits from the increased price paid at the EU border. However, there is no evidence of increased international transportation and transaction costs in the years considered.

A similar pattern emerges when the prices of banana exports from Cameroon are considered. The AUV of bananas at the border of Cameroon remained constant through the implementation of the ‘tariff only’ regime and the first two years of the unrestricted duty-free export regime it was granted with the EPA. The reduction of the price at the EU border in 2006 and 2007, as a result of the increased market access given to MFN importers, and the expansion of exports from ACP countries as a whole, did not translate into a decline in the price received for Cameroonian bananas at the country’s border (Figure 2). While the price in Euro paid for Cameroon bananas at the country’s border shows limited variability between 1999 and 2009, the price recorded at the EU border shows a significantly higher variability, the difference between the two prices being highly correlated with the price at the EU border. Again, this pattern can have two explanations: it can either reflect fluctuations in international transportation and transaction costs, or it can reflect the fact that the multinational firm handling Cameroon’s exports was keeping the price paid to its suppliers relatively stable while ‘absorbing’ positive and negative fluctuations of the price at the EU border in its margins. Finally, a quite different pattern emerges when the analogous prices for bananas exported to the EU by the Dominican Republic are considered (Figure 3). In this case, contrary to what has been observed for Ecuador and Cameroon, the AUVs at the country’s border and at the EU border appear to move together.

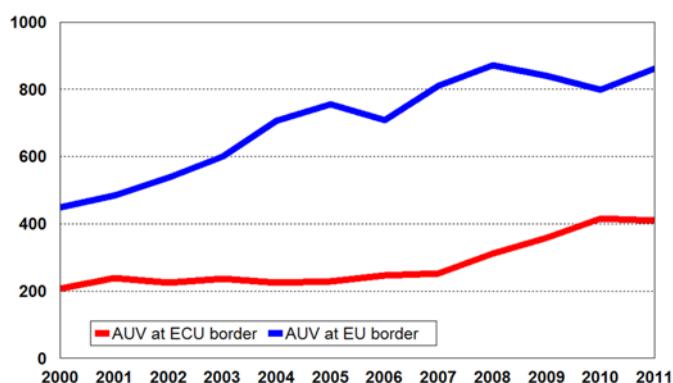


Figure 1: Ecuador. Bananas: average unit value (AUV) for exports at the Ecuador and EU borders (US\$/t; 2000 to 2011)

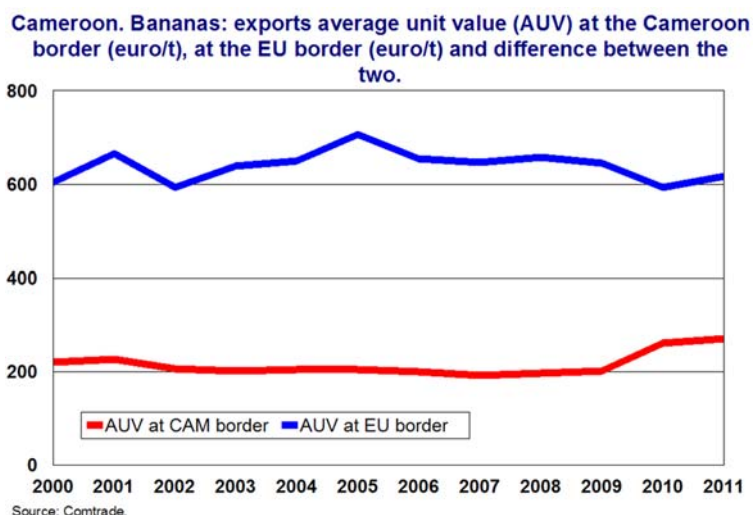


Figure 2: Cameroon. Bananas: average unit value (AUV) of exports at the Cameroon and EU borders (€/t; 2000 to 2011)

