



# A short analytical history of cotton institutions in West Africa

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## Introduction

In the words of Poulton (2006): “Two main sets of factors shape the organization of commodity sectors at national level and that organization in turn influences performance. The two main sets of factors are commodity and market characteristics on the one hand and policy decisions (past and present) on the other.” This paper investigates that link from a historical and theoretical perspective and identifies the factors that shaped the organization of West and Central African cotton markets.<sup>2</sup>

This paper starts with a description of how cotton sectors in WCA initially came to be organized as ‘integrated supply-chains’ (*filières*, in French) or ‘single channel systems’.<sup>3</sup> This historical overview is indeed believed to be essential to clarify the different policy objectives that were assigned to cotton market institutions by different stakeholders and thus explain the divergences in their valuation and the

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<sup>2</sup> The terms ‘market structure’, ‘institutional arrangements’ or ‘sector organization’, sometimes also described as “governance structure” (Williamson, 1975), are used, indistinctly, to describe, in a very broad sense, both the nature and role of different players and the distribution of power between them as well as the modes of State regulation of the sector, the set of rules, legal instruments and policies, also referred to as ‘cotton policy’ (or ‘*politique cotonnière*’ in French).

<sup>3</sup> An ‘integrated *filière*’ can be defined as a vertically integrated market in which a State company (also known as “parastatal”) enjoys a monopsony and monopoly position to buy cotton from peasants, transform it and export it on the World market while offering inputs on credit, delivering extension services and conducting research. Often, the State also applies fixed pan-territorial and pan-seasonal prices and taxes or subsidizes several activities depending on World prices.

long-lasting debate around the identification of desirable reforms.<sup>4</sup> The first section thus provides a rapid historical review of how difficult and controversial the institutional building process has been since the very development of the sector by French colonizers at the beginning of the 20<sup>th</sup> century.

The following section then looks into more details to the second institutional debate that arose when international financial institutions (IFIs) – mainly the World Bank and the IMF – recommended the ‘normalization’ of those markets.<sup>5</sup> While this dispute over the appropriate market structure for cotton sectors has yielded an important literature, it is believed to be still unsolved both from a theoretical and from a policy perspective. The extensive literature on the governance of West African cotton sectors is mainly descriptive and, sometimes, suffers from being the produce of institutions or persons that are or were directly involved in the governance or advocating reforms. Valuable contributions have been made by empirical studies looking at reform processes in Eastern and Southern Africa (ESA), where reforms have been more rapidly and more thoroughly implemented. They often find mixed results at best. (Tschirley et al., 2009) Recent theoretical work has also very interestingly began to explain the failures of orthodox policies in certain types of markets, building on the New Institutional Economics (NIE) literature. Yet, while the need for reform has become more and more consensual, as well as has the unsuited nature of traditional orthodox solutions, no alternative proposition raises consensus.

Besides, to date, no formal framework has allowed an assessment of the costs and benefits of different market structures in this context.

## 1. A short history of WCA cotton institutions

### 1.1. First ‘cotton debate’ and birth of the integrated *filière*

*“In Africa, the history of why cotton is grown in which locales, by whom, in what quantity, and with which techniques involves international politics, colonial power, environmental factors, and, in many instances, coercion.”*  
(Moseley and Gray, 2008)

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<sup>4</sup> Besides, some of the recent literature tends to conceal what the primary vector of integration in cotton markets was – that is, the colonial exploitation of WCA lands and rural labour force. And, even when this factor is acknowledged, some of its implications, such as the fact that the significance of cotton production in WCA was constructed and derived from the exclusivity of services which were associated to the production of this crop, are often left out. This section therefore also serves as a reminder that the desirability of cotton production growth per se should not be taken for granted but be weighed against long run potentialities of the agricultural sector.

<sup>5</sup> ‘Normalization’ is used to describe a set of orthodox reforms: the disintegration of different subsectors such as inputs distribution or cotton transportation, the liberalization of these sub-sectors as well as of the ginning sector and the privatization of the public parastatals.

*“Partout, en tous temps, le coton/textile a été le fait de l’Etat.” (Fok, 1997)*

### **1.1.1 The unsuccessful colonial struggle for cotton: pre-WWII**

Considering as Barrett and Mutambatsere (2005) that “the history of agricultural markets in developing countries reflects attempts to establish the appropriate government responses to the inefficiencies created by incomplete institutional and physical infrastructure and imperfect competition”, this section can be viewed as a discussion of this larger issue, focusing on one sector, which is believed to be of particular interest as WCA cotton markets have been particularly strongly regulated by governments, and this, for a particularly long time.<sup>6</sup> It attempts to show how the high degree of vertical integration which has characterized WCA cotton sectors for almost half a century is attributable to the interaction of the specific policy objectives of the colonial Administration and to the socio-economic and agro-climatic characteristics of the region, which constrained these policy objectives.<sup>7</sup> Primary among these constraints were the low profitability of cotton growing and thus the reluctance of local farmers to produce it, the competition for supply exercised by a competitive local textile market, which captured a significant proportion of the output and the resistance of farmers to various forms of coercion.

The history of the cotton sector in each country of WCA is not covered individually, and specific events in the course of institutional building are not presented. Rather, this section identifies trends and patterns in policy that characterize the evolution of cotton sector institutions all over the region. This section builds extensively on work by Basset (2001), Levrat (2009a and 2009b), Roberts (1998) and Schwartz (1993) thus relies more particularly on the Malian, the Ivorian and Burkinabè history.<sup>8</sup> The reason for this geographical focus is simply due to a lack of similar in-depth studies for other countries. However, in the six major cotton producing countries of the region (Burkina Faso, Mali, Benin, the Ivory Coast, Chad and Cameroon), cotton was developed under the auspices of the French Administration and/or the French public company *Compagnie française pour le développement des*

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<sup>6</sup> According to Fok (2008), quoting (Maier, 1995), the government of the Kingdom of Dahomey already intervened in cotton cultivation: “Thus, not only Europeans but also precolonial African governments viewed cotton as a product meriting state attention, direction and control.”

<sup>7</sup> In this, this section illustrates the hypothesis that sector governance is influenced by commodity and market characteristics, as well as by policy choices. (North, 1990; Poulton, 2006) As views on the means that could be used to solve these constraints varied among colonial decision-makers and actors of the cotton sector, the birth of this sector organization and regulation model can be considered to be the result of a first long debate on cotton institutions.

<sup>8</sup> French Sudan refers to today’s Mali.

*fibres textiles* (CFDT) such that it seems reasonable to assume that the institutional building process was very similar everywhere.<sup>9</sup>

Cotton has been cultivated and woven in different regions of Africa for centuries.<sup>10</sup> Schwartz explains how, in the pre-colonial period, cotton was cultivated to produce cloth for the household, shroud for ritual purposes and woven strips that were traded, notably in exchange for salt from the Sahara and kola from the tropical forests. (Schwartz, 1993) Cotton was then cultivated as a secondary crop, with little labour input and very low yields. Its widespread promotion in WCA first emerged as an answer to the procurement problems of the French textile sector at the end of the 19<sup>th</sup> century. Colonial efforts were motivated by the high dependency of French companies on imports from the United States (US), which was increasingly perceived as a strategic danger by the French textile industry.<sup>11</sup> Fears of a ‘cotton famine’ first appeared in the 1860s, when the American civil war, commodity speculation and hoarding led to a cotton supply crisis.<sup>12</sup> Later, the combination of technical progress in the textile industry and its development in the US, several conflicts which impeded the delivery of American cotton, the development of new pests threatening production in the US (the boll-weevil), the abolition of slavery and the depreciation of the franc were all factors that contributed to the idea that world cotton supply might not be able to keep up with the growing demand of the industry (Roberts, 1998).<sup>13</sup> Combined with the speculative activity, all these factors also resulted in “wild swings” in the world price of cotton. (Farnie, 2004) Cotton development in French African colonies was also motivated by the colonial Administration’s search for financial autonomy, and later, by the will to promote local

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<sup>9</sup> Togo has also become a significant producer of cotton since the 1980s. This late development of the sector however differs from the processes that will be described in this chapter. It will be addressed in country reviews in Chapter 3.

