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Research Report

Strategies for sustainable upgrading in global value chains: The Ivorian and Ghanaian cocoa processing sectors

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Strategies for sustainable upgrading in global value chains: the Ivorian and Ghanaian cocoa processing sectors

Jan Grumiller, Hannes Grohs, Werner Raza, Cornelia Staritz, Bernhard Tröster

This policy note presents policy recommendations for a sustainable development strategy targeting the Ivorian and Ghanaian cocoa processing sectors. Against the backdrop of a comparatively small share of processed cocoa exports and limited opportunities in the cocoa global value chain, industrial policies should primarily seek to leverage the increasing opportunities in the local and regional as well as in niche global export markets to further promote local value added and linkages through the processing of cocoa beans. This is particularly important in the context of the Economic Partnership Agreements (EPAs) that both countries have negotiated with the EU.¹

Overview of the Ivorian and Ghanaian cocoa processing sectors

Côte d'Ivoire (43%) and Ghana (20%) are by far the largest producers of cocoa beans with around 63% of the global cocoa beans production in 2016/17, producing mainly Forastero cocoa beans ('bulk cocoa') (ICCO 2017). Both economies are highly dependent on the exportation of cocoa, exemplified in the export share of cocoa products in total merchandise exports of 43% in Côte d'Ivoire (2015) and 18% in Ghana (2016) (UN Comtrade 2017). The sectors in Côte d'Ivoire and Ghana are regulated by the Conseil du Café-Cacao (CCC) and the Cocoa Marketing Board (COCOBOD) respectively. The Ivorian cocoa sector was deregulated during the 1990s in the context of structural adjustment programs (SAPs). Since 2011, the sector has however been re-regulated, whereas Ghana has withstood the deregulation and the abolishment of COCOBOD, respectively.

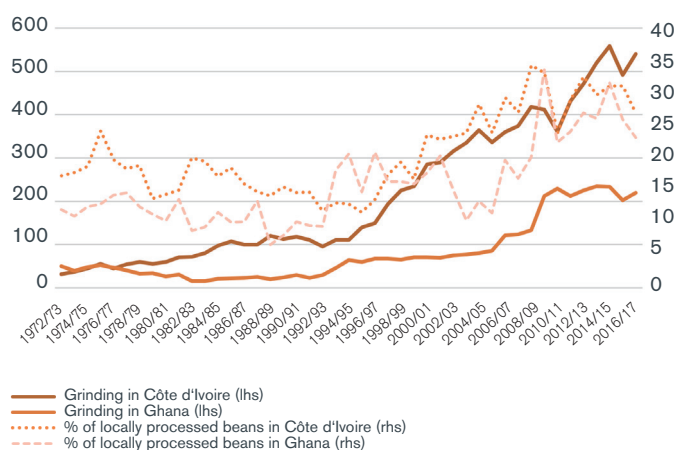
After cocoa beans production, the cocoa global value chain (GVC) has two major processing steps: grinding – i.e. producing intermediate products such as cocoa liquor, butter and powder, and the manufacturing of chocolate and cocoa confectionery. Fold (2002) describes the cocoa value chain as having a bi-polar governance structure, since the relative absence of vertical integration along the whole chain and the high level of concentration in both processing segments put forward two sets of actors with strong control over the value chain. Retailers set the price of chocolate products in the consumption market and decide whether certain products are included in their offer. However, their control over the supply chain is rather limited compared to the dominant role of chocolate manufacturers and cocoa processors.

Grinding adds comparatively little value relative to chocolate manufacturing (Gilbert 2006; Cocoa Barometer 2015) and has smaller linkage potentials (Grumiller 2018). Since ground cocoa products are priced with different mark-up ratios based on cocoa bean futures prices, they have a similar price volatility as beans (Araujo Bonjean/Brun 2016). The price volatility of ready-to-eat chocolate products, on the other hand, is much lower since chocolate manufacturers and retailers do not necessarily pass through short-term changes of the price of beans. Origin countries with an economy dependent on cocoa exports can thus only reduce income volatility by increasing the export share of ready-made chocolate products or by exerting greater control over the export price of cocoa beans.