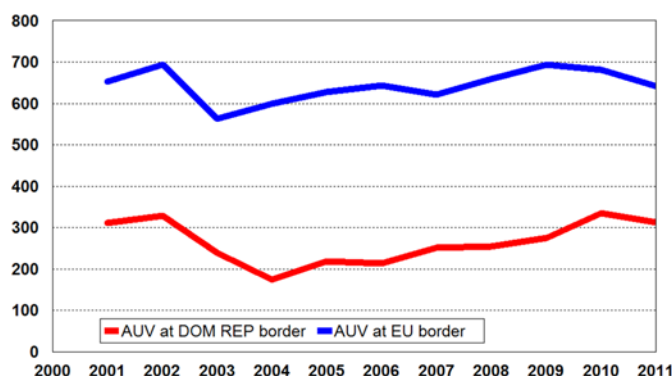


Figure 3: Dominican Republic. Bananas: average unit value (AUV) of exports at the Dominican Republic and EU borders (€/t; 2000 to 2011)

On 1 January 2008, the EU implemented the interim EPA it negotiated with the ACP countries. The EPAs will progressively remove barriers to trade between the EU and several groupings of ACP countries in a bid to create free trade areas compliant with WTO rules. All agricultural exports from those ACP countries that have successfully concluded the negotiations are allowed duty-free and quota-free access to the EU. Bananas, along with sugar and rice, have been indicated as the commodities for which most of the export benefits are to be gained. The EPA greatly increased the trade preference margin enjoyed by ACP bananas on the EU market. As a result, ACP banana exports to the EU increased from 845 000 tons in 2007 to 1 059 000 tons in 2013 (Table 2). The ACP share of the EU market increased at the expense of MFN countries, from 17.7% in 2007 (the lowest value since 1999, as a result of the introduction of the ‘tariff only’ import regime for MFN exporters) to 21.9% in 2013 (Table 2). MFN exports to the EU from 2008 to 2013, i.e. after the implementation of the EPA (on average 3.721 million tons) remained slightly below the levels reached in 2006 and 2007 (on average 3.740 million tons). The net effect for ACP countries as a whole of the two subsequent changes in the EU import regime – the introduction of the ‘tariff only’ import regime for MFN countries and the ‘interim’ EPA – appears to have been positive, i.e. the increased preference granted to ACP countries through the elimination of the quota seems to have been able to more than compensate the preference erosion that occurred with the implementation of the ‘tariff only’ regime for MFN banana exports. In fact, ACP banana exports to the EU in 2012 and 2013 (with both changes in the EU import regime for bananas in place) were 32% higher than those in 2004 and 2005 (before the changes). Analogously, considering longer periods to make the comparison, ACP average yearly exports increased from 765 000 tons in the period from 2000 to 2005, to 868 000 tons in 2006/2007, and to 989 000 tons from 2008 to 2013. Thanks to the ‘trade creation’ effect of both policy changes, MFN exports also increased between 2004/2005 and 2012/2013, although by a smaller percentage (+13%) with respect to ACP exports. MFN share of EU imports, which remained always above 80% between 1999 and 2008, was below this threshold thereafter.

Again, while the observed impact of the EPA on volumes traded is what could have been expected, this is not the case for prices. If we consider the AUV of bananas exported from Ecuador to the EU at the two borders (Figure 1), we see that, in 2008, the AUV at the EU border did not decline, but rather increased and remained relatively stable thereafter. In contrast, the AUV at the border of Ecuador, which only slightly increased between 2000 and 2007, increased significantly for three years in a row. These increases, which cannot be explained by a stiff reduction in international

transportation and transaction costs, means they can be due to actors in the exporting country having been able to seize part of the margins previously held by actors in the international links of the chain. Also, in the case of Cameroon, the linkage between the prices at the two borders appears to change in more recent years, while, in contrast, the AUVs at the country border and at the EU border for Dominican Republic exports appear to move together along the entire period from 2000 to 2011. What the different patterns observed for Ecuador, Cameroon and the Dominican Republic and the structural change observed for Ecuador in more recent years seem to suggest is that the transmission of variations in the price paid at the EU border to the price at the exporter's border is higher the more limited the role of large multinationals in handling the country's exports.