<sup>10</sup> It has long been thought that Arabs introduced cotton in Africa from Asia around the 11<sup>th</sup> century. Today, however, botanists believe that cotton originated simultaneously from different parts of the World, among which Africa. Archaeologists have found evidence of cotton weaving in Nubia dating from the BC era and in today’s Niger dating from the 1<sup>st</sup> and 2<sup>nd</sup> centuries.

<sup>11</sup> According to Roberts (1996), by 1860, over 90 percent of the cotton consumed by the French textile industry came from the United States. In fact, the US produced about three quarter of World cotton and was responsible for about four fifths of World exports. (Levrat, 2009a)

<sup>12</sup> Fok (2008) reports words attributed to Napoléon III by Poulain (1863): “*la situation de l’Empire serait florissante, si la guerre d’Amérique n’était pas venue tarir une des sources les plus fécondes de notre industrie*” – The Empire would be thriving, if the American civil war had not dried up one of the most fertile sources of our [textile] industry.

<sup>13</sup> The cotton gin, which made the use of American cotton possible and profitable, was invented in 1793 and quickly diffused in European countries, despite attempts by the British government to ban its export. Throughout the 19<sup>th</sup> century, cotton became the main fibre used by the textile industry, being the easiest to use with mechanized weaving-machines. Besides, the textile industry expanded dramatically first in the United Kingdom and then in the rest of Europe, thanks to decreasing fret costs and the invention of Whitney’s mechanical gin and then of mechanical steam spinning and weaving machines.

development in its territories.<sup>14</sup> The French cotton policy thus emerged from the convergence of interests of the colonial Administration, of industrialists and of the Metropolitan government, as the textile industry was one of the major job providers in the Metropole.<sup>15</sup> (Fok, 1993) However, until the Second World War, cotton promotion was mainly supported by the private sector based in the Metropole and implemented by the colonial Administration with varying levels of support from the Metropolitan government.<sup>16</sup> Real involvement of the latter dates from the mid 1920s.<sup>17</sup>

The first French attempts to promote cotton production in WCA were made during the 19<sup>th</sup> century, mainly in Senegal and Niger Valleys (in the colonies of Senegal and the French Sudan), by trying to expand the cultivation of local varieties.<sup>18</sup> However, quality did not match Metropolitan needs and production costs were superior to that of importing from the US, so that, each time the production in the US recovered, these initiatives were abandoned. Trials were later extended to Dahomey, Upper Volta and the Ivory Coast at the beginning of the 20<sup>th</sup> century, this time by introducing varieties originating from the US or from Egypt.<sup>19</sup> With colonial penetration, cotton promotion was then extended to Central Africa, mainly Chad and Centrafrique, in the interwar period and later in Togo. According to Roberts (1998), Basset (2001) and Fok (1993), the French colonial Administration (as other Europeans) saw cotton development mainly as a technical challenge to transcend climatic and

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<sup>14</sup> With the end of slavery, the post-revolution Administration was trying to find alternative sources of revenues in the colonies, especially from the 1920s, when the Administration began to foresee a future inevitable decolonization. This was formalized in a report entitled “*Mise en valeur des colonies*” by Albert Sarraut (1921), then France’s minister for Colonies, which stipulated that French West Africa should specialize in the production of oil-bearing seeds. According to Roberts (1998), cotton promotion also aimed to “justify continued metropolitan support for colonies against a rising chorus of sceptics in France.” Stürzinger (1983) further relates the Administration’s motivation to an attempt at integrating the local population into a monetarized economy to extend the tax base.

<sup>15</sup> According to Fok (1993), at the end of the 19<sup>th</sup> century, about 250 000 workers were employed in the French textile industry.

<sup>16</sup> This support was very much linked to the evolution of the World price and remained short-termed: every time the World price plunged again, political attention drove away from the cotton sector, despite attempts by the private sector to implement longer term incentives.

<sup>17</sup> The ‘Carde Program’ aimed at intensifying varietal research (which led to the introduction of the Allen variety) and research on cultural practices as well as at promoting cotton adoption by farmers through the setting of buying facilities and the creation of extension services. All of these measures were jointly led and financed by the Administration and the representative body of the private textile sector.

<sup>18</sup> Actually, attempts to develop cotton production had already been led by the Portuguese and the British Administration in Senegal in the early 18<sup>th</sup> century, but with no success because of excessive costs of production. (Levrat, 2009b) One of the first French initiatives in WCA was the creation of an ‘experimental garden’ in the Senegal Valley (*Jardin Royal Richard-Toll*) in 1816. (Schwartz, 1993)

<sup>19</sup> Dahomey refers to today’s Benin and Upper Volta to today’s Burkina Faso.

biological obstacles and as such, looked for technical solutions.<sup>20</sup> However, they were to face many other obstacles.

During the first half of the 20<sup>th</sup> century, the French cotton policy was shaped by two major constraints impeding an easy development of cotton production in WCA. First, fostering production growth was not as easy as the Administration had imagined: the agro-climatic conditions in the region hampered the improvement of yields, and farmers were reluctant to cultivate cotton. Second, the local textile industry in WCA created serious competition in the purchase of raw cotton. Solutions to overcome these constraints ranged from the use of coercion to the creation of incentives and were influenced by the French government's varying commitment to free trade as well as by colonial administrators' different socio-political visions of African farmers (Roberts, 1998 and Bassett, 2001).<sup>21</sup> The global economic situation, or the situation of the American cotton sector, also impacted cotton policy.<sup>22</sup> Examples of coercion include the obligation to produce in monitored collective fields, known as the "Commander's fields" (Bassett, 2001) and the prohibition, for locals, to buy cotton and spin it. Schwartz (1993) describes how the Colonial Administration in Upper Volta used very harsh policies to introduce the compulsion to grow cotton between 1924 and 1929.<sup>23</sup> Examples of incentives include purchases by public authorities when private demand slowed down, the dissemination of new seed varieties adapted to local conditions and the dissemination of best practices.

However, because both coercion and incentives had limitations, they were never fully implemented and they co-existed, with a varying balance, over the whole pre-World War II colonial period. For example, over these decades of policy experimentation, for short periods of time, policy makers who

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<sup>20</sup> "French colonial cotton policy can be understood as a tool kit containing three compartments [labour, markets and quality controls]. From each compartment colonial administrators drew out versions of these core categories and combined them to 'fix' the linked problem of inducing a growing supply of good quality cotton to satisfy metropolitan demand and of fitting the changing notion of Africans and colonization." (Roberts, 1996)

<sup>21</sup> Among colonizers, some saw local farmers as rational economic agents, who would answer the right incentives and who would be more likely to produce cotton if they were allowed to do so under traditional rules and a progressive technological evolution. They considered the role of the colonial State to be bound to ensuring that markets operate freely and that prices remain attractive. This is what Roberts (1996) calls the "pro peasant model". Others, on the contrary, considered that locals would produce only under constraint because of their laziness and considered that the colonial State had to monitor farmers and exert pressure on them.