Cocoa processing used to be located almost exclusively in key consumption markets (esp. the EU and the US), but multinational grinders have increasingly relocated their grinding facilities to producer countries (origin grinding) in the context of changing sector regulations, technological advances in transportation and shifting strategies of lead firms (Fold 2002; Gilbert 2009; Araujo Bonjean/Brun 2016).

In this context, Côte d'Ivoire and Ghana were able to promote the development of grinding sectors with different success and with foreign-direct investment (FDI) oriented industrial policies playing an important role (see Grumiller 2018 for more details). Hence, the process has been FDI-led with multinational grinders exploiting tax- and price-incentives dominate the sectors. The expansion of grinding capacities and output since the 1990s in Côte d'Ivoire and the mid-2000s in Ghana (Figure 1) shifted their integration in the cocoa GVC from supplying cocoa beans to supplying cocoa beans and intermediate products.

Figure 1: Growth of grinding output in Côte d'Ivoire and Ghana (thousand tons, 1972/73-2016/17)



Source: Grumiller 2018: Figure 2.

In Côte d'Ivoire, the key incentive for processors is a conditional tax break on the single export tax (*droit unique de sortie*, DUS) for processed cocoa products and tax incentives of investment zones. The DUS (14.6% at the time of writing) has been reformed repeatedly, but today it offers conditional tax breaks between 1.4 and 5 percentage points for intermediate products (cocoa mass, butter and powder) for processors who agree to increase their capacities within five years – depending on their size – between 7.5% and 15% (ibid.). Côte d'Ivoire is also a comparatively attractive location for processors due to low electricity prices, but the political instability of the 2000s and beyond has constrained growth.

In Ghana, origin grinding has been furthered by a discount on light crop beans, export-processing zone benefits and indirectly by the political instability in Côte d'Ivoire. Processors in Ghana benefit from a 20% price discount on light beans. Since light crop beans trade at a lower price on the international market, the real discount is equivalent to around 7.5% (COCOBOD 2017). The key challenges for the Ghanaian grinding sector are the limited availability of light crop beans as well as high electricity prices and unreliable power supply (Grumiller 2018).²

In both countries, the governments seek to increase the share of locally processed cocoa beans to 50%, but GVC dynamics and local sector conditions severely constrain the growth potential of the grinding sectors. First, the growth of grinding capacities in producer countries has led to overcapacities and reduced margins for grinders. Second, investment and operational costs are comparatively high in Côte d'Ivoire and particularly Ghana, making tax- and price-incentives and the subsidization of the grinding sectors at the cost of reduced smallholders and/or governments' income a 'necessity'. The global overcapacities and high operational costs have led to low capacity utilization rates in both countries.

Chocolate manufacturers continue to be primarily located in key consumption markets. The chocolate manufacturing sectors in Côte d'Ivoire and Ghana are small, since export opportunities beyond regional and niche markets are limited.

The recent growth of local and regional chocolate and cocoa confectionary consumption together with protective tariffs have however furthered upgrading processes into chocolate manufacturing of both locally owned and more locally embedded foreign grinders. The growth of 'origin manufacturing' will thus mainly be determined by the future development of local and regional demand for chocolate products in the low- and lower-middle income countries of (West)Africa and the ability to capture market shares in niche export markets.

In sum, we conclude that the scope for the development of additional forward linkages to processing in the Ivorian and Ghanaian cocoa sectors is limited, particularly in GVCs geared to traditional overseas end markets. Nevertheless, there are opportunities in local and regional markets that need to be leveraged by strategic industrial policies, which go beyond FDI-oriented and incentive-based export promotion policies and focus on the opportunities in local and regional markets and related value chains (ibid.).

