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RECONFIGURATION OF THE COCOA INDUSTRY AND POVERTY REDUCTION IN COTE D'IVOIRE¹

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Abstract

The aim of this paper is to study the Ivorian cocoa supply chain to determine ways to improve the financial windfall share (generated by the cocoa industry), which returns to Cote d'Ivoire through local actors. To achieve this goal, we made a descriptive analysis and schematized the different stages of the supply chain, from the farm gate to the sale of chocolate (in Western countries). This analysis has shown that actors located in consumer countries ensure the governance of this chain and also that the share of the value accruing to Cote d'Ivoire is very low.

The study also shows that the best way to improve the share of Cote d'Ivoire in the financial windfall generated by the cocoa industry is to create more value for local actors, and enable the achievement of successive stages of the value chain on the Ivorian domestic market.

So instead of limiting ourselves to the activities of production and export of cocoa beans to multinational grinders, the manufacture and distribution of chocolate (or cocoa-based products) worldwide should be performed from producer countries (particularly Côte d'Ivoire). This initiative will greatly reduce unemployment and improve the income of farmers, and therefore reduce poverty.

Keywords: value chain, cocoa, poverty reduction, Côte d'Ivoire, multinational firms, vertical integration

JEL classification: O13, L22, F23.

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1. Introduction

With nearly 40% of world supply and 50% of beans trade in the world since 1990, Côte d'Ivoire has positioned itself as the world's largest cocoa producer ahead of Ghana and Indonesia. The production of cocoa beans switched from 85,000 tonnes in 1961 to more than 1.4 million tonnes in 2012-13.

This product is very essential for the Ivorian economy and plays a very important role in terms of redistribution of income. Indeed, cocoa, along with coffee, generates more than 50% of export earnings, and makes up 10% of GDP. Cocoa production enables to inject significant cash flows in the Ivorian economic circuit and exports of cocoa beans are the main cause of a positive trade balance for the country. Cocoa enables to redistribute income to farmers and also enables the State to have significant room for manoeuvre through taxes in the sector. The marketing of cocoa replenishes the cash of some companies, enables commercial banks to get significant profit margins.

Cocoa follows a very complex transformation process from the farm gate to the purchase of the chocolate bar by the final consumer. The upstream actors of this industry are the producers of beans. They are a multitude of small farmers, exploiting in general plantations of less than 5 hectares and whose production activity provides a living for nearly a quarter of the Ivorian population (Malan, 2009).

Despite the importance of the cocoa industry for the Ivorian economy, Ivorian farmers remain very poor and the poverty rate has generally been increasing in Côte d'Ivoire between 1993 and 2008. The poverty rate switched thus from 32.3% in 1993 to 36.8% in 1995. In 2003, it ranged between 42% and 44.2% against 38.4% in 2002. In 2008, this rate reached 48.95% (DSRP 2010)².

In rural areas, the poverty rate switched from 49% in 2002 to 62.45% in 2008 against 24.5% and 29.45% over the same period in urban areas. Thus, agricultural areas are the most affected by poverty. Yet, agriculture contributes to GDP by 27%, employs two-thirds of the active labour force and provides, along with the agro-industrial sector, 40% of export earnings.

The poverty of the peasants of the cocoa sector is worrying. Despite the rank of world largest cocoa producer, Côte d'Ivoire shows a poverty rate in this sector that switched from 52.4% between 2002 and 2003 to 60.8% between 2006 and 2007.

Thus, the local actors of the so complex cocoa industry (mainly farmers) only get a very small share of the financial windfall it generates. Indeed, the activity of the Ivorian farmer, in this industry, comes down to the production of cocoa beans. However, only 4.1% of the value of the milk chocolate bar (in the UK, in 2004) returns to the producers of beans (Gilbert, 2006). In addition to that, the partial local processing of Ivorian cocoa is the work of an oligopoly of grinding multinationals that have vertically integrated the sector so as to ensure a continuous input supply. Small local businesses play, for the most part, the role of an intermediary in the sector. Indeed, these firms add value to the product by collecting beans at the farm gate and gathering them in suitable warehouses for exporters. They also add value to the product by clearing it of bad beans. However, their actions in this industry are limited only to those activities. Thus, despite the useful role played by these local firms in this industry, they get only a very small share in the value of the final cocoa-based product.

We thus realize that Côte d'Ivoire, through all the local actors in the cocoa industry, does not get much of the financial windfall generated by the cocoa industry. The biggest beneficiaries are the downstream actors of the industry, not forgetting that these downstream actors are also an oligopoly of multinational firms that have vertically integrated upstream.

How to restore the balance by retaining in Côte d'Ivoire a significant share of the financial windfall generated by the cocoa industry and thus help reduce poverty in this country?

It is this concern that justifies the study of the value chain of cocoa originating from Côte d'Ivoire.

The rest of the paper is organized as follows, section 2 provides a brief literature review and the third section presents the supply chain of the Ivorian cocoa. Section 4 analyzes the value chain of cocoa and the fifth section presents opportunities, challenges and solutions for improvement. The last section concludes the study.

²Le DSRP est le document stratégique de réduction de la pauvreté

2. Basic concept of the value chain

The term “value chain” was used for the first time by Michael Porter in his work *Competitive Advantage* (Porter 1985, p52). He explains that the analysis of the value chain enables to break down the activities of the company in sequence of elementary operations and identify sources of competitive advantage. Porter (1985) defined value as the optimum ratio between the needs of the client, on the one hand, and the costs associated to the product or service, on the other hand. The value therefore lies principally at the intersection of customer relationship – product – process. The analysis of the value chain is therefore a method, originally developed in order to examine the contribution of the different processes of the organization to its competitive advantage. It is based on the idea that the organization is composed of a chain of customer-supplier relationships, each of the intersections or interfaces of the chain having the aim of adding value to the product(s) or service(s).

In recent years, the term “value chain” was very often used to analyze everything that surrounds the value added by the actors to the product, from the raw material to the final consumer, via the transformation process. Lambert et al. (1998) gives an interesting image of the value added by choosing a particular manufacturing company and by setting the value added through the inclusion of all the actors directly involved in the business of adding value to products.