<sup>22</sup> During the depression which followed the 1929 crash, for example, afraid that importers would turn their back to cotton, the colonial Administration decided to intervene more significantly in the market to avoid disruptions. (Roberts, 1996)

<sup>23</sup> Quoting Henry (1988), Schwartz (1993) reports extracts of different letters circulating among the Colonial Administration at the time of Lieutenant-Governor Hesling (second half of the 1920s). The core message of these letters is that all means have to be used to pursue increased cotton cultivation, which they consider to be in the best interest of local populations. Cotton production had already been established as the obligatory means of paying taxes in Sudan at the end of the 18<sup>th</sup> century by Lieutenant-Governor de Trentinian,. Similar methods were used in the 1910s in Dahomey and in the Ivory Coast. Such policies created long-lasting negative perceptions of this crop.

favoured a light involvement of the State accepted to fix prices, to regulate marketing through the creation of ‘cotton fairs’ or to allow the creation of buyers’ consortia. According to Roberts (1998), at the end of the 1930s, “the colonial State had created a grotesque caricature of free markets.” Similarly, coercive policies encountered constraints. Forced labour, on which colonially-controlled irrigated projects heavily relied, was increasingly criticized and the mandatory enrolment of local labour force in public works (for example, the construction of road networks) also exerted competition with cotton growing. (Roberts, 1998) Bassett (2001) also notes how peasants played an important role in shaping market institutions by refusing imposed cultivation. Nowhere was cotton cultivated on the scale demanded. Peasants restrained their productivity by illegally mixing crops on their plots or ‘cheating’ on their obligatory work time in their fields as soon as Colonial Administrators would lessen overseeing. Resistance also led to massive exodus – for example from Upper Volta to the neighbouring Gold Coast, where the British Administration was being less severe and where emigrants could work in coffee and cocoa plantation – and to increasing illegal sales to the local textile sector. (Schwartz, 1993) The inter-regional textile market indeed continued to expand.<sup>24</sup> By 1917, the local textile market had tripled and in the 1920s and the 1930s, about a third of the cotton produced in West Africa was sold locally. (Basset, 2001) Roberts (1998) notes: “As the architects of colonial cotton development were to discover, the existence of a dynamic production sector to supply the domestic market for cotton and cotton textiles coupled with the high elasticity of demand for both imported and domestic cloth drove the allocation of the cotton harvest more fully than did colonial policies.” Besides, the interest of the different parties diverged. The Colonial Cotton Association (*Association Coloniale Cotonnière*, ACC), created in 1903, which was the main representative body of the Metropolitan private sector, was perceived as a relatively unsuccessful lobby by the Metropolitan government and as too protectionist by the colonial Administration.<sup>25</sup>

These hesitant cotton policies were relatively unsuccessful: at the end of the 1930s, WCA cotton represented less than 7 percent of total demand in France. Besides, unclear policies prevented the colonial Administration from imposing a quality level that was necessary to make local cotton attractive to French industrialists. (Levrat, 2009a) Fok (1993) characterizes the performance of the sector at the times as an “elliptic success”. Such mitigated results contributed to a first cotton debate: “In light of the failures, questions about the optimal production structure for the industry were raised,

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<sup>24</sup> At the beginning of the 20<sup>th</sup> century, many former slaves began to produce textiles on their own, notably because imported textile was of lower quality and its price regularly increased when imports were constrained, especially during the two World Wars. Besides, the increasing quality of local cotton enabled easier transformation. (Roberts, 1998)

<sup>25</sup> The role of the ACC never was made very clear. Since its creation, it oscillated between being a non-for-profit agency and a proper private lobby – or even a company. While sometimes it was confined to quality regulation and rule-setting, sometimes it assumed cotton marketing or ginning functions. ACC’s responsibilities were influenced by World market conditions and by politics, as was the cotton policy in general. (Robert, 1998)

and the relative merits of smallholder intercrop production and large monoculture operations were debated.” (Farnie, 2004) Quoting Henry (1988), Schwartz for example reproduces an extract of a 1931 report on the economic situation in Upper Volta, which underlines the need to move from the use of coercion to the use of incentives : “*Il est temps de modifier nos procédés d’administration si nous ne voulons pas nous exposer à ce que les moutons deviennent enragés et à ce que les réactions à venir prennent une forme moins pacifique que l’exode en territoire étranger*” – “It is time for us to change our policies if do not want the sheep to become enraged and future reactions to take less pacific forms than exodus to foreign territories.” Combined with structural changes in political orientations, this would lead to major changes in French cotton policy.

Cotton promotion was a bit more successful in Central Africa (*Afrique Equatoriale Française*, AEF) where the bases of the market institutions that would later lead to a cotton boom were implemented. Indeed, in AEF, the Administration copied what was being done in Belgian and German colonies and created local monopolies for private companies in exchange of services. As transport and climatic conditions were less favourable in AEF than in West Africa, the private sector was not very interested in the first place. The local Administration therefore had to attract investment by granting local monopolies. Many of these companies were based in the Belgian Congo, and became involved in cotton production in part because ivory and natural rubber were becoming scarce. Companies were responsible for the distribution of free seeds and for ginning as well as marketing in the Metropolis. Producer prices were fixed by the Administration so as to avoid monopoly pricing. In exchange, the Administration was responsible for ‘extension services’ and guaranteed minimal levels of production. However, until WWII, so-called extension was nothing more than coercion. This system allowed significant and continued investments in research and infrastructure. Combined with a continued use of coercion, production increased significantly for the first time. Besides, during WWII, cotton production promotion was part of war policies (*‘effort de guerre’*), and duties on cotton textile imports were raised as well as producer prices, leading to a first production boom.<sup>26</sup>

As a summary of this first phase of cotton policy, figure 1 depicts the context in which cotton promotion became a key policy of the French colonial Administration, the obstacles that prevented its easy development (light grey boxes), and the policy and the institutional answers of different stakeholders (dotted line boxes).

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<sup>26</sup> The Ministry for War absorbed over half of the total textile output and more cotton was still necessary for powder production.



## 1.1.2 From coercion to incentives

The post-war period is marked by two important evolutions. On the one hand, the French government took a new stance that favoured state intervention, which benefitted the cotton sector all the more that, by isolating France, the German occupation had made clear the strategic need for developing domestic cotton production. On the other hand, the 1946 Brazzaville declaration announced a shift in the colonial policy towards a greater concern for the welfare of colonial populations and an increase in the public budget allocated to development policies.<sup>27</sup> From then on, cotton policies were considered not only as indispensable to meet the needs of the French textile industry, but also as a means to “improve the standard of living of cotton growers and reduce income disparities between savannah and forest populations.” (Bassett, 2001) As a result, new institutions were created to regulate the cotton sector and to finance it with public funds. Basically, the concession model of AEF was implemented in West Africa, but the use of coercion was abandoned and incentives were created through public assistance.<sup>28</sup> Indeed, according to Campbell, “by the end of the 1950s it had become evident that the previous mode of colonial exploitation – namely extensive agriculture performed by forced labour under the supervision of the colonial Administration – was no longer capable of increasing returns.” The focus was thus on increasing productivity. The Research Institute in Cotton and Exotic Textiles (*Institut de recherche du coton et des textiles exotiques*, IRTC) was created in 1946, and it established three research centres in West Africa to develop new seed varieties. The French Company for the Development of Textile Fibres (CFDT) was created in 1949, under the original name of Textile Company of the French Union (*Compagnie des textiles de l’union française*, CTUF), which it kept for a year, as a joint-venture between the State and private textile companies. The role of the CFDT was to intensify cotton production by introducing the new varieties developed by the IRTC, disseminating associated techniques and ginning in areas where there was no private ginners. The CFDT was somehow the successor of the ACC.

Three key policies were then progressively implemented in all the countries of the region. First, a pan-territorial and pan-seasonal price was introduced, with the objective of offering producers an attractive price, especially in remote areas. This price was further accompanied by the guarantee of purchase of

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<sup>27</sup> This was also a consequence of the colonies’ participation to the war effort and their early rallying to De Gaulles’ *France libre*.