Policy recommendations

Based on field research conducted in 2017 as well as a GVC- and SWOT-analysis presented in Grumiller et al. (2018b) and Grumiller (2018), a cocoa sector development strategy in Côte d'Ivoire and Ghana should seek to promote forward linkages to processing via strategic industrial policies that go beyond the FDI-oriented and incentive-based export promotion policies. In addition, locally embedded grinders and chocolate manufacturers need to be supported more directly in order to benefit from the opportunities in local and regional markets and related value chains.

1. Carefully promote a 'grinding hub'

The promotion of 'origin grinding' can be beneficial but the development of global grinding capacities and the cost of incentives need to be carefully monitored and evaluated. Developing 'origin grinding' has been comparatively costly for Côte d'Ivoire and Ghana due to the price- and tax incentives, particularly as the apparent benefits in terms of further linkages and employment creation have been small. Many multinational grinders active in Côte d'Ivoire and Ghana are also not expected to functionally upgrade into chocolate manufacturing since they are specialized in the trade of cocoa beans and grinding and only to some extent in the production of industrial chocolate. The promotion of grinding should thus carefully consider the costs relative to the long-term benefits, and in particular promote Ivorian and Ghanaian grinders that are more likely to functionally upgrade into higher value-added chocolate manufacturing in the future. The goal of both countries to grind 50% of the total cocoa bean production in the next few years thus needs to be critically examined particularly in the case of Ghana, where electricity costs are high and the sector needs to be subsidized.

Côte d'Ivoire and Ghana currently have different incentives in place to promote 'origin grinding'. In Côte d'Ivoire, the DUS reform of 2011 removed the costly incentive to entertain or increase grinding capacity in Côte d'Ivoire. The DUS reform

at the end of 2016 however re-introduced tax reductions in the case grinders commit themselves to increase their capacities. The current incentive scheme is likely to have positive impacts on the grinding capacity and will thus arguably benefit Côte d'Ivoire in the longer term. Policy makers in Ghana have less policy flexibility due to comparatively higher electricity costs, which makes grinding unprofitable. Ghana offers a discount on light beans and tax incentives, which are the main reasons for increases in grinding investments in the last decade. The need to maintain the discount in order to sustain the grinding sector in Ghana has been very costly. Its longer-term benefits will depend upon an eventual decrease in electricity prices, the latter allowing for the reduction or abolishment of the discount and the further development of linkages to chocolate manufacturing. A transparent monitoring and evaluation system for the long-term benefits and costs of the incentive structures and the introduction of conditional incentives as in the case of Côte d'Ivoire could improve the net benefits. The conditionality of the incentives could be linked to additional investments, capacity utilization rates, employment creation or the creation of further linkages to chocolate manufacturing.

Locally-owned grinders should furthermore be supported with credit lines in order to reduce the working capital requirements for the purchasing of beans. Credit lines for grinders are of major importance, since non-multinational firms face high costs of finance. In Ghana, such a scheme had to be abolished after various – mostly Ghanaian – grinders did not repay their debts in 2014/15. This led to several of these firms going bankrupt. Multinational grinders should furthermore be incentivized to foster linkages with the local grinding sector, in particular with respect to technology transfer. The limited bargaining power of the government vis-à-vis multinational grinders might however impede such a strategy, particularly in the case of Ghana.

The growth of the grinding sector would be particularly beneficial, if a 'critical mass' were to be achieved in the longer term and the import of cocoa beans from different regions at a competitive price became feasible, thus easing the 'single origin challenge' (see ACET 2014). The global and national overcapacities in the grinding sector however call for careful expansion planning. A government-backed import scheme – potentially in cooperation between Côte d'Ivoire and Ghana – would potentially mitigate the volatility of local bean supply and enable grinders to globally source best-priced and differently flavored beans (ibid.).

2. Extend chocolate manufacturing for the local and regional market

The manufacturing of chocolate products (incl. branding) is – apart from retailing – the segment with the highest share of value added in the cocoa value chain. Côte d'Ivoire and Ghana should promote chocolate manufacturing for the local, regional and – potentially – African market. The potential for chocolate manufacturing in Africa has grown due to increasing consumption of chocolate products particularly in the context of urbanization processes, a rising middle class and the expansion of supermarkets (Tamru/Swinnen 2016).