In December 2009, Latin American exporters, the US and the EU reached an agreement to bring to an end the long-standing 'banana war' at the WTO, dating back to 1996. The agreement called for a progressive reduction of the EU MFN tariff on bananas, from 176€t, between the signing of the agreement and 2019, with an immediate tariff cut of 28€t and subsequent cuts thereafter (Table 3). This agreement implies a significant, progressive erosion of the tariff preference granted by the EU to bananas from ACP countries, from 176€t in 2009 to 114€t in 2019, a reduction in 2019 by 62€t. The expected effects of the progressive reduction of the MFN tariff are twofold: a trade-creation effect, i.e. an increase in EU banana imports, and a trade diversion effect, i.e. a decline in ACP banana exports to the EU and an increase in MFN exports (with the increase in MFN exports being larger than the decline in ACP exports). Simulations of the expected effects of the implementation of this agreement suggest that the erosion of ACP preferences will be significant, but will not be such that all benefits deriving from the EPA are wiped out, i.e. ACP banana exports to the EU in 2019 are expected to remain above those that would have occurred if neither the EPA or the WTO 2009 agreement were in place (Anania 2010a).

Finally, in 2010, the EU concluded trade agreements with Colombia and Peru and an association agreement with six Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama). A similar agreement was reached with Ecuador in July 2014. From the perspective of the American countries, the provisions on bananas are considered among the key elements in these agreements. In the agreements reached in 2010, EU concessions on bananas were the same for all eight countries:⁴ the EU agreed to progressively reduce its import tariff on bananas originating in these countries to 75€t by 1 January 2020.

Table 3: EU import tariffs for bananas under different regimes (€t)

	Import tariff (€t)			Preferential margin of ACP countries that concluded negotiations for an EPA vis-à-vis MFN countries	Preferential margin of ACP countries that concluded negotiations for an EPA vis-à-vis Central American and Andean countries*
	MFN (no DDA agricultural modalities by 31/12/ 2013)	ACP non-LDC (from 2008 ACP non-LDC that concluded negotiations for an EPA)	Trade agreements between the EU and Central American and Andean countries*		
EU import regime in place in 2005	Quota of 3 313 000 tons in quota exports subject to a tariff equal to 75€t; out-of-quota exports	Quota of 750 000 tons duty free in-quota exports; out-of-quota exports subject to a tariff equal to 380€t			

⁴ The details of the agreement with Ecuador had not yet been made available to the public at the time this paper was written.

	subject to a tariff equal to 680€t				
2006	176	Quota of 775 000 tons duty-free in-quota exports; out-of-quota exports subject to a tariff equal to 176€t			
2007**	176				
2008	176	0		176	176
2009	176	0		176	176
2010	148	0	145	148	145
2011	143	0	138	143	138
2012	136	0	131	136	131
2013	132	0	124	132	124
2014	132	0	117	132	117
2015	132	0	110	132	110
2016	127	0	103	127	103
2017	122	0	96	122	96
2018	117	0	89	117	89
2019	114	0	82	114	82
from 1/1/2020	114	0	75	114	75

Notes: *Columbia and Peru; Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. Until 31 December 2019 the preferential tariff is subject to a ‘stabilisation clause’ based on country-specific trigger import volumes

** The provisions for bananas of the EBA initiative were fully implemented in 2007, providing ACP least developed countries duty-free and quota-free access to the EU market

In the absence of any agreement, the import tariff to be applied to their exports in 2020 would have been 114€t (the MFN tariff). This means a preferential margin with respect to MFN banana exports that will increase progressively from 3€t in 2010⁵ to 39€t from 2020 on (Anania 2010b) (Table 3). This means an even larger preference erosion for ACP banana exports vis-à-vis those from these countries than vis-à-vis banana exports subject to MFN conditions. However, with the implementation of the agreement with Ecuador, only a very small portion of EU banana imports will occur under MFN conditions. The additional erosion of the preference for ACP banana exports will increase progressively from 8€t in 2013 to 39€t in 2020. A ‘safeguard’ clause (‘stabilisation clause’ in the agreements) will apply until 2020 to prevent larger than anticipated increases in EU banana imports (Anania 2010b). Due to this clause, most of the effects on banana trade are likely to unfold only after 2020, when it is due to expire.

Developments in the EU import regime for bananas had a significant impact not only on trade volumes and trade flows, but also on the distribution of power in the banana market. Trade volumes expanded as a result of the progressive lowering of the protection of the EU market; trade flows have been affected in opposite directions by subsequent modifications of the relative profitability of MFN bananas vs. ACP bananas resulting from changes in the EU import regimes relevant for the two groups of countries; the market power of large multinationals and the large rents extracted by traders have been reduced significantly and eliminated respectively by the progressive relaxation and, eventually, the elimination of EU import quotas.