<sup>28</sup> The activities of these new institutions were financed by the *Fonds d’Investissement et de Développement Economique et Social d’Outre-mer* (FIDES) – created in 1946 to finance equipment, agricultural and research projects mainly in Sub-Saharan colonies and in Madagascar – and the *Fonds d’Equipeement Rural pour le Développement Economique et Social* (FERDES) – created in 1949 to finance small projects, at the village level, with the participation of local populations. The FIDES was replaced in 1954 by the *Fond d’Aide et de Coopération* (FAC). One should note that the existence of these subsidies complicates the assessment of the *integrated filière* institutional model, per se, as its building process took place at the same time as subsidies greatly increased.

all the seed cotton supplied. The price was set by the government before sowing, and remained constant throughout the season, such that price variability and risk were reduced for the farmer.<sup>29</sup> Different grades had different prices, creating incentives for quality production. This price fixing was also motivated by tax-raising purposes so that at times of high world prices, producers' shares were reduced and cotton provided a substantial share of government revenue. Second, the government pushed for significant investments in varietal research (to increase both yields and ginning outturn ratios) and in the promotion of better cultivation techniques. Finally, the use of inputs and mechanisation were generalized as the cotton ginneries began to distribute fertilizers, pesticides and tools on credit. This credit system was introduced in exchange for the progressive granting of a monopsony status in different regions to the CFDT. This granting of a monopsony status is hardly documented in the literature. Fok (2008) describes it as a 'natural' and very progressive evolution: "[The] credit procedure was the cornerstone of an integration system which set up gradually leading to the monopsony system which eventually prevailed."

The post-colonial period not only saw the continuation of the CFDT system but its further development: monopolies were instituted not only for ginning but for all cotton-related activities, that is, the degree of vertical integration increased as the CFDT, and later national parastatals, progressively assumed all the functions surrounding the cultivation of cotton (ginning but also inputs provision, extension, transport, oil-seed crushing); public funding continued to be directed to cotton policies (notably the subsidization of inputs) and price stabilization mechanisms continued to isolate producer prices from World price fluctuations while providing financial public resources.<sup>30</sup> Most national companies also signed technical assistance contracts with the CFDT, which retained shares in these companies, thus perpetuating its involvement in the management of the sector. As a result, cotton became what Schwartz (1993) calls "an institutionally privileged crop", whose "superiority over other crops [...] lies in the certitude of SOFITEX marketing the production." Several motivations can explain why cotton remained a priority for independent States as well as why State intervention continued, and why the *filière* model was even strengthened. Regarding the focus on cotton, the perception that it could act as a 'development-vector crop' surely continued to play a role. And, since the infrastructure existed, the choice was not whether to adopt and encourage cotton cultivation but whether to abandon it. Besides, the promotion and taxation of cotton cultivation was a convenient answer to the revenue imperative of the newly independent States to finance the development of their

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<sup>29</sup> This price was initially set relatively to the price of peanut, the main competing cash crop. (Bassett 2001).

<sup>30</sup> In some cases, the transfers resulting from producers' taxation were supposed to fuel stabilization funds (*caisses de stabilisation*) such that money would be available at times of low world prices, to subsidize the farmers. In this way, the cotton policies could be self-supporting. The problem was that by the time that the world prices plummeted, this money often turned out to be spent on other purposes. In such cases, the stabilization funds were not distinguishable from government revenue.

industrial sector.<sup>31</sup> (Bassett, 2001) In certain countries, this support actually implied a complete reversal of local leaders' positions. In Burkina Faso, for example, political leaders fighting for the independence of their countries successfully campaigned against cotton production until Upper Volta finally proclaimed its independence in 1960.<sup>32</sup>

Regarding the public nature of parastatals, Berg (1981) maintains that newly independent societies could not accept to see key commodity trade be completely dominated by foreigners, so that, "since nongovernmental alternatives were scarce, governments took control."<sup>33</sup> Besides, Kydd and Dorward (2003) note how "governments needed to take action, and to be seen to take action, to promote agricultural and rural development, as these sectors dominated national economies and employment"; how public sector management fitted well into the 'socialist' orientation of some of the newly independent states and how, for those in power, "it was also a convenient tool for extending personal, party and state power and patronage into rural communities." Fourth, regarding the role of the CFDT, many observers underline the fact that technical and high-level positions in the cotton sectors were held by French manpower. The continued involvement of the French firm (and through it, the French State) in an increasingly integrated sector was thus also a means of benefiting from their knowledge and know-how. Actually, according to Campbell (1957), the independent States were even more responsive to the lobbying efforts of the CFDT than the French State had been, and this, because of the dependency of these States on the funds collected through cotton taxation.<sup>34</sup> Finally, Kydd and Dorward (2003) also identify a number of reasons why public involvement might have simply been necessary : "it could provide a coordination mechanism across trading, infrastructural, research and extension investments and activities; it could access official finance sources; it could coordinate with farmers; it could both reduce and take on systemic investment risks in ways that the private sector could not; and it could invest in the organizational and human resource development necessary to

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<sup>31</sup> Such policies were directly or indirectly supported by several economists, among which Lewis (1954) and Hirschmann (1958) or Prebisch (1949) and Singer (1950).

<sup>32</sup> In this country, the link between cotton cultivation and history has been extremely significant. The failure to promote cotton cultivation has been, for example, one of the main reasons for the disappearing of Upper Volta between 1932 and 1947. Indeed, as it appeared to be economically unviable, the French government decided to split its territory between the Niger, the Sudan and the Ivory Coast. (Schwartz, 1993)

<sup>33</sup> This is true not only regarding the continuation of the colonial investment in the sector after independence but also of possible investments by ethnic minorities. According to Knudsen et al. (1990), a major reason for the continued existence of parastatals in independent African countries was that governments wanted "to discriminate against certain ethnic groups that were active in trading."

<sup>34</sup> As a result, he believes "the creation of the newly formed state in no way altered the monopolistic organisation of production and distribution." On the contrary, "the creation of an Ivorian marketing board and the new states' mediation between peasant producers and the French companies helped to smooth over the contradictions created by this organisation of production. [...] The role of the newly created state was to: legitimise the organisation of production under its existing monopolistic metropolitan control; to give it ideological support and monetary assistance; and to stabilize productive activity, ensuring its continuation and lessening its growing contradictions." Campbell (1975)

develop working systems.” It is not obvious that all these motivations were as clearly established at the times, and it is hard, from the literature, to judge their relative significance to policy choices. However, some of them are key in justifying such policies from an economic point of view.

## 1.2. State intervention in turmoil: a second policy debate

### *Orthodox criticism*

For several decades, State-controlled institutions regulating cotton markets in WCA were perceived as relatively efficient, even by proponents of “standard”, or “orthodox”, market institutions.<sup>35</sup> Pesticide and fertilizer consumption as well as the use of animal traction increased dramatically, resulting in both yield and area expansion (see figure 2). Between 1970 and 1988, yields grew at 6.1 percent per annum, compared to the 1.9 percent worldwide. (Baffes, 2007) As a result, production growth was spectacular with little exception: total production more than doubled in Burkina Faso and the Ivory Coast and almost doubled in Mali over the 1970s. Almost everybody agreed on the key role of cotton production in the rural development of WCA.<sup>36</sup> The donor community funded several projects in the cotton regions of WCA, which always paid special attention to cotton, at least indirectly. (Schwartz, 1993)

The parastatals however came under attack, beginning in the 1980s. Initially, the criticisms stemmed from the extension of concerns regarding African agricultural sectors in general, which emerged when they began to suffer the consequences of the 1970s oil crisis which resulted in significant debt in many developing countries in the 1980s.<sup>37</sup> The Berg report (1981) attributes some of the problems observed – low production growth and declining market shares – to “‘structural’ factors that evolved from historical circumstances or from the physical environment” such as “underdeveloped human resources, the economic disruption that accompanied colonization and postcolonial consolidation, climatic and

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<sup>35</sup> The Berg report, considered to be the reference paper for World Bank adjustment programs in developing countries’ agricultural markets, notes that “some of the smallholder cotton growing schemes in francophone African countries are organized by agencies with mixed private-public ownership and are among the more successful ventures on the continent.” (World Bank, 1981) Several later World Bank papers recognize WCA cotton sectors’ market structure as the key to its success (e.g. Lele et al., 1989; Eisa et al. 1994; Ghillam et al. 1995). In fact, in the later two papers, appraisals of the results reached in WCA co-exist with reform recommendations, with no real articulation of these two contradictory statements. More recently, despite promoting orthodox reforms, Baffes (2007) recognizes the initially positive role of filière arrangements: “Apart from suitable agro-climatic conditions, the increase in cotton production reflected the vertically-integrated structure of the sector.”