The value chain is defined now as the full range of activities and services required to bring a product or service, from its conception until its sale to the consumer on the final market, whether this market is local, national, regional or global. The value chain thus includes input suppliers, producers, processors and purchasers. These different actors are supported by service providers and benefit from a financial and technical assistance.

The key elements of the analysis of the value chain are the choice of the sector, market analysis (national and international), value chain mapping, performance measurement and benchmarking, and analysis of performance gaps. The choice of the sector is made by identifying its contribution to GDP, private investments in the sector, the relevant policy, potential employment, local value added and possible implementation. The market analysis concerns market shares, price trends, competition policy, connections in the global value chain, trends in technology and trends in global policy (e.g. trade). Regarding the value chain mapping, the focus is on activities which evolution has broken down (process activity breakdown), the industry structure, the interaction between regulators and commercial agents. The measurement of performance is about factor costs, transaction costs, value added and productivity. The analysis of performance gaps focuses on taxes, tariff and non-tariff barriers, the quality of infrastructure, regulatory barriers and their enforcement (regulatory barriers and enforcement), administrative barriers, market structure and competition policy, factor market rigidities (factor market rigidities), limitations/price subsidies, product quality and standards.

The analysis of the value chain is important at two levels (in terms of economic policy). In fact, it enables the government not only to increase the ability (capacity) of local companies to compete in the global economy, but also to improve employment opportunities and working conditions of local populations.

3. The supply chain of the Ivorian cocoa

The structure of the cocoa industry from Côte d'Ivoire is very complex with a multitude of stakeholders, from the production of the bean to the purchase of the chocolate bar by the final consumer. The transformation process of cocoa into chocolate began in the plantations in Côte d'Ivoire; values were gradually added to the cocoa bean at different successive steps of the process which ends in supermarkets mainly in Europe and the USA. This means that the actors in this industry are both local and international. The key local actors in this industry are farmers, cooperatives, “contractors”, exporters and local grinders (ADM, Cargill, Barry Callebaut and Cemoi). To them, we could add all the support structures (ANADER, CNRA, etc.), which through their activities of research, education, advisory, supervision, etc., contribute to improve the quality of the product, the yield, the income of farmers and the sustainability of cocoa cultivation.

At the international level, we find the same grinders (ADM, Cargill, Barry Callebaut), trading houses, chocolate makers, supermarkets, etc. The world's largest grinders are present on both sides of the cocoa industry (the domestic market and the local market).

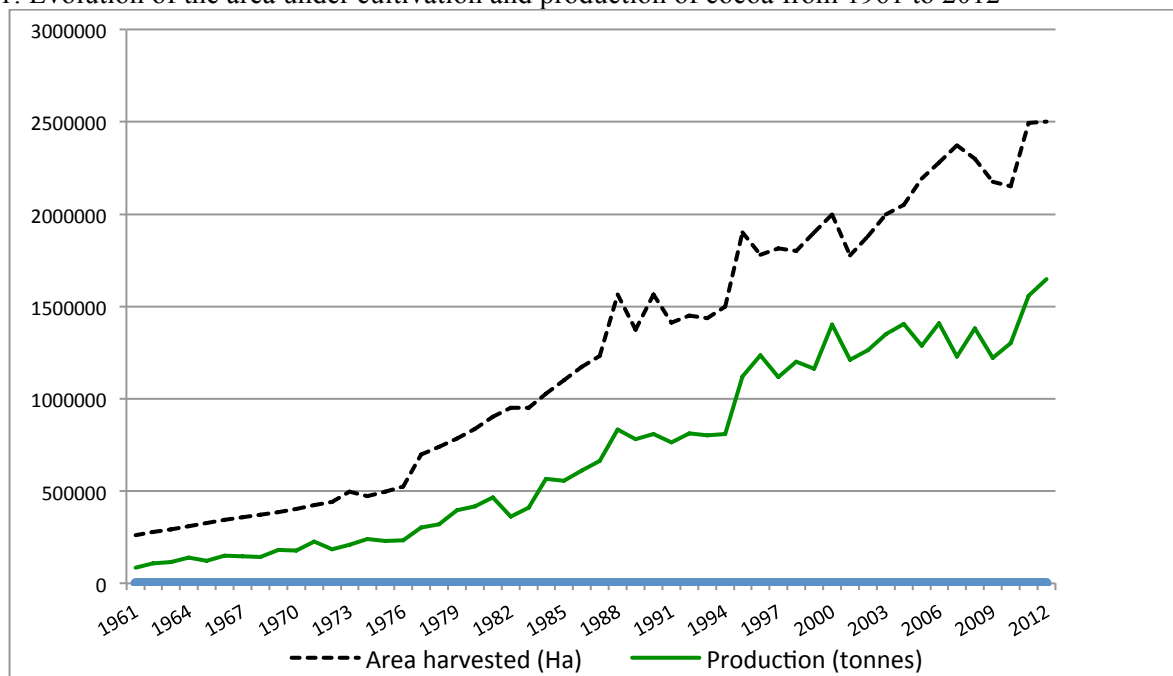
3.1. Activities in Côte d'Ivoire

3.1.1. Production of cocoa beans

The production of cocoa is carried out in Côte d'Ivoire. Ivorian producers are farmers whose main agricultural activity is the cultivation of cocoa, very often as family-owned business. In their majority, they hold small plantations which areas range between 1.5 and 5 hectares. During the 2002-2003 campaign for example, 84% of cocoa production came from farms which areas were less than 5 hectares (BNETD, 2003). The number of Ivorian farmers, producers of cocoa beans, is estimated at more than 700,000. Cocoa production has developed very quickly, switching from 85,000 tonnes in 1961 to more than 1.3 million tonnes in 2013. Similarly, the area under cultivation increased from 260 thousand hectares in 1961 to 2.5 million hectares in 2012 (See FAOSTAT). Figure 1 below shows the comparative paces of cocoa production and areas under cultivation. Thus, we can notice that cocoa production is an increasing function of the area under cultivation.