2.2 The revolution in banana shipping: from dedicated reefers to refrigerated containers

⁵ The tariff reductions were actually implemented in 2013, after the ratification of the agreements by the parties involved. However, the tariffs applied were those originally foreseen in the agreements for the specific year.

Traditionally, bananas were shipped in dedicated reefer vessels, with the international transportation link of the chain being controlled by the large multinational bananas traders, which either directly owned or chartered the reefers. Relatively recently, some of the largest operators in the shipment industry, e.g. Maersk and MSC, introduced refrigerated containers. These can be loaded on the ship along with containers filled with other goods, while reefers are filled with bananas only, allowing the possibility to export small quantities of bananas using commercial lines. Refrigerated containers can hold bananas in good conditions for more than 30 days and significantly reduce post-harvest handling costs⁶ and damage to the fruit. In fact, bananas can be stored in the refrigerated containers directly at the packing facility in the field, with no additional handling of the individual pallets until they arrive at the ripening facility in the importing country. In 2009, about one third of the bananas traded internationally were shipped in refrigerated containers, a share that has been increasing consistently over the years (Arduino *et al.* 2013; Bright 2012; FAO 2014). Despite a growing banana world market, the number of reefers declined by 8% between 2000 and 2008, and by an additional 19% between 2008 and 2013 only (Agritrade 2012; Arduino *et al.* 2013).

The introduction of refrigerated containers significantly affected the structure of the value chains for bananas by reducing barriers to entry in the trading link, making it possible for small and medium operators in producing and importing countries to export and import relatively small volumes of bananas, without having to rely on space in conventional reefer vessels controlled or directly owned by large multinational firms.

2.3 The changing role of multinationals and the retail industry

A large share of banana trade is concentrated in a very small number of multinational companies. Just four companies handled 40% of world banana trade in 2013: Chiquita (13%), Del Monte (12%), Dole (11%) and Fyffes⁷ (6%) (FAO 2014). However, this share has been declining over time; the same four companies controlled 65% and 60% of world banana trade in 1980 and 2002 respectively: Chiquita 29% and 22%, Del Monte 15% and 20%, Dole 21% and 16%, and Fyffes a marginal share in 1980 and 4% in 2002 (FAO 2003). In recent years, around 10% of world trade has been in the hands of a small number of newcomer “Russian companies” controlling the rapidly growing Russian market (Bananalink 2011).

Chiquita, Del Monte and Dole are highly vertically integrated, as they also produce bananas in their own plantations, have their own fleets of vessels to transport bananas around the globe, and are active in the banana-ripening sector in importing countries. However, over the years they have gradually shifted from directly producing a significant share of the bananas they traded to purchasing bananas from large producers under multi-annual contracts, concentrating their attention on the shipping, ripening, international trading and marketing links of the chain.

The elimination of the EU import regime based on import quotas, administered on the basis of import licences allocated to traders on a historical basis, significantly reduced the capacity of multinational companies to prevent new actors from entering the market and to capture a large portion of their margins by imposing high prices for the quota licences. Large retailer chains are often indicated as able to dictate quality standards and to determine, to a large extent, their acquisition prices for bananas. Some of them have also started buying bananas directly from independent exporters and producer cooperatives, bypassing multinational firms altogether. This is the case, for example, for a significant share of organic and Fair Trade banana exports from the Dominican Republic.

⁶ According to Arduino *et al.* (2013), transport costs for bananas shipped by refrigerated containers are slightly higher than for those transported in traditional reefer vessels.

⁷ In March 2014, Chiquita and Fyffes announced their intention to merge.

Developments in the retail sector in importing countries, with the rapidly increasing concentration of the industry, an increasing volume of bananas being shipped in refrigerated containers, and the end of the EU import regime based on quota licences, have all contributed to the progressive reduction in the capacity of multinational companies to exercise market power.