The recent trend has been accompanied by grinders in Côte d'Ivoire (the French chocolatier Cémoi and the Ivorian grinder Tafissa) and Ghana (the Ghanaian grinder Niche Cocoa) functionally upgrading to chocolate manufacturing, and the development of a lively artisanal manufacturing sector. Most multinational grinders are however not expected to invest in chocolate manufacturing, since they do not see their core competencies in this activity.

Chocolate manufacturers should particularly focus on the local and regional ECOWAS-market and should grow in line with local and regional demand. The ECOWAS-market has the advantage of being protected by a 35% common external tariff (CET) for chocolate product imports (WTO 2017). The tariff has not been affected by the different interim or regional EPAs concluded with the EU over the last years (ECOWAS-EPA 2015; Ghana-iEPA 2016; Côte d'Ivoire-iEPA 2009). It is likely that the expansion of 'origin manufacturing' in the future will be driven both by multinational chocolate manufacturers, Ivorian and Ghanaian grinders and small artisanal manufacturers for niche markets. Côte d'Ivoire and Ghana as well as other West African countries with a grinding industry (such as Nigeria) are key competitors in the potential future development of a regional chocolate manufacturing hub. From the perspective of multinational firms, Côte d'Ivoire has an advantage over Ghana in developing chocolate manufacturing for regional exports due to lower electricity costs. Ghana, on the other hand, is particularly valued for its political stability.

Local chocolate manufacturers should also try to obtain market shares in other African markets, though such an endeavor will have to deal with international competition from multinational firms, which benefit from economies of scale and scope as well as well-established brands and marketing strategies. The EU (and companies manufacturing in the EU) will also gain a competitive advantage vis-à-vis Côte d'Ivoire and Ghana with respect to chocolate exports to African countries outside the ECOWAS region, in the context of the liberalization of chocolate products in various EPAs. Apart from the ECOWAS EPA, only a few other EPA tariff schedules (e.g. incl. for the EAC region, Madagascar and Zimbabwe) exclude chocolate products from tariff liberalization.

Hence, the key question in the development of chocolate manufacturing in Côte d'Ivoire and Ghana is the growth in local, regional and African consumption of chocolate products in a region where a culture of consuming cocoa products is lacking and non-tariff measures (e.g. infrastructural and bureaucratic obstacles) impede regional exports. In general, the promotion of chocolate consumption should target urban consumers with middle class lifestyles and increasing purchasing power, since cocoa products are luxury products in Africa. The promotion of consumption in Côte d'Ivoire and Ghana should be leveraged to support local chocolate manufacturers to learn and gain experience for regional exports. Marketing campaigns and public procurement programs could also support local consumption. The new Cocoa Strategy in Ghana, for example, will likely aim to include cocoa products in school cafeterias to introduce young Ghanaians to cocoa products.

Further, in order to promote cocoa product consumption in (West) Africa successfully, significant R&D will be necessary to develop products suitable for different regional tastes and the hot climate. Particularly Ivorian and Ghanaian chocolate manufacturers need to enhance their respective know-how in product development. Governments as well as development cooperation programs could therefore support R&D of local chocolate manufacturers. The increase in local and regional demand to support 'origin manufacturing' could be leveraged by increasing ECOWAS tariffs on chocolate products, e.g. by triggering infant industry clauses included in the WTO-rules and the EPAs in order to support local manufacturers and reduce imports particularly from the EU, in the case that chocolate product imports from the EU would increase despite the 35%-CET. Non-tariff measures in the ECOWAS region also need to be reduced in order to promote the growth of regional exports of chocolate products.