Despite this dramatic increase in production, it remains fragmented and spatially dispersed in the southern half of the country. Thus, because of the smallness of the size of their production and their spatial dispersion, it is expensive for farmers to carry their product themselves to the exporter for sale. They prefer, for the most part, to sell at the farm gate to local intermediaries.

Figure 1: Evolution of the area under cultivation and production of cocoa from 1961 to 2012



Source: Based on data from FAOSTAT, www.fao.org

3.1.2. Local collection

It is carried out mainly by cooperatives and private intermediary firms (*the contractors*).

Cooperatives

Cooperatives are essentially cooperatives of bean collection. They collect the product in the bush from their members and resell it either to contractors or straight to exporters. For that purpose, they have or rent vans and trucks. They have the reputation of providing the domestic market with best quality products. During each campaign assessment, the cooperatives redistribute a portion of profits to farmers.

They often take the products on credit and pay the farmers, once the sale is completed, within 3 to 7 days. Their operations can be guaranteed by the Guarantee Fund for Coffee and Cocoa Cooperatives (FGCCC) up to 80% and by exporters, for the 20% remaining.

Despite their continuously growing number, they collected and marketed in 2003, on average only 20% of the global production (BNETD, 2003). During the 2003/2004 campaign, the number of

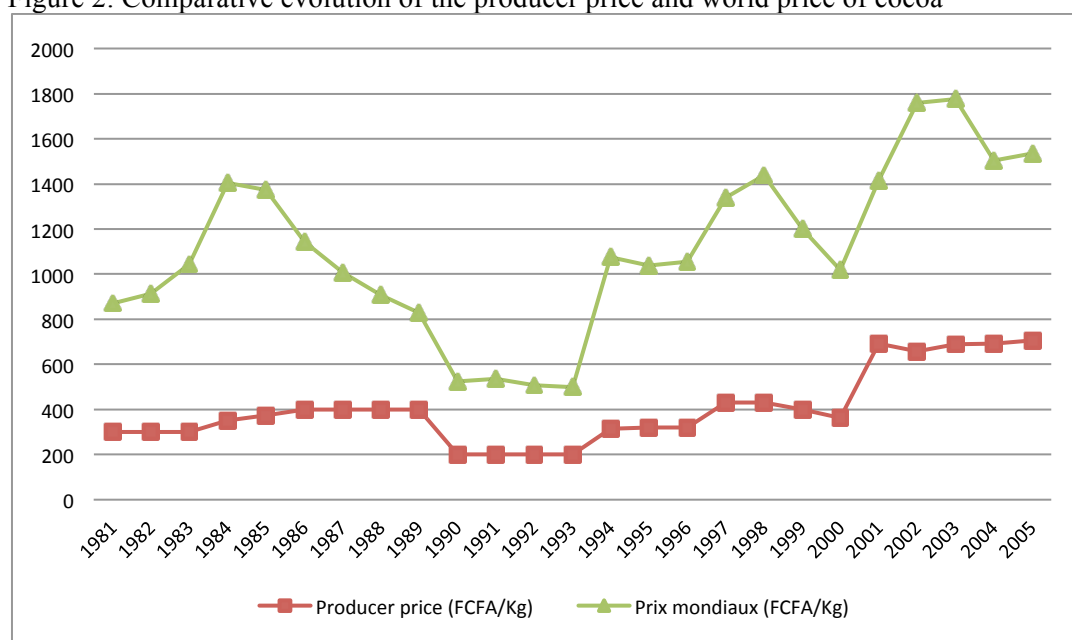
approved coffee and cocoa cooperatives was estimated at 620 (MINAGRA, 2004). Today, there are 2,933 (according to the general directorate of the Coffee-Cocoa Council³, 2013).

The purchasers (contractors and trackers)

The collection and transportation of the cocoa bean to the different shipping ports, where exporters are based, are made by purchasers called “*Contractors*”. The contractors are based in cities of the main production areas and act through their agents called “*Trackers*”. The trackers, whose population is around 3,000, are thus the main intermediaries between producers and contractors. They purchase, on behalf of contractors, products at the farm gate from farmers, and then convey them to the warehouses of contractors. They have a better knowledge of the production areas and operate with motorcycles.

The contractors were approved by the former Coffee and Cocoa Regulatory Authority (ARCC) (now Coffee and Cocoa Council). During the 2002-2003 campaign, there were 726 approved contractors against 188 for 2006-2007. The contractors collect each year, nearly 80% of the global production.

Figure 2: Comparative evolution of the producer price and world price of cocoa



Source: Based on data from the ICCO and FAO

3.1.3. Local processing

Some firms provide local processing of a certain amount of the production of cocoa beans into semi-finished products, that is to say, powder, butter, cocoa paste, etc. Table 1 below gives the beans equivalent of cocoa products.

Table 1: Conversion factors in beans equivalent (kg of beans per kg of product)

	FAO	Ivorian authorities
Cocoa liquor	1,25	1,25
Cocoa powder and press cake	1,18	1,25
Cocoa butter	1,33	1,25
Chocolate product	-	0,55625

Sources: Pontillon (1997:24) for FAO

³The Coffee-Cocoa Council is the new management body of the coffee-cocoa sector in Côte d'Ivoire. It was set up after the post-election crisis, with the primary mission to return to a centralized management of the sector through the PVAM (Average Anticipated Sales Programme).

There are four main local grinders that are SACO, MICAIO, UNICAIO and CEMOI, with a total grinding capacity of 350,000 tonnes, that is, nearly 24% of annual production. The particularity of these different local grinders is that they are all processing plants of certain foreign raw beans exporting firms. These firms therefore have two divisions, the one purchases cocoa beans for resale on the world raw market and the other one partially processes the beans purchased to resell derivative products (liquor, powder, butter) on the world semi-transformed market. Table 2 shows the grinding capacity of each of these plants as well as their group membership.

Table 2: Main cocoa beans processing plants in Côte d'Ivoire and their grinding capacity since 2002

Processing plants	Group membership	Grinding capacity
MICAIO	Cargill	100 000 tonnes / year
SACO	Barry Callebaut	100 000 tonnes / year
UNICAIO	ADM (Arthur Daniel Midland)	85 000 tonnes / year
Cemoi	Cemoi group	65 000 tonnes / year

Source: Malan (2008)

Local processors get the cocoa bean either from cooperatives or from contractors, or straight from farmers.