2.4 Undifferentiated vs. quality-differentiated bananas

For most consumers, ‘a banana is a banana’, i.e. it is perceived as a largely undifferentiated good.⁸ This reduces the negotiating power of producers and exporters vis-à-vis traders and importers and, for the same reasons, increases that of retailers vis-à-vis their suppliers. Effective product differentiation makes sales expand, increases the value of the product at the end of the chain (the price paid by the final consumer), and creates necessary conditions to increase the share of the value captured by actors at the opposite end of the chain (producers and other actors in the country where the bananas are produced). Producing organic and Fair Trade bananas and bananas grown in another environmentally friendly manner has been a major way to try to differentiate bananas in the eyes of more educated, higher income consumers in developed country markets. Sales of organic, Fair Trade and dual certified – organic and Fair Trade – bananas (in 2013, 34% of Fair Trade bananas were also certified organic) have been increasing consistently over time. One third of the bananas sold in the UK in 2011 were Fair Trade bananas. Fair Trade bananas amounted to only 373 000 tons in 2013, i.e. around 3.5% of the bananas traded internationally; nevertheless, they are the second largest Fair Trade product in market value (the first one being cut flowers). In many developed countries bananas are the most important Fair Trade product sold on the market. This has occurred because some large retailers decided to promote Fair Trade bananas to respond to growing consumer concerns about the exploitation of plantation workers and smallholder producers by large multinationals. In this respect, an important step was the decision in 2007 by Sainsbury’s to convert to selling Fair Trade bananas only. While the fact that the often relatively small price premium paid for organic and environmentally friendly bananas does actually translate into higher profits for producers is sometimes questioned, there is little doubt about the benefits accrued by producers in terms of increased exports. In the case of Fair Trade bananas, in addition to the price premium received by smallholders, there also are benefits in terms of higher wages and improved working conditions for plantation workers, and social services for both smallholder producers and plantation workers.

Fair Trade and organic banana production constitutes the most important single factor explaining the rapid increase in recent years of volumes exported by and market shares of some of the relatively smaller banana exporters, such as the Dominican Republic (a marginal exporter in 1990, it exported 355 000 tons in 2013 and is now the largest supplier of Fair Trade bananas) and Peru (124 200 tons exported in 2013). Other large exporters of Fair Trade bananas are Colombia and Ecuador.

2.5 Safety and quality standards

Private standards set by retailers are significantly more stringent than the formal standards of the importing countries. For large producers, satisfying these standards is a problem in terms of the costs involved, not in terms of their ability to abide by the constraints on production practices and to meet the required quality standards. In contrast, the standards to be satisfied constitute a barrier to entry for smallholder producers that they may, or may not, be able to comply with, depending on a series of factors, some related to the characteristics of the specific farm, others to the socio-economic and

⁸ In certain markets, bananas from Chiquita are identified by consumers as having relatively higher quality characteristics, which translate into a small price premium.

institutional environment (for example, effective technical assistance and access to inputs being provided by the domestic buyer or by the farmers' cooperative).

2.6 The increasing diversification of banana value chains

Value chains in the banana market can be differentiated along two partially interrelated dimensions: who manages the international trade link and the degree of product differentiation. As a result of the developments in the global banana market in recent years, three broad 'archetypes' of value chains can be identified:

- *Traditional* value chains, characterised by the central role played in international trading, ripening and marketing by a large multinational. Production occurs in large plantations, either directly owned by the multinational or under a multi-year contract with an independent firm, often with the direct involvement of the multinational in the management of production activities. The multinational also provides shipping and ripening services. In many markets the price paid by the retail sector is the result of bargaining between multinationals and retail chains, in a complex oligopoly/oligopsony setting. This value chain is characterised by a very high level of vertical integration/coordination. Once the price paid by the retail sector is set, the distribution of the value of the bananas traded is largely determined by the multinational. When production takes place in independent firms, the multinational uses its market power to set the price paid to its suppliers as low as possible under the constraint of making it profitable for them to stay in business. 'Traditional' value chains are still predominant in the global banana market.
- *Innovative* value chains, characterised by the role played in the international trading link by an actor other than a traditional multinational. This is often a relatively small operator, located in the exporting or importing country. If it is active in the exporting country, it is often a firm directly involved in large-scale production, although the share of the bananas it trades that are produced in its own plantations tends to decline over time. It deals only with bananas produced within the country, mostly by large and medium-sized plantations; when this is not the case, the supplier is a producer organisation or a cooperative. Its counterpart in the importing country is also a relatively small operator, often with its own ripening facilities. If the trader is active in the importing country, on the other hand, it often uses its own ripening facilities while it buys transportation services. It deals with bananas from different origins. In both cases, bananas are more often shipped in refrigerated containers. Vertical coordination in this chain is more complicated than in a 'traditional' one, which makes relations along this chain more volatile. The distribution of value may or may not be more equitable. While the 'traditional' chains still represent a large majority of the industry, 'innovative' value chains have been growing rapidly in importance.
- *Product-differentiated* value chains, characterised by the specific quality characteristics of the bananas – such as them being organic and/or Fair Trade – which makes them different from 'undifferentiated' bananas for a specific segment of consumers in developed countries. Production occurs in large plantations as well as in smallholdings grouped in cooperatives. The cooperative, or the producer association, provides small producers with technical assistance, inputs, and sorting and packing services, and takes care of the contractual arrangements with the buyer. Exports often occur either directly, by large cooperatives or plantations buying transportation services and selling to an importer, or also buying ripening services and trading directly with retailers. Alternatively, bananas are sold to a local exporter, who takes care of all other activities along the chain. In this case, international shipping also occurs more often using refrigerated containers. For this type of value chain, 'trust' among actors is a crucial factor, as