<sup>36</sup> Badiane et al. (2002), for example, note: “Cotton production has improved rural welfare and contributed to economic growth in the CFA franc Zone countries of West and Central Africa (WCA). Cotton cultivation employs more than two million rural households and hence is a key factor for poverty reduction.”

<sup>37</sup> The Berg report (1981) describes these difficult times: a growth rate of agricultural production that was smaller than the rate of population growth in the 1970s, a sharp decrease in export crop production in the 1970s, compared to the 1960s, and a consequent drop in Africa’s world market share.

geographical factors hostile to development, and rapidly growing population,” as well as to external factors, among which the stagflation in industrialized economies, high energy prices and the slow growth of demand for primary products. However, Berg believes that the effect of these external and structural problems “have been exacerbated by domestic policy inadequacies.” Low agricultural productivity and production growth were attributed to the overextension of public sectors and its deficient management, excessive taxation of the agricultural sector and adverse macroeconomic policies.<sup>38</sup> (e.g. Bates, 1989; Berg, 1981; Commander, 1989; Eicher, 1982; Knudsen et al., 1990; Krueger, et al., 1988; Lipton, 1977; Timmer, 1986). According to Krueger et al. (1988), adverse macroeconomic policies resulted in indirect taxation of a greater magnitude than the taxation that was directly created by agricultural policies. While there was no observation of performance problems in the cotton sector, the fear was that the evolution of World demand and prices, with increasing volatility, might endanger the future sustainability of the sector. (Baffes, 2007) Academic work also questioned the desirability of price stabilization (e.g. Friedman, 1954 or, from an empirical perspective, Townsend, 1999) and criticized the pro-urban bias in food crop policies (e.g. Johnston and Mellor, 1961 or Bates, 1989). Successful State withdrawal from agricultural markets in China and Chile, the collapse of the Soviet Union, and the failure of international commodities price schemes also prompted IFIs to recommend market-orientated reforms. (Meerman, 1997; Akiyama et al., 2003)

In the late 1980s and early 1990s, the observation of stagnating, or even declining, yields – compared to increasing yields worldwide, and a very significant yield improvement in the first decades of existence of the ‘*integrated filières*’ – added to the concerns over the performance of the sector. Besides, with the devaluation of CFAf in 1994, farmers’ price shares tended to decrease further and cost efficiency and productivity enhancement efforts declined. (Poulton, 2006) While significant profit was made following the devaluation, poor management and misuse of public funds quickly resulted in financial difficulties. Worse records were probably found in Mali. Tefft (2003) for example notes: “in Mali and elsewhere in the region, the state-owned ginning companies have served as an auxiliary treasury for the government, or as the capstone of a political patronage system in the cotton-growing zone that could reward with jobs or punish through the downgrading of purchased cotton. Audits of the CMDT in the late 1990s revealed ‘gross mismanagement, fraud and embezzlement.’”. Baghdadli et al. (2007) similarly report how “the CMDT was in no position to manage the downturn in international prices in 1997-98, primarily because of poor management decisions. The stabilization

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<sup>38</sup> Berg (1981) identifies several sources of inefficiency that are common to all African parastatals: management problems (overmanning, inadequate non salary budgets, management scarcities, conflicting objectives, reduced individual initiative because of government-like pay scales, hiring and promotion procedures and lack of control), and the lack of competition. Berg believes these problems to be particularly important for export crops, relative to food crops, because, as there is no consumer pressure in WCA countries, there is no incentive to reduce costs.

fund, [...], turned out to be empty when prices declined resulting in a heavy financial loss of CFAF 56 billion (\$ 100 million), prompting a new bailout of the CMDT.”<sup>39</sup> Such observations contributed to the idea that public intervention was to be constrained as much as possible in countries that were characterized as ‘neopatrimonial’.<sup>40</sup> The general view that, instead of benefiting small-scale producers, widespread state intervention in agricultural markets distorted incentives, created inefficiencies and rent-seeking and prevented productivity and production growth, thus began to be seen to apply to cotton too. Producer prices (often expressed in shares of the World price) were considered to be ‘wrong’ (i) because fixed prices taxed farmers, isolated producers from World markets and biased incentives to the detriment of the most efficient farmers (as they were pan-territorial and pan-seasonal) and (ii) because the inefficiency of ginning companies translated into high transformation costs and lowered the benefits to be shared with producers. (Badiane et al., 2002)

Besides, during almost all the post-independence period, the World cotton price plummeted while the price of imported fertilizers increased, ultimately resulting in serious financial difficulties for State parastatals.<sup>41</sup> See figure 3 and 4. In the late 1980s and early 1990s (before the 1994 devaluation), concerns consequently shifted from excessive taxation to excessive support – worries which became even more serious starting again in 2000, with the appreciation of the CFAf against the US dollar and the strengthening of farmers’ organisations (FOs), which led, among other factors, to the granting of unsustainably high producer prices.<sup>42</sup>

Baffes (2007) explicitly attempts to calculate the rate of taxation/subsidization of cotton sectors in WCA over the period 1970-2005. He distinguishes four periods (with similar characteristics in all

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<sup>39</sup> Other countries performed better but all faced difficulties at some point : even Sofitex, considered to be the best performer, did face difficulties with its stabilization fund, which was used to finance inputs’ purchases or cover the losses resulting from too high producer prices, instead of being used for its initial purpose, that is, smooth over inter-seasonal volatility. (Baghdadli et al., 2007)

<sup>40</sup> In his review of the literature on “‘Neopatrimonialism’ and Agricultural Development in Africa”, De Grassi (2008) defines a neopatrimonial State as “a hybrid regime consisting of, on the one hand, an exterior modern, formal, rational-legal statelike apparatus (the “neo”) and, on the other hand, a patrimonial spoils network in which centralized elites mobilize political support by using their public position to distribute jobs, rent-seeking opportunities and resources as personal favors.”

<sup>41</sup> According to Baghdadli et al. (2007), between 1960-64 and 1999-2003, real cotton prices declined by 55 percent. Among the reasons that caused a downward trend in cotton price were the fact that average Worldwide production costs fell following technology improvements (increased fertilizer use, irrigation, GM seed introduction), the emergence of new producers such as Uzbekistan, the fact that China became a net fibre exporter, and the increasing market share taken by synthetic fibre causing cotton demand to increase more slowly than supply (Kherallah 2002; Bourdet, 2004 and Baghdadli et al., 2007). OECD countries subsidies, even if debated in terms of its magnitude, are also widely recognized to have depressed World prices. (Shepherd and Delpuech, 2007) Finally, cotton being traded in dollars, countries of WCA were also affected by the euro-dollar exchange rate. While sometimes, the exchange rate has contributed to attenuate World price decrease, since 2002, it has prevented WCA exporters to benefit from a World price increase because of the euro’s appreciation. (Baghdadli et al., 2007)

<sup>42</sup> The strengthening of FOs will be discussed in the following chapter.

countries of the region). According to him, cotton sectors were heavily taxed between 1970 and 1984 (at an average rate of 43 percent) and during the four years following the 1994 devaluation (at an average rate of 37 percent).<sup>43</sup> Cotton companies then faced constant financial difficulties and received budget support between 1985 and 1993 and since 1998, as the World price was low and the CFAf overvalued (producers being subsidized at an average rate of 6 and 9 percent during these two periods, respectively). Figure 5 gives a graphical illustration of the distortions to cotton prices in each of the major producing countries of the region, based on this data.