3.1.4. Export

Exporters are private companies that purchase cocoa beans from intermediaries (contractors and cooperatives) to resell them later on the international market. There are three categories of exporters:

- Exporting cooperatives (Coopex);
- Small and medium-sized exporters (SMEX), which are local private firms;
- *Foreign exporters*: they are often multinational firms or subsidiaries of trading houses. They are organized in the Professional Association of Exporters of coffee and cocoa (GEPEX).

Exporters are approved by the coffee and cocoa regulatory authority. During the 2005/06 campaign, 90 exporters were approved. 11 exporters carried out 75.8% of purchases on the field (equivalent to 964,800 tonnes). 40 exporters are in the range of those having a tonnage below 10,000 tons, often between 0 and 1,000 tons and are for the most part Coopex and Smex (BCC). The respective market shares of Coopex and Smex were approximately 5% and 5.7% for the 2004-2005 campaign (ACE, 2005). For the 2006-2007 one, 101 exporters were approved of which 38 Coopex, 20 Smex and 43 exporting companies.

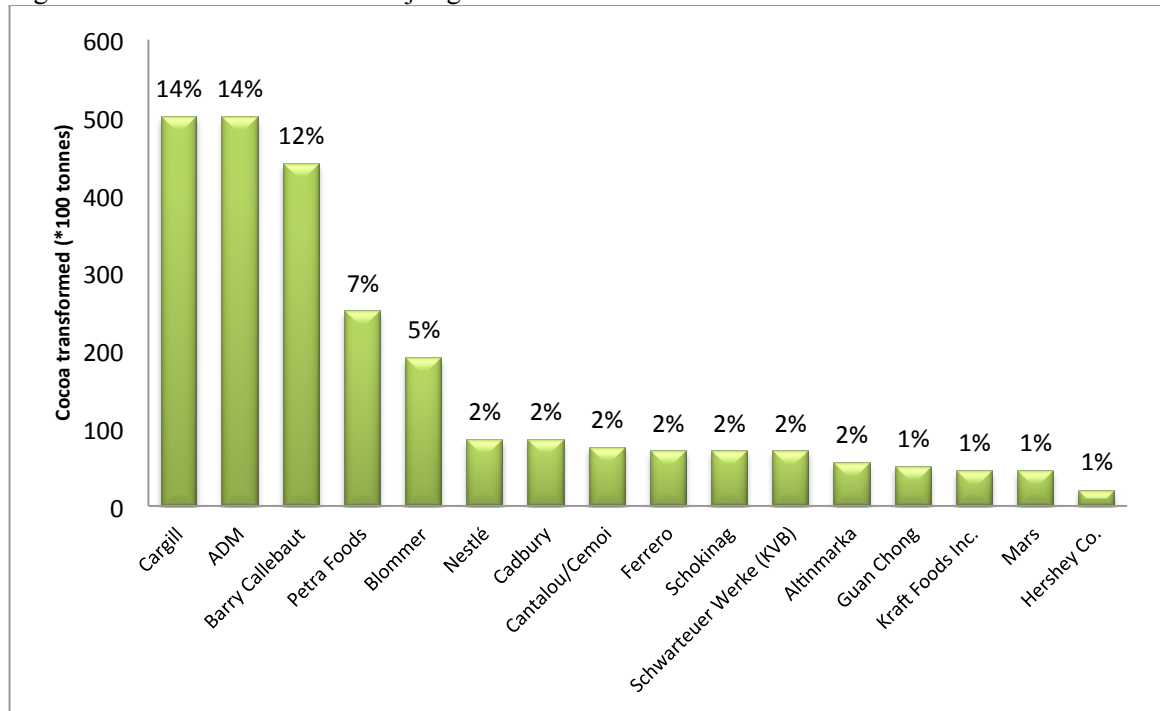
3.2. Actors and activities outside Côte d'Ivoire

The raw bean from Côte d'Ivoire is exported either to downstream processing plants of foreign firms present on the Ivorian local market or to independent industrial and manufacturers in Western countries. The latter directly manufacture finished products or products intended to chocolate and biscuit industries and craftsmen that have not invested in the direct processing of cocoa beans.

Three major firms process more than 40% of cocoa beans produced in the world. Figure 3 shows the market shares of the main world bean grinders in 2007. These multinationals are established indeed in Côte d'Ivoire; they are Barry Callebaut, Archer Daniels Midland (ADM) and Cargill. ADM and Cargill are U.S. multinationals and more than half of the cocoa processed in Côte d'Ivoire is exported to the U.S. (nearly 53%). The remaining percentage (nearly 47%) percent is exported to the European continent by the Franco-Swiss Barry Callebaut and the French Cemoi. Once in the destination country, derivative products either supply the relay processing plants of the same multinationals, or are sold to chocolate makers and in the pharmaceutical industry.

The Netherlands and the United States are the main importers of cocoa beans originating from Côte d'Ivoire with respective market shares of 26.7 and 25.8% (corresponding to 311,203 and 300,256 tonnes). The other countries, customers of Côte d'Ivoire, are France, Belgium, Estonia, The United Kingdom, etc. However, the Asian market offers new opportunities for the Ivorian cocoa. Up to now, the share of this market in the Ivorian exports is 6.6%.