informal relations are important. Multinationals are marginally involved in 'product-differentiated' value chains, as they consider conventional bananas their core business. The distribution of value among the actors in these value chains appears more equitable than in the other two. 'Product-differentiated' value chains constitute a small portion of the world banana market.

Other, smaller, chains also exist that are a mixture of different characteristics of these archetypes.

3. The Cameroon banana sector

The interest in focusing on the Cameroon banana industry as a case study is based on the fact that it constitutes a showcase example of a 'traditional' value chain. In fact, the Cameroon banana export industry is characterised by the central role played by a single multinational that is able to coordinate – and, to a large extent, control – the activities of the entire industry in the country. This makes it an example that can be used as a benchmark to analyse the functioning of chains that see a less pervasive presence of multinationals.

Cameroon is among the main exporters of bananas; in 2012, the 231 800 tons gave it a mere 1.5% of the world market, but made it the seventh largest exporter.

All dessert bananas produced in Cameroon are destined for export, with the domestic market a residual market for lower quality fruit in terms of size, shape or appearance; around 10 to 15% of bananas are rejected at the packing facilities and sold on the spot to local traders to be distributed in the domestic market. Dessert bananas are also produced in small plots for home consumption.

The production of dessert bananas in Cameroon is extremely concentrated; in the recent past, four firms produced virtually all bananas exported from the country: the Société des Plantations du Haut Penja (PHP), Cameroun Développement Corporation (CDC), BOH Plantations Limited (BPL) and the Groupe Société des Plantations de Mbanga (SPM), while production by smallholder producers was insignificant.

The PHP group is the largest operator, with 57% of total Cameroon banana exports in 2014, and a share that remained above 40% between 1994 and 2003 (Table 1). The group includes two companies, PHP itself and SBM. PHP is entirely owned by the Compagnie Fruitière de Participation, a French-American company owned by the French Fabre family (60%) and by Dole (40%). PHP controls 51% the SBM company, with Cameroon investors and the Italian firm Simba owning the remaining 13% and 36% respectively.⁹ Compagnie Fruitière has been present in Cameroon since the early 1980s; it also is a major player in the banana sector in other countries in the region, mainly Ivory Coast and Ghana. PHP's main business is bananas, but it also exports flowers and pepper from Cameroon. All PHP bananas are GlobalGAP and ISO14001 certified,¹⁰ while 800 out of the 3 300 hectares it farms and four of its packing facilities are Fair Trade certified; PHP bananas also meet Tesco's 'Nature's Choice' quality standards, a private standard that is more strict than GlobalGAP in terms of the chemicals that can be used. PHP is strongly pushing for the introduction of an 'African' label for high-quality bananas from the West Africa region (Cameroon, Ivory Coast and Ghana), an umbrella quality assurance certification to be used in conjunction with private firm labels. PHP pays its employees a salary that is significantly above the minimum to which they are entitled. Compagnie Fruitière owns ripening facilities in several European countries and in African Express Line (AEL),

⁹ Henceforth the acronym PHP will be used to refer to the group as a whole.