The criticism of vertical integration and public intervention was also accompanied by policy orthodoxy, that is, the idea that cotton policy should stick to its primary objective – ensuring the sustainability and the efficiency of the sector – poverty-reduction and rural development objectives needing other policy tools.<sup>44</sup> The financial concern thus did not only relate to pricing policies but also to the subsidization of inputs, transport or extension services and research. Subsidies were seen to crowd out the private delivery of these goods and services and to encourage corruption or rent-seeking in the parastatals. Besides, such subsidies were believed to create political pressure, which would make their interruption very difficult once their objectives would be met (in terms of inputs accessibility for example). Cost control, in turn, appeared as unmanageable. Finally, while such subsidies were motivated by rural development purposes, it was argued that targeting the farmers that most needed them would prove very difficult (because of their extreme cash constraints). (Dorward et al., 2008) This cost to the government budget, in fact, probably has been the main drivers of reform demands.<sup>45</sup> The emphasis in fact shifted from supposedly low producers' price share, at times of good performance to the excessively high cost of the cotton policy, at times of financial difficulties. The underlying criticism however did not change: state intervention was considered to create costly price distortions, whether in favour of producers or at their expense.<sup>46</sup> Figure 6 summarizes the rationale underlying orthodox reform recommendations.

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<sup>43</sup> Poulton (2007) similarly notes how, in the early 1980s, producer prices in Mali were “almost inexcusably low at around 30 percent” [of the f.o.b. lint price].

<sup>44</sup> According to Bagdhadli et al. (2007), the pan-territorial pricing mechanism plays “the role of a poorly designed and executed poverty reduction strategy.”

<sup>45</sup> According to Baffes (2007), times of insistent reform requests have coincided with times of financial crisis for cotton companies, that is, times of State subsidization.

<sup>46</sup> A paper by Badiane et al. (2002), which “present[s] the point of view of the IMF and the World Bank with respect to the main global and domestic policy issues surrounding the cotton sector” well summarizes this view: “The lack of transparency under these managed monopoly systems creates a multitude of opportunities for rent seeking and the mismanagement of resources, generally at the cost of farmers, the national budget, and the economy as a whole. [...] Essentially, the viability of national sectors under the current system is based on their ability to (a) tax producers and accumulate profits in times of high export prices, and (b) rely on budgetary support from national governments in times of low international prices.”

In the wake of structural adjustment policies (SAPs), reforms revolving around privatization, liberalization, deregulation of the sector (including all sub-sectors) and the end of pricing policies were advocated, with the objectives of strengthening the competitiveness of these sectors at the farm and firm levels, ensuring their long-term financial sustainability and allowing a fair sharing of the profits between producers and ginners.<sup>47</sup> (BATES, 1989) Baffes (2007) notes how orthodox recommendations have changed over time. Up to the early 1990s, recommendations consisted only in encouraging a restructuring of parastatals to promote efficiency without challenging their ownership structure.<sup>48</sup> Lele and Christiansen (1989) explain this initial ‘tolerance’ towards parastatals by the fact that support projects dealing with them were easy to design and appraise and the fact that management problems were initially believed to be remediable through investment or technical assistance. In the late 1990s, on the contrary, complete privatization and liberalization were recommended.

A distinction has to be made, however, between ESA and WCA. While policy recommendations have been similar in their content, they have been prompter and more insistent in ESA. Indeed, public regulation in ESA did lead to more obvious problems than in WCA: production in some countries clearly fell in the early post-colonial period and delays in payment to farmers were more pronounced. In WCA, up to the late 1990s, production growth did not slow down.<sup>49</sup> Besides, it was recognized that cotton in WCA had played a specific role with governments intervening in the sector with the objective of using the cotton policy as an engine of rural development focusing on smallholders (Meerman, 1997), while, “cotton cultivation in ESA typically had its origins in commercial or missionary activity.”<sup>50</sup> (Tschirley et al., 2009) In WCA, more than in ESA, there was an idea that,

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<sup>47</sup> SAPs more generally aimed at restoring or preserving economic development by promoting stabilization and balance of payment adjustments. These programs were accompanied with loans, the disbursement of which was conditional on their adoption. Structural adjustment loans (SALs) were launched as a new World Bank instrument in February 1980. According to Easterly (2005), between 1980 and 1999, 117 countries received at least one SAL, with “extreme cases”: 26 loans were granted to Côte d’Ivoire and Ghana. SAPs comprised both macroeconomic measures and sectoral reform programs. The literature assessing SAPs in DCs, and in particular in Africa, is extremely rich and covers both purely economic aspects of the reform appropriateness and more governance-linked issues such as the way these programs were more or less imposed to governments. See, for example, the review by Ahmed and Lipton (1997).

<sup>48</sup> Akiyama et al. (2003) similarly note how up to the mid 1990s, structural adjustment loans and programs often focused on improving the efficiency of parastatals. For a review of early World Bank policies, see Meerman (1997).

<sup>49</sup> In a paper entitled “Cotton in Africa: An Analysis of Differences in Performance,” Jayne et al. (1989) conclude: “By and large, cotton production in the francophone countries has been superior to that of anglophone countries (except Zimbabwe) since the early 1970s, even if many of the latter excelled earlier.”

<sup>50</sup> The description of typical African agricultural policies in the 1970s, on which reform claims were built, does not seem to reflect the nature of cotton policies in WCA: “Policymakers [...] equated economic development with industrialization, relegating agriculture to the role of supplier of labor, raw material, and cheap food to industry. Small-scale agriculture was seen as inherently inefficient because uneducated farmers were unable or unwilling to apply modern techniques such as mechanization.” (Kherallah et al., 2000) This is in sharp contrast with cotton the policies described in the previous section, which, on the contrary, promoted the adoption of modern cropping techniques.



despite taxation, key investments for rural development were being done by governments or the parastatals – in terms of infrastructure and research most notably. (Townsend, 1999) Comparing the performance of cotton sectors in Tanzania and in Mali, Gillham et al. (1995) note “a great contrast between the impact of government policy and parastatals.” They believe that “Tanzania is reflective of other East African countries where there was poor training of cotton professionals, inefficient Administration and an absence of any integration of research, extension, production and marketing.” They further add: “Both research and extension have suffered from lack of funding and the seed multiplication program has collapsed.” By contrast, they believe “good leadership and management and integration of adaptive research, extension and production in Mali ensured that supplies of pure, quality seed were available to the farmers and that, new developments in varieties and production technology reached them rapidly.” Besides, private markets for inputs and credit were believed to be more developed in ESA. (Akiyama et al., 2003) What is more, and probably, essential, there was less agreement among donors about the desirability of reforms. (Meerman, 1997) “Cotton cultivation in Burkina Faso – a 30 year success story,” a paper published in 2004 by the World Bank, but prepared by the French development finance institution (AFD, *Agence Française de Développement*), attests of the support of this major donor to historical market institutions, only by looking at the titles of some of its sections: “The current organisation is very effective”; “Impressive growth”; “Excellent financial results”; “A development driver for other economic sectors” and “Development that benefits producers.”

### *Resistance*

Normalization requests by IFIs thus sparked off a political and theoretical debate on whether the traditional institutional arrangements needed to be reformed. Resistance to pressures was uncommonly fierce and successful in WCA, and nowhere has the historical system completely disappeared. This resistance came from national Administrations and parastatals, but also from NGOs and from the AFD, as just mentioned, as well as from the CFDT (which later became Dagrif).<sup>51</sup> In recent years, as producer associations gained voice and power, their opposition to orthodox reforms has become increasingly meaningful in the debate.<sup>52</sup> On the one hand, may reflect the true belief that reform would not be beneficial to farmers, for some of the reasons which initially motivated the creation of

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<sup>51</sup> For example, in 1994, a conference was organized in Abidjan by the CFDT and local parastatals entitled “filières cotonnières d’Afrique francophone: les risques d’un démantèlement.” In 1995, representatives of these institutions went to Washington to expose their opposition to the proposed reforms and the specificity of WCA cotton sectors. The CFDT was compared to the “cotton ELF” and accused of neo-colonialism.