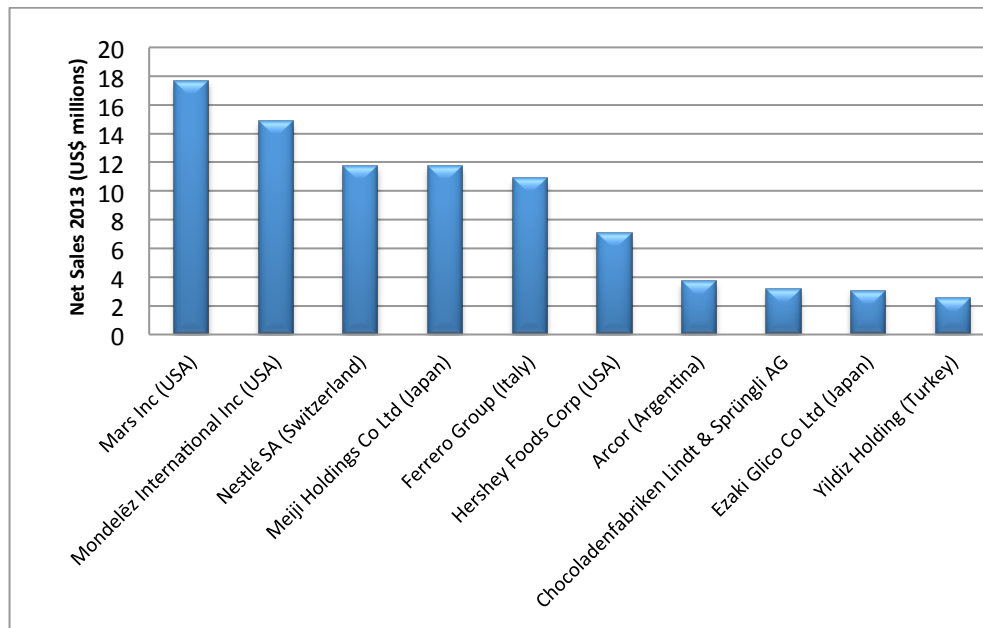
Figure 3: Market shares of the major grinders of cocoa beans in 2007



Source: Based on data from the ICCO

Chocolate is the main destination of the cocoa bean. Thus, the activity of making chocolate or chocolate products is very active in the Occident. The chocolate industry is relatively concentrated. Indeed, the ten (10) largest chocolate makers share more than 40% of the global chocolate market (see ICCO). Among the six chocolate-making multinationals, three are American: Hershey, Mars and Philip Morris. The three others are European: the Swiss giant Nestlé, the British Cadbury-Schweppes and the Italian Ferrero. They are constantly searching for new markets, developing new products, and launching new advertising campaigns.

Figure 4: The major global chocolate industries (the main manufacturers of chocolate in the world)



Source: *Candy Industry*, January 2014

* This includes generation of non- confectionery items

4. The value chain of cocoa

The switch from the supply chain to the value chain consists in attaching values to each of the stages of the supply chain. This exercise is very complex with regard to cocoa in the sense that chocolate is a very heterogeneous product (it incorporates other key inputs other than cocoa) compared to soluble coffee, for example.

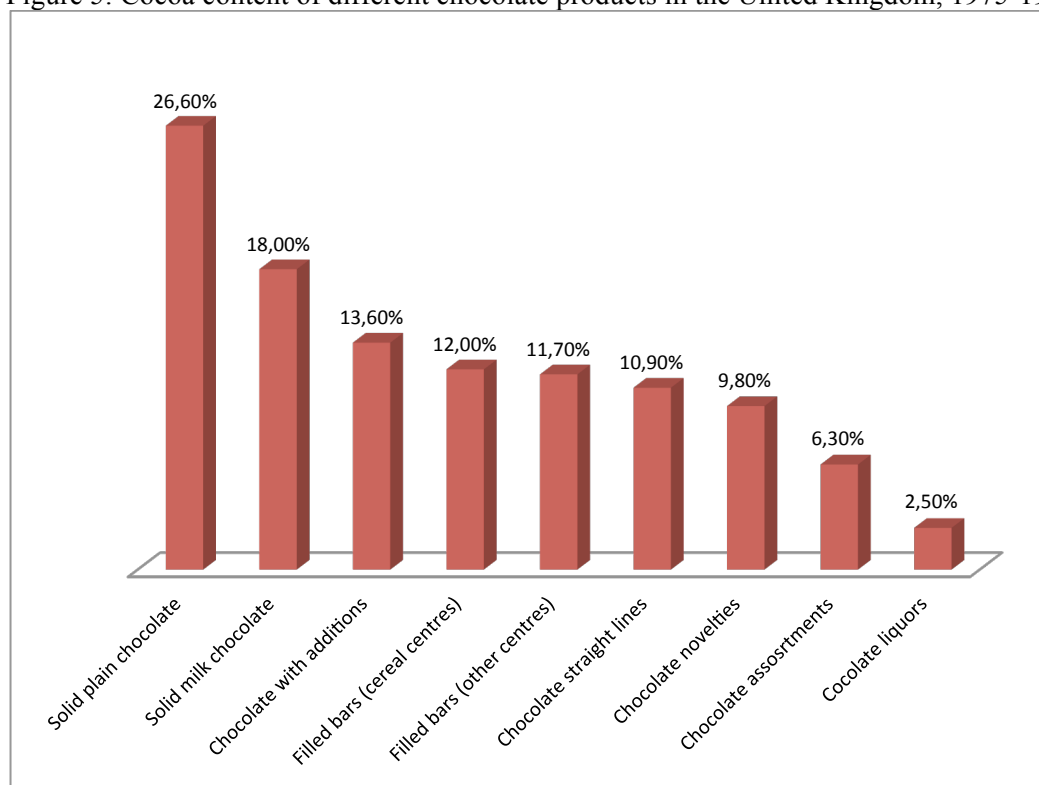
The analysis of the value chain leads to several questions. How can a cocoa bean become a chocolate bar? How is the price X of a chocolate bar set? At which level, in the transformation process of cocoa bean into chocolate bar, is the contribution to the value of the product most important? How much of this value returns to Côte d'Ivoire? How is it that the actors at the lower level of the supply chain earn much less than the chocolate makers and retailers at the upper level?

The answers to these questions are the focus of the study of the value chain.

Cocoa content of chocolate products

To produce chocolate, we necessarily need cocoa and other inputs, including milk and sugar. The cocoa content of a particular chocolate product therefore depends on the “recipe” of the producer. In addition to that, there is a wide variety of chocolate products and recipes vary from one consumer country to another. Graph 5 below shows the average cocoa content of certain chocolate products in the United Kingdom, given by a study in ICCO (1990), over the period 1975-1988. Thus, the graph shows that the cocoa content of chocolate products in the United Kingdom varies from 26.5% (for the solid milk chocolate) to 2.5% (for chocolate liquors). This study also shows that the weighted average of these nine varieties of products is 11.3%. Similarly, on average, cocoa counts for 39.4% of the cost of raw materials of chocolate products.