¹⁰ ISO14001 is an international certification for firms that have an effective environmental management system in place.

a sea shipping company operating a reefer fleet. PHP is in the process of expanding banana production by increasing its farmed land by almost 25%. PHP is currently providing, on a contractual basis, CDC and BPL, the only two other firms producing bananas in the country, with technical assistance in the field. In addition, Compagnie Fruitière handles, on a commission base, all BPL exports and part of those by CDC.

Cameroun Développement Corporation (CDC) accounts for around 40% of Cameroon banana exports. In 2013 and 2014 it exported more than 100 000 tons, a volume larger than in the previous years but below that at the beginning of the past decade. CDC is a public firm owned by the Government of Cameroon. It is one of the largest firms in the country and the largest employer after the State. CDC operations are concentrated in agriculture, mostly in producing and exporting bananas, palm oil and rubber. CDC banana plantations cover close to 3 900 ha (16 000 ha are devoted to palm oil production, 24 000 to rubber). The government has been trying to privatise CDC since 1998, without success, which has left CDC management with a very uncertain medium-term scenario, with negative effects on investment decisions, including those related to banana rotation plans and drainage management and, as a result, on productivity (CDC yields are lower today than at the beginning of the past decade). A large portion of CDC plantations are characterised by relatively poor soil quality and high rainfall, which creates conditions favourable to the spread of black sigatoka.¹¹ CDC employs 6 500 people in its banana operations. Workers receive a salary that is above the minimum they are entitled to by law. From 1988 until 2011, CDC was active in close partnership with Del Monte Fresh Fruit, which provided technical assistance in the area of production and was exporting most of the CDC bananas at a fixed, pre-determined free on board (FOB) price out of the Douala port. When the agreement with Del Monte expired (because Del Monte was unwilling to renew it), CDC first bought technical assistance services from SPM; now it receives technical assistance from PHP. Bananas sold through Del Monte were labelled 'Del Monte Cameroun'. Some CDC exports were also taking place under the label 'CDC banana'. CDC launched its own brand of high-quality bananas ('Makossa') in 2010, and it currently still is marketing 3 000 000 boxes of bananas (the equivalent of 54 400 tons) per year via Del Monte (at a pre-fixed FOB price, set annually), and the rest of the production, including the Makossa-labelled high-quality bananas, through Compagnie Fruitière (on a commission basis). The Makossa bananas are sold mostly in Southern France, where consumer recognition of the label is highest. All CDC bananas are certified GlobalGAP. In the past, CDC has used refrigerated containers to ship its bananas, when it was offered a good deal by Maersk, who needed return cargo in lieu of empty containers back to Europe. While CDC did not consider obtaining the Fair Trade certification for its bananas in the past – Del Monte never saw this as a strategy worth pursuing – it is considering it now. CDC is currently expanding the land devoted to banana production.

The Société des Plantations de Mbanga (SPM) group has been an important actor in the Cameroon banana industry, with close to 16% of country exports in 2007. Since then the group has faced severe financial problems (exports dropped from almost 40 000 tons in 2008 to zero in 2014) (Table 1). SPM plantations cover around 1 100 hectares. SPM is a private-public company, with the largest shareholders being French investors (49%), and the remaining shares in the hands of the Government of Cameroon, Maersk and others. SPM used to export its bananas through Compagnie Fruitière.

BOH Plantations Limited (BPL) is a newcomer on the Cameroon banana industry scene. It started operations in 2008 and currently produces bananas on 300 ha (it has an option to expand production over 1 000 ha). It exported bananas for the first time in 2012 and reached 4.5% of total Cameroon

¹¹ Black sigatoka is a disease that is spreading globally and causes up to a 50% loss of fruit. It can be controlled only by frequent applications of fungicides, although the prompt removal of affected leaves and good drainage help significantly.

exports in 2014 (12 000 tons). The sole owner, a Cameroonian entrepreneur, was not active in agriculture before (his main interests are in construction and public works). BPL started operations receiving technical support from SPM, with very disappointing production and economic results. Since April 2013 it has been technically supported by PHP and its yields increased significantly after only a few months (from 21 t/ha to 40 t/ha). PHP also helped to improve banana quality and to reduce production costs. BPL sells its bananas through Compagnie Fruitière on a commission basis. In a few years, BPL might become a significant actor in the Cameroonian banana industry, expanding its share of exports to around 10%.