Industrial policy in Côte d'Ivoire and Ghana should furthermore incentivize local chocolate manufacturing. In Ghana, the currently reviewed new Cocoa Strategy could introduce a 2% discount on the main crop for local chocolate manufacturing. In Côte d'Ivoire, the export tax reform of 2017 introduced a discount on export taxes for companies that are willing to expand their capacities with a 0% export tax on ready-to-eat chocolate products. In addition, industrial policies should particularly promote functional upgrading of Ivorian and Ghanaian grinders. Functional upgrading should be promoted via subsidized credit lines and measures to support the transfer of know-how. Côte d'Ivoire and Ghana might also consider investing in education programs in order to be able to supply a skilled labor force necessary for chocolate manufacturing. Ghana also needs to invest further in its electricity infrastructure in order to reduce production costs in capital-intensive industries such as grinding and chocolate manufacturing.

3. *Follow a niche strategy for global chocolate exports*

Chocolate manufacturing in Côte d'Ivoire or Ghana for exports to global key consumption markets on a large scale is economically unviable. However, Ivorian and Ghanaian companies could develop niche strategies to participate in key consumption markets and other markets with similar climate conditions. The latter would include the exportation to markets with demand for more heat-resistant chocolate products. But it has to be taken into account that these markets also have become contested by multinational firms and/or are protected by tariffs (cf. van Huellen 2014).

The former strategy would be to market special branded products for high-priced markets. In order to be able to compete on the highly competitive and increasingly saturated market for high-priced and -quality niche products, the brands/products need to be original and differentiate themselves from other niche products. Examples of such brands or products include chocolate that is manufactured in Côte d'Ivoire or Ghana (e.g. by cooperatives) as well as branders and marketers owned by Ivorian or Ghanaian cooperatives, thus particularly benefiting farmers beyond fair producer prices (e.g. the company Divine Chocolate). In the latter case, the differentiation of the product goes beyond

traditional certification (UTZ, fair trade, rainforest alliance) and farmers also benefit from the value added in chocolate manufacturing.

Significant market research and marketing is necessary in order to being able to penetrate the increasingly saturated market of high-prices and high-quality niche markets. The marketing of chocolate products, where farmers participate in value creation of chocolate manufacturing, could be assisted by the creation of a new certification model. Development cooperation could assist in setting up joint ventures between farmers' cooperatives and investors in developing such brands and niche strategies benefiting farmers and their cooperatives.

4. *Support input sectors for grinding and chocolate manufacturing*

The export-oriented and FDI dominated grinding sectors in both countries had for many years an enclave-like character with limited employment and linkage creation, but the recent functional upgrading processes of grinders has furthered the growth of the chocolate manufacturing sectors. The grinding sectors have some backward (e.g. to the transporting and cardboard packaging industry) and forward linkages (esp. to chocolate manufacturing) to the local economy (see Grumiller 2018).

Chocolate manufacturing (incl. marketing and branding) has broader linkage potentials relative to grinding, but the linkage effects of the manufacturing sectors in Côte d'Ivoire and Ghana have been almost negligible due to the small scale of the sectors. Potentials for backward linkages exist to the milk (milk powder is generally imported), sugar (Côte d'Ivoire has sugar production) and more sophisticated packaging (which is generally imported from China) industries, also in order to reduce input prices. Forward linkage potentials exist with respect to design, branding, marketing and distribution. The potential to develop backward linkages to chocolate manufacturing, such as the creation of a milk industry, might however be curtailed by the recently ratified EPAs between the EU and Côte d'Ivoire as well as Ghana, which will further liberalize the importation of bulk milk powder from the EU, albeit from low levels.