Figure 5: Cocoa content of different chocolate products in the United Kingdom, 1975-1988



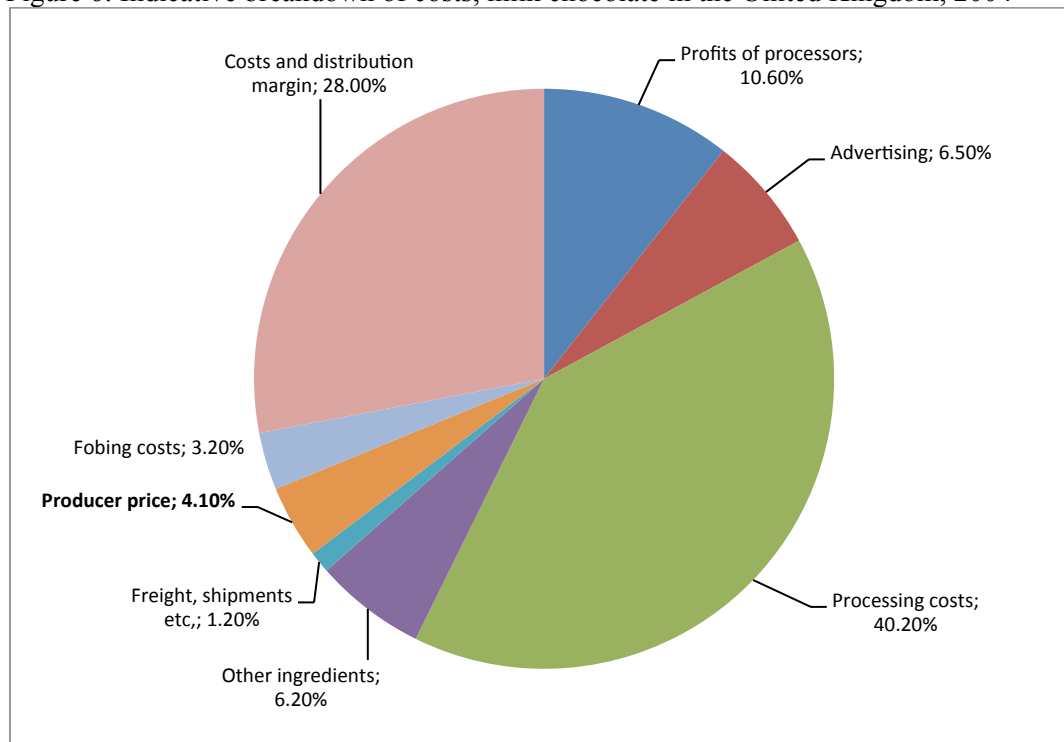
Source: ICCO (1990)

Chocolate price breakdown

How is the price of a chocolate bar set? The work of Gilbert (2006) answered this question. As we noted above, in addition to being a very heterogeneous product, chocolate is the result of a very complex transformation process with a multitude of stakeholders at different stages of the process. The value attached to each of the stages of the process determines the contribution, the rent captured by

corresponding actors at this stage. Gilbert (2006) provides information on the distribution of value in the transformation process of the cocoa bean into milk chocolate in the United Kingdom. Thus graph 6 gives us an indicative contribution of stakeholders (in the milk chocolate industry) to the pricing of this product in 2004. This graph shows that the producer price represents 4.1% of the market value of the milk chocolate bar. This means that only 4.1% of the wealth generated by a milk chocolate bar goes to the farmer, producer of the cocoa bean. When we include transportation costs, the total costs to bear in order to get the raw material is estimated at 14.7% of the chocolate price. Processing and distribution costs make up the most important shares of the total (respectively 40.2% and 28.0 %).

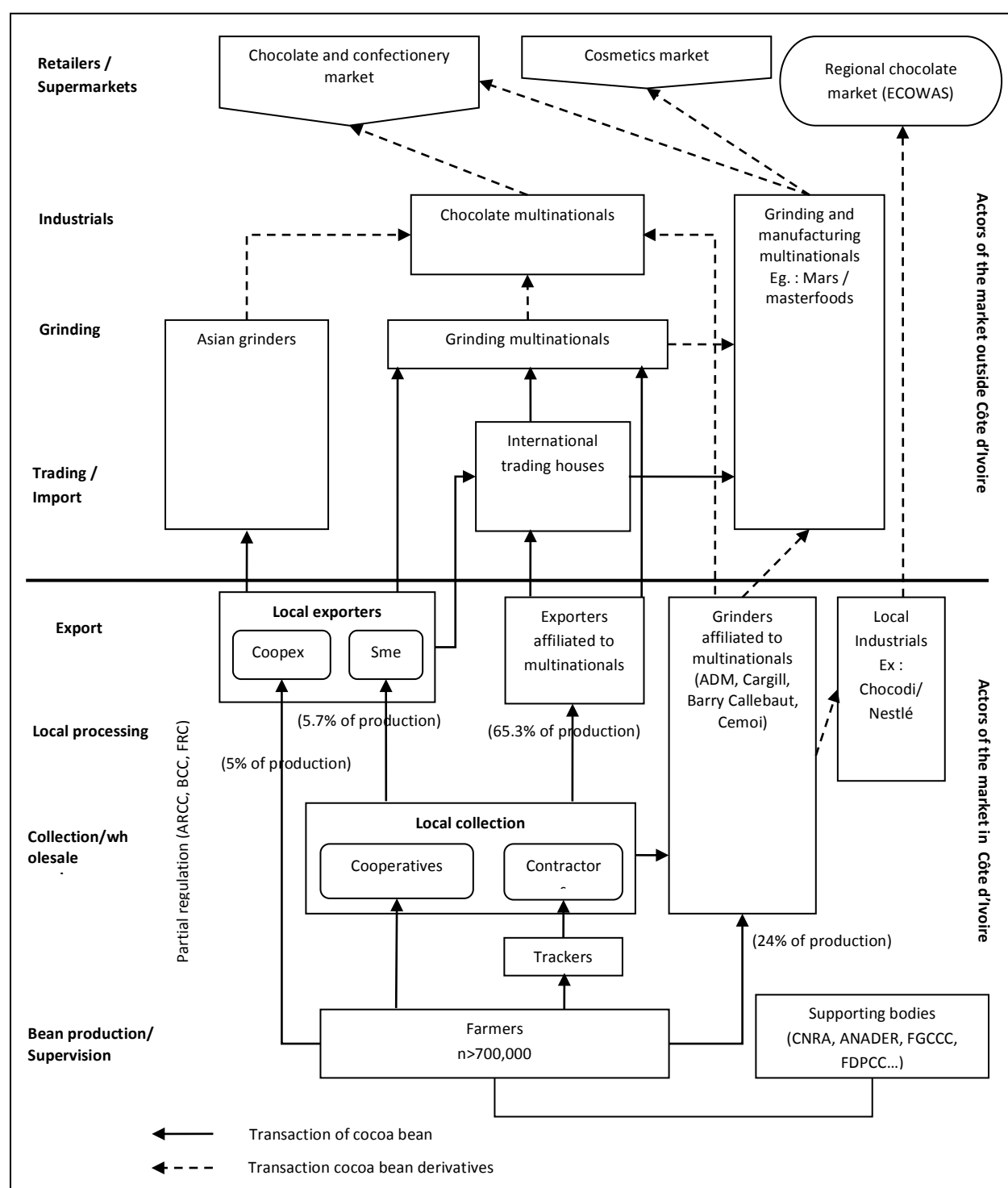
Figure 6: Indicative breakdown of costs, milk chocolate in the United Kingdom, 2004