<sup>52</sup> We will go back to this in more details in the following section, when examining producers’ bargaining power in contract negotiation.

integrated *filières* and their conservation by independent States. On the other hand, it may reflect the unwillingness of certain stakeholders involved in processing to give up the rents or the political clout that the cotton policy created. In an intuitionist perspective, resistance can also be explained as the result of different forms of “path dependency”.

First, the policy objectives pursued by many stakeholders in WCA were broader than what political orthodoxy allowed so that, often, different parties were speaking at cross purposes. Tschirley et al. (2009) note how, “in the Francophone Africa debate, sector stakeholders have typically focused on the need to maintain input credit and extension systems, while donors have tended to focus more on issues of cost efficiency and long-term sustainability, and neither side has fully come to terms with the logic and evidence behind the other’s viewpoint.” Fok and Tazi (2003) thus argue that the performance diagnostic which motivated reform recommendations was too restrictive (in terms of prices only) and failed to capture some of the benefits of non-competitive market structure, in as much as they have allowed to lift many of farmers’ constraints and concerns, among which, primarily, access to credit, inputs and information or risk aversion. (e. g. Govereh et al., 1999) For example, according to a 1998 FAPRI survey in Benin quoted by Minot and Daniels (2002), 97 percent of all cotton growers in Benin used fertilizer, which they purchased on credit through the cotton parastatal while only 24 percent of other farmers used fertilizer. And there was a strong belief that credit-schemes and the promotion of intensive cropping practices would not be feasible outside of a single-channel relationship and without the support of the State.<sup>53</sup> Lele et al. (1989), believed WCA cotton markets performed better than cotton markets in ESA (except for Zimbabwe)<sup>54</sup> and their explanation of this difference pertained to market structure: “The presence of the CFDT has provided [WCA countries] with more effective vertical integration than is found in Anglophone Africa,” the significant element being CFDT’s “professional *approach*” rather than its presence, per se – although this is difficult to measure.<sup>55</sup> Similarly, ginning companies and States in WCA would justify the low price shares received by farmers with the subsidized provision of fertilizers and other inputs. Such subsidies were aimed to reduce farmers’ cash constraints, to counter their risk-aversion and their expectations of low returns on investments in various inputs; which resulted both from misinformation on the benefits of

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<sup>53</sup> This will be formally questioned in the following section. The fact that inputs are necessary to produce cotton in WCA, in contrast to the situation in ESA where mediocre yields can be achieved without any fertilizers or pesticides, might also explain the strength of the resistance to reforms, in this respect.

<sup>54</sup> “Output in the former French colonies grew by 740 percent between 1960 1985, while the other African producers collectively increased production by only about 60 percent in that time, primarily because seed cotton yields are substantially the higher in Francophone than in Anglophone Africa as a result of the higher level of technology used.” (Lele et al., 1989)

<sup>55</sup> By “professional approach”, they mean, first and foremost, integration, but also know-how, knowledge of local circumstances and of the world market functioning, financial tools and an efficient regional organization of research.

such inputs and from lack of knowledge on their use. Such subsidies were also motivated by rural development concerns and the objective to thicken very small markets. (Dorward et al., 2008)

Behind these stated objectives, more restricted interests – rent-seeking types of motives – might also have been at stake. As noted by Serra et al. (2009), “economic reforms typically imply some degree of privatization and liberalization that profoundly unsettle the power status quo and are therefore strongly resisted, in more or less open ways.” The CFDT, parastatals, and their respective shareholders, as well as governments, and individuals in these instances, at times clearly benefitted of the status quo. For example, Docking (2004) reports how the CFDT asked support from African Heads-of-state to fight its own privatization in France and later opposed strongly the privatization of “its two principal remaining West African interests: Cotontchad [the Chadian parastatal] and its most profitable parastatal, the CMDT [the Malian parastatal – *Compagnie Malienne pour le Développement des Textiles*]. Besides, resistance could also have stemmed from fears that parastatals would be taken over by foreigners, although this was seldom motivated clearly. Recognizing that games of power can result in institutional blockades, which create path dependency, helps understand resistance. The influence of external actors certainly also played a role, and depended on various power issues. For example, according to Levrat (2009b), States were all the more reluctant to reform that they were less dependent on IMF funding. The role of various NGOs, as well as international donors, who supported technically and financially farmers organizations since their very creation, certainly also played a role, that remains unclear in the literature.<sup>56</sup> For example, Docking (2004) reports the ambiguous role of the French government, through different bodies, which both supported liberal producer movements and their claims for increased decision power in sector management, and attempts to control such organizations to limit the extent of reforms.

However, such path dependency might also be the result of a more diffuse difficulty to accept changes, even among farmers. The idea that “mental models” change very slowly also can explain why institutional changes are resisted so much. Schwartz (1993) notes: “cotton is still not a ‘neutral’ product. Its emotional content is still heavily loaded, and producers’ reaction to anything about it highly subjective.” As put by Serra et al. (2009), “the challenge in the context of these reforms is therefore [...] also to navigate through different, and sometimes opposing, notions of how a cotton sector should be restructured.”

Besides, the reform process itself influenced its own outcome: As a result of the fact that reforms were considered later in WCA than in ESA, for example, “a common perception [developed] among policy makers and many stakeholders that the experiences of reforms elsewhere, especially in ESA, have

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<sup>56</sup> The role of NGOs in the development and the affirmation of producer organizations will be discussed in more details in the last section of this chapter.

resulted in unsatisfactory outcomes and/or patterns of near-term disruption.” (Tschirley et al., 2009) Similarly, privatizations have probably been all the more resisted that they have been perceived, “especially in Mali, as an unnecessary measure imposed by donors.” (Serra et al., 2009)

In summary, in the words of Tschirley et al., (2009) reforms might have been less feasible in WCA than in ESA because “a country’s history, current sector type, and political imperatives also have a significant influence on the feasible path of institutional change over time.”

However, this is not to say that opponents to orthodox reform proposals believed that the ‘*integrated filière*’ did perform perfectly.<sup>57</sup> On the contrary, ‘death by success’ would summarize a view commonly shared. Tschirley et al. (2009), for example, believe that “the WCA cotton sector organizational model, long regarded as a successful model, became a victim of its own success during the last two decade.” As the size of cotton markets expanded, management became more complex (e.g. Leibenstein, 1966), and, as the private sector developed, the opportunity cost for public management increased. The growth of the sector also meant increasing economic dependence and therefore increasing political power in the hands of both producers and ginning companies and, in turn, increasing state involvement in the management of the parastatals. Besides, the CFAf devaluation, by generating important revenues for the parastatals, resulted in lax management and higher cost structures. FOs, themselves, did ask for changes in sector management with regards to producer price shares and to the management of stabilization funds by politicians. However, such protests never entailed an orthodox institutional solution. Rather, the main answer envisaged to solving these problems was the reinforcement of FOs.

Besides, several governments eventually implemented reforms – at least partial – simply because they needed financial assistance from IFIs and had to accept their terms. (Kherallah et al., 2000) Starting in the mid 1980s, most countries adopted what was called “performance contracts”, which were to define more precisely the roles of the different stakeholders and make parastatals more accountable. However, in practice, these contracts had very limited impacts, in the absence of strong regulation to monitor companies. The “performance contract” system was in fact seldom regarded as reform. Facing more insistent push for structural changes, some countries have considered introducing a limited degree of competition and privatization through the division of the parastatals into smaller companies,

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<sup>57</sup> Gibbon (1999) for example sums up this dual view by underlining the existence, in East Africa, of “a direct relationship between degree of success in agricultural intensification and degree of financial *unviability*” while explaining that promoting free competition cannot either be an answer to “a wide range of problems including intensification [...] since the naturalistic assumptions about markets and their properties which this prioritisation is founded upon are simultaneously implicitly abandoned in admissions that competition neither emerges spontaneously, nor has the capacity to deliver certain goods to certain actors.”

to whom local monopsonies are granted, and revising their pricing systems to introduce links to international prices.