5. *Continue support of cocoa production and strategies to raise producer and export prices*

In addition to the development of forward linkages to processing, it is also important to continue the policy focus on cocoa production and trade *per se* in order to ensure higher and sustained income for cocoa producers, particularly by promoting process and product upgrading. The regulation systems in both countries have generally benefited the livelihood of farmers. COCOBOD and CCC should continue to improve the livelihood of farmers via the promotion of productivity and quality as well as the diversification of income sources via education programs, the promotion of farmers' organizations, improvements in the efficiency and effectiveness of government institutions and improvements in the supply of inputs and access to credit in order to enhance the application of good agricultural practices and promote

the rehabilitation of farms to improve soil and tree quality. Social and environmental issues, such as child labor and deforestation processes, need to be addressed, when formulating policies targeting cocoa production. The promotion of certification should also play a role in this regard, but the problem of high costs relative to the limited recognition of different certificates has to be dealt with.

6. Foster regional cooperation to support processing and linkages

Expanding regional cooperation could be beneficial for Côte d'Ivoire and Ghana in the production, processing and marketing of cocoa beans. Cooperation between the two countries could include knowledge transfer on the governmental (e.g. research and development, policy experience, etc.) and private sector level (e.g. regarding product development, market analysis, etc.) and joint policies such as the promotion of local and regional demand for chocolate and cocoa confectionary products. A regional initiative (ACET 2014) to import beans from different origins could also benefit the grinding sector to mitigate the 'single origin challenge'. The further development of backward linkages such as in the packaging industry for the grinding or chocolate manufacturing sector or inputs such as fertilizers and pesticides for cocoa production would also benefit from regional cooperation.

Ideally, the cooperation between the two major producers Côte d'Ivoire and Ghana could be fostered in order to exert market power and reduce their dependency on international markets and prices for example via the regulation of cocoa production or buffer-stocks. A 'cocoa cartel' that tries to go beyond increased cooperation and coordination is likely to face various difficulties (see Grumiller et al. 2018b), in particular since cocoa is easier to substitute and produce relative to oil. There have been recent signs that the cooperation between Côte d'Ivoire and Ghana as well as industrial policy measures in the respective cocoa sectors are expanding in the context of the 'Abidjan declaration' and a USD 1.2 billion loan request from the African Development Bank (AfDB) in 2017. The loan could finance – amongst other things – the building of storage and warehousing facilities necessary for buffer stocks, the promotion of local and regional processing and consumption, with a particular focus on chocolate manufacturing and branding as well as the establishment of a stabilization fund and a cocoa exchange commission for the management of production (AfDB 2017).

Conclusion

This policy note argues that the scope for process and product upgrading in the cocoa sectors in Côte d'Ivoire and Ghana remain constrained by local sector conditions and global GVC dynamics. Existing opportunities should nevertheless be leveraged by strategic industrial policies. The growth of the grinding sectors is particularly hampered by high operational and investment costs, global overcapacities and the dominance of multinational firms who mainly seek to exploit tax- and price incentives in origin countries. The growth of

the chocolate manufacturing sector is mainly held back by the limited economic viability of manufacturing chocolate in Côte d'Ivoire and Ghana for the main overseas export markets. Opportunities thus reside mainly in the development of domestic regional consumption of chocolate products, given the emergence of an urban middle class in African countries. Given these framework conditions, industrial policies should go beyond the global export- and FDI-oriented tax- and price-incentive structure. In addition, locally embedded grinders and chocolate manufacturers need to be supported more directly in order to benefit from the opportunities in local and regional markets and related value chains

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- 1 The policy note builds on the findings of two comprehensive studies conducted by the Austrian Foundation for Development Research (ÖFSE) on the potential impact of the EPAs. Grumiller et al. (2018a) provide a comprehensive analysis of the EPAs with regard to the potential macro-economic effects as well as its implications on the Ghanaian cocoa as well as mango sectors. Grumiller et al. (2018b) present more comprehensive policy recommendations for a sustainable development strategy for the two respective sectors in Côte d'Ivoire and Ghana based on a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis. A more detailed discussion of the cocoa processing sectors is published in Grumiller 2018.
- 2 In Ghana, a reform of the Cocoa Sector Development Strategy in order to intensify support for local processors (e.g. a 2% discount on the main crop for chocolate manufacturers) and increase demand in the local market (e.g. school feeding programs) is currently discussed.

Disclaimer:

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