Source: Gilbert (2006)

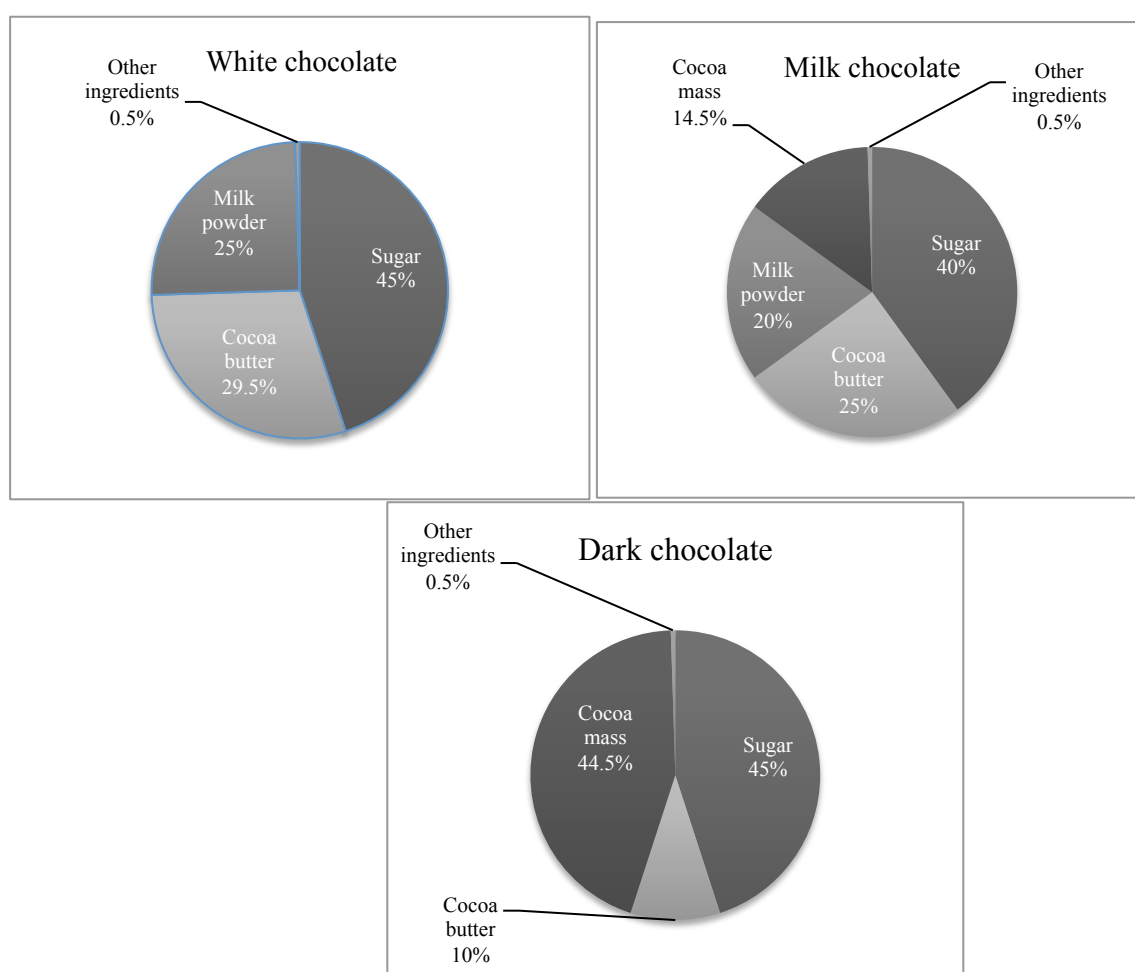
Furthermore, this graph informs us indirectly on the share of chocolate value that goes to the farmers of producing countries and to Côte d'Ivoire in particular. Indeed, the mapping of the value chain shown in graph 7 indicates that the activity of Ivorian local firms in the cocoa industry consists mainly in the production of cocoa and, partly, in its export (less than 11% of cocoa exported by the country). Since local exporters sell fob, this assumes that the transportation costs they bear are those required by the conveying of cocoa beans from the farm gate to the port of Abidjan or San Pedro. In general, according to figure 6, the share of such costs in the value of milk chocolate is estimated at 3.2%. Thus, the wealth recovered by local exporters (when the bean originates from Côte d'Ivoire) represents approximately 0.35% of the wealth generated by the milk chocolate industry. This means that the share of the value captured by Ivorian nationals is very low and around 4.5%.