As a result of the strong preferential tariff margin, virtually all Cameroon exports are shipped to the EU. While Cameroon has benefitted from the EPA regime, it has not yet been able to take full advantage of the more favourable market access due to the increasing relative competitiveness of other ACP exporters, mainly due to (i) higher production and domestic transaction and handling costs and (ii) the limited capacity to differentiate its bananas from those of the competitors. Production of organic bananas in Cameroon is made very difficult by environmental conditions and the need to control the black sigatoka disease.

Productivity has always been considered an issue in banana production in Cameroon. Reaching yields of 50 to 60 t/ha has often been indicated as an industry goal, regardless of production costs and product quality considerations. PHP consistently showed higher yields, while CDC and SPM have been lagging behind, partially as a result of under-investment due to the uncertain medium-term scenarios for CDC and the severe financial problems faced by SPM. The technical assistance now provided by PHP to CDC is expected to generate significant efficiency gains.

Recent developments in the industry, with the end of the close link between CDC and Del Monte and the recent cooperation agreement between CDC and PHP, have strongly strengthened both the horizontal and vertical integration of the industry, with a strategic role played by PHP and Compagnie Fruitière. PHP is currently providing technical assistance to both the other firms in operation, is selling a significant portion of the bananas exported by CDC and the entire production of BOL, and is handling the shipment (by reefers) of all banana exports from the country. While this assures an easier and more efficient vertical coordination – from production practices in the field all the way to the supermarket shelf – which is in everybody's interest, it also poses evident questions from the point of view of the distribution of the value of the bananas among the actors involved along the chain. While all actors currently share an interest in expanding production and exports, reducing production costs, improving product quality, increasing product differentiation/ reputation at the retail level, reducing transaction and handling costs within the country, and maximising support to the industry (coming from the national government as well as from generous financial assistance provided by the EU), the interest of Compagnie Fruitière is to maximise its own profits, which include those of AEL (its own reefers shipping company) and of its ripening operations, while making banana production by the other firms profitable enough for them to decide to remain in business. In its decision making it also takes into account the non-trivial spill-over effects of developments in the banana sector in Cameroon on the profitability of its banana operations in other countries, including Ivory Coast and Ghana (e.g. possible benefits from the introduction of an 'African' label for high-quality bananas produced in the three countries, and implications for transportation costs, due to the fact that banana exports from the three countries are loaded on the same reefers, owned by AEL, stopping at different ports along the route).

All things considered, the overall positive development that has taken place in the banana sector in Cameroon over the years can be attributed in significant measure to the role played by Compagnie Fruitière. Recent developments may favour the position of Cameroon in the world banana market, but this will be highly dependent on the strategic decisions made by Compagnie Fruitière.

4. Conclusions

One of the goals of the paper was to discuss recent changes that occurred in the banana market over the most recent years, the factors that induced them and their implications for the distribution of market power among the actors involved in the different links of this important value chain. The evidence provided assigns a significant role to trade policy changes (the only relevant policies in this market being those of the EU), transportation technologies, consumer preferences and changes in the retail industry in reducing the market power of large multinationals and allowing the emergence of value chains alternative to the traditional ones.

The discussion of the structure and functioning of the banana exports industry in Cameroon, a rather extreme example characterised by the pervasive role played by a large multinational capable of controlling the entire industry while guaranteeing strong and effective horizontal and vertical coordination, provides a reference benchmark for analysing less clear-cut value chains. While providing elements that hopefully help in the understanding of some of the relevant changes that have been occurring in this important market, the paper also raises several questions that remain to be answered. The most important is the need to disentangle the complex negotiations taking place between retailers and their suppliers of bananas, negotiations that develop in an oligopoly/ oligopsony market framework. Understanding the distribution of market power between the two groups of actors, how they behave in this negotiation and what explains the actual outcome in terms of prices paid and received and volumes traded, is a necessary condition to then try to understand and model transmission mechanisms along the entire length of the chain, such as those explaining how changes in consumer preferences affect volumes traded and prices received by producers. The second area that requires additional research is the need to model these decisions in a way that represents a wider range of value chains.

Notwithstanding its limitations, the discussion and the results provided in the article have value outside the boundaries of the banana market, in that they can help identify and address potentially relevant factors explaining developments in other value chains in which large multinationals play an important role.

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