Figure 7: Mapping of the value chain of Ivorian cocoa



Source: Based on investigations of the author

Figure 8: Composition of chocolate



Source: LE CACAO: Un levier de développement, available at: http://modulas.kauri.be/Uploads/Documents/doc_1511.pdf

5. Challenges, opportunities and improvement solutions

The analysis of the cocoa value chain enables us to identify challenges and opportunities, and to propose solutions to improve the situation of national actors and/or local companies.

The mapping of the value chain of cocoa originating from Côte d'Ivoire, represented by graph 6 above enables, not only to highlight the interactions between the main actors and their roles, as well as vertical relationships in this cocoa industry, but also and especially to identify the levels at which the rent is accumulated. Thus, the graph shows that the rent is accumulated at successive levels of all the cocoa industry (from bean production to final consumption of chocolate), in Côte d'Ivoire as well as outside the Ivorian territory.

In Côte d'Ivoire, there is cocoa rent accumulated at the level of:

- *Production and supervision*, by farmers and by organizations such as management bodies (ARCC, BCC, FRC) and supporting organizations (CNRA, ANADER, FGCCC, FDPCC, ANAPROCI...);
- *Local collection*, by cooperatives, “contractors” (and “trackers”) and local grinders (Micao, unicao, sacco, cemoi);
- *Local processing*, by the same local grinders and at a very fine scale by industrials such as Nestlé (Chocodi);
- *Export*, by local exporters of raw (Coopex and Smex), exporters of raw affiliated to multinationals (and international trading houses) and local grinders (that export semi-processed products), but also by industrials such as Nestlé (that export chocolate products in the sub-region).

Outside the territory of Côte d'Ivoire, the cocoa rent is accumulated at the level of:

- *International trade (import)*, by the international trading houses, by multinationals that are both grinders and manufacturers (Mars/ masterfoods) and Asian grinders;
- *International grinding*, by grinding multinationals (ADM, Cargill, Barry Callebaut, Cemoi) Asian grinders and by multinationals that are both grinders and manufacturers;
- *Industrials* (chocolate ones), particularly at the level of chocolate multinationals (Nestlé, Cadbury Schweppes, Mars/Masterfoods, Hershey FoodsCorp, Kraft Foods, etc.);
- *Supermarkets and retailers*.

Thus, we deduce that the governance of the cocoa value chain is ensured by a few multinational firms, both locally and outside Côte d'Ivoire.

At the local level the leading firms which control the cocoa value chain are ADM, Cargill, Barry Callebaut and Cemoi. On that domestic market, these leading firms determine and/or apply the conditions under which other actors in the chain must work.

Outside Côte d'Ivoire, there are several value chains that lead to different end consumer markets. These chains are also controlled by some large leading firms: first of all, the three large grinders (ADM, Cargill and Barry Callebaut), then the big industrials such as Nestlé, Kraft Foods or Ferrero, and finally some retailers/ major market chains that impose the price and quality for a chocolate bar (for example ALDI, Walmart, Champion, Fortum&Mason , etc.).

The upstream of the value chain depends largely on the global bean price and/or cocoa derivative products, which is the result of speculative strategies in London. Much of the wealth generated by the industry is accumulated outside the local market of Ivorian cocoa. Global purchasers (such as ADM, Cargill and Barry Callebaut) can get supplies straight from farmers at the farm gate in the world. They may therefore have an oligopsony power and may thus use it to control all the beans supply to the detriment of farmers (by influencing the pricing and taxation policy of governments).

The production methods vary at different levels of the chain. While the downstream of the chain is controlled by a capital-intensive mass production and sophisticated services, the upstream of the chain is determined by labour-intensive and arable land-consuming production methods.

How can we improve the situation of cocoa smallholders?

Here, the goal is to provide improvement solutions, that is to say, to see how we could keep in Côte d'Ivoire a larger share of the wealth generated by the cocoa industry.

The ideal way to improve the situation in Côte d'Ivoire, and thus create more value for farmers and local actors, is to enable the achievement of more successive stages of the value chain on the Ivorian domestic market. Thus, instead of being limited to the export of cocoa beans to grinding multinationals and/or chocolate industrials based in Europe and the United States, the making and distribution of chocolate worldwide should be carried out from Côte d'Ivoire. Since Côte d'Ivoire supplies nearly 40% of global shipments of cocoa beans, the new configuration of the cocoa industry will enable to generate lots of jobs and retain a large share of the chocolate value in the country. It will therefore help to significantly improve the farm gate price and thus the cocoa farmers' income because under these conditions, there will be less pressure on firms in the acquisition of their essential input.

However, the expected results of this new configuration of the cocoa industry strongly depend on the quality of the relationships to be created with partners such as retailers and supermarkets based in Europe and the USA so as to be able to sell the product.

Cocoa is produced mainly in the South, but consumed primarily in the North. Thus, the production of chocolate and/or cocoa-based products originating from Côte d'Ivoire shall meet the demands and requirements (in terms of food standards) of the European or American consumer.

Conclusion

The analysis of the cocoa value chain enabled us to get a better understanding of all the cocoa industry. It showed that the governance of this chain is ensured by actors located in consumer countries and also that the share of the wealth generated by the industry and returning to Côte d'Ivoire is very low. Thus, to retain more value in Côte d'Ivoire, it would be important to develop a chocolate production strategy that involves local actors, from the farm gate to the export of the finished product to Europe and North America. This ambitious initiative could, not only greatly reduce the

unemployment rate in the post-crisis period, but it could also and essentially help improve in the end the farmer's income. This reconfiguration of the cocoa industry requires first and foremost the provision of markets opportunities for the chocolate originating from Côte d'Ivoire through well-established contracts between local actors and European and North American retailers/supermarkets. The local production of chocolate should be made according to the standards and requirements of the Western consumer. This restructuring cannot be achieved without the assistance of the Ivorian government.

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