Actually, IFIs' positions have also become more nuanced with time.<sup>58</sup> In a World Bank publication, Bagdhadli et al. (2007) are very cautious about orthodox reform recommendations. They note: "Lessons learned in the 1990s suggest that transferring public property to private enterprises is not enough, by itself, to put the sector back to a sustainable path." They also acknowledge that "in WCA, the private sector does not have the capacity to provide quality services in a timely fashion in either transport or input distribution." While rejecting the desirability of maintaining parastatals, they further suggest that economies of scale may justify a limitation of competition in the ginning market, that economies of scope might justify uniting different sub-markets such as ginning and oil crushing or cotton transport and input distribution and that hold-up risks may justify interlocking transactions. Tschirley et al. (2009), a World Bank publication, also conclude that "local monopolies and concentrated systems may offer better prospects for the future."<sup>59</sup> The following section reviews the literature that provided material for such changes of views.

## 2. Cotton market structure and performance: A state of the art on the art of the State

### 2.1. Empirical findings on orthodox reform experiences

The objective of this section is to examine the empirical evidence which has been or could be used to support the reform recommendations addressed to WCA countries, as well as the resistance in WCA. This section reviews empirical evaluations of 'truly orthodox' reforms – or at least, reforms that were intended to be so or which were presented as such – as well as comparisons of liberalized and integrated sectors' respective performance. What follows thus focuses on reform processes in ESA as no country in WCA did implement comprehensive orthodox reforms. Of course, there are differences between these two regions, and even across countries of these regions, that would imply different reform outcomes. However, the effects of reform observed in ESA are believed to be a useful benchmark of the possible reform outcomes in WCA. A few empirical estimations of reform outcomes

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<sup>58</sup> According to Levrat (2009b), the peak of the 'dispute' would have come with the publication of the Pursell and Diop paper in 1997/98. Producer prices in WCA were compared to those in India or Zimbabwe where production conditions are very different. However, as from the late 1990s, the World Bank position took distances with that paper and became more nuanced. On the other hand, later PDGs of the CFDT, which became Dagrís before being privatized (and becoming Geocoton), adopted more open views too and accepted the idea that some changes were needed."

<sup>59</sup> However, they still believe that "the politics of improving performance under [national] monopolies is complicated enough, that most of them need to move toward a different sectoral structure." (Tschirley et al., 2009)

in WCA exist, but they did not really contribute to the policy debate, being only very recent. Besides, having been ‘incomplete’, ‘reversed’ and sometimes ‘heterodox’, the outcomes of such reforms can hardly be considered to illustrate the implications of orthodox prescriptions.<sup>60</sup>

Empirical studies looking at cotton markets are numerous and come to diverging conclusions, especially with respect to different countries of the region. Generally-speaking, however, they often find mixed results.<sup>61</sup> The recent study by Tschirley et al. (2009) is of particular interest as it reviews the experiences of all the major SSA cotton-producing countries, with more hindsight than earlier studies. Besides, it was written by researchers with diverging views on the subject, such that it can be considered a very good summary of the existing literature. The paper builds on a typology of cotton institutional schemes in SSA, and attempts to confront it with different performance indicators.<sup>62</sup> The general finding, which is consistent with what one could conclude from the reading of various previous studies, is that liberalization and privatization have not automatically led to higher returns for farmers, on the contrary.<sup>63</sup> Specifically, competitive sectors are found to perform well in terms of cost efficiency and deliver relatively high prices to farmers but perform badly in terms of quality, input provision, extension and yields. By contrast, they find public monopolies to perform poorly in terms of ginning cost-efficiency and overall competitiveness of the sector but well in terms of inputs provision, extension, yields and farmer welfare (with, sometimes, relatively good producer prices) – though the quality of extension is believed to have weakened over recent years. What follows, provides a brief overview of the evidence underlying these findings.

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<sup>60</sup> Several authors in fact also point to the limited extent of reforms in ESA as well as to frequent policy reversals in this region. These two phenomena are however believed to be of a significantly smaller magnitude in ESA than in WCA.

<sup>61</sup> Among these studies, see, in particular: Balat and Porto (2006), Boughton et al. (2003), Brambilla and Porto (2008), Tschirley and Kabwe (2007), Zulu and Tschirley (2002) on Zambia; Bargawi (2008a and 2008b), Beddies et al. (2006), Cooksey (2003); Dercon (1993), Gibbon (1998a, 1998b 1998c and 1999), Kähkönen and Howard (1999); Nylandsted and Larsen (2006) and Ponte (1998 and 2002) on Tanzania; Baffes (2004 and 2009), Lundbæk (2002) and Poulton and Maro (2007) on Uganda, Nylandsted and Larsen (2002 and 2006) on Zimbabwe; Boughton et al. (2003) on Mozambique.

<sup>62</sup> The typology differentiates between national monopolies (Cameroon, Mali, Chad and Senegal), local monopolies or ‘concessions’ (Mozambique, Burkina Faso, Côte d’Ivoire and Ghana), concentrated market-based sectors (Zambia and Zimbabwe), competitive sectors (Tanzania) and hybrid systems (Benin and Uganda). The indicators include both micro level and macro level evidence, regarding efficiency, effectiveness and distribution.

<sup>63</sup> “Although competitive sectors in ESA have outperformed more coordinated ones on pricing [in terms of producers’ share of FOT lint price], from a farmers’ perspective they have not done so to such an extent as to outweigh their disadvantages in terms of service provision.” (Tschirley et al., 2009) In an earlier review of cotton reform experiences in SSA, Goreux and MacRae (2003), reached the somehow similar conclusion that “no single model proved to be always superior to the others.”

### *Some expected outcomes*

First, in a number of studies, liberalization is found to be positively correlated with increasing producers' price shares. For example, Baffes (2002), reports an increase in the average Tanzanian producer price share from 41 percent of the export value prior to reform to 51 percent in the six years following reforms. Larsen (2002) reports similar price share increases from 42 percent to 53 percent post-reform in Zimbabwe. These price increases are identified with a clear supply response. Tschirley and Kabwe (2007) report a ten-fold production increase in Zambia from 1994 to 2005. Such correlations are consistent with the findings of the more general literature looking at agricultural commodities markets' reforms (e. g. Kherallah et al., 2000) However, in none of these studies is econometric estimation performed. Causation thus remains unverified and the relative influence of reforms in output growth, compared to other factors is not measured.

However, both in these broader studies, and in the cotton-specific papers, the price and supply responses are often found to be only weak and, most often, restricted to countries where the reforms have been implemented most thoroughly. (e. g. Cleaver and Donovan, 1995; Krueger et al., 1988) Looking at Tanzania, Beddies et al. (2006) for example find that, in the late 1990s, an appreciation in the real exchange rate offset the increase in producer price share. Consequently, output response vanished: "Seed cotton output almost doubled the year following the reform, only to decline gradually to below pre-reform levels."

### *Incentive problems*

Besides, these price effects did not come alone. Even where the supply response was positive, significant downturns were noted. The major pitfall, when introducing competition, seems to be the incentives for producers to default on their contract obligations – that is, not to repay their loans. This would occur either because the farmer has an incentive to use inputs on other crops or to sell them, either because the farmer has an incentive to sell his cotton to another buyer than the one who supplied him with the inputs (this is often called 'side-selling'). This undermines the sustainability of the input-credit schemes, thus making input consumption more difficult and, ultimately, challenging productivity. Tanzania is often cited as the typical case where competition led to a near-collapse of the sector. Reforms indeed fostered a particularly strong competition between ginners, with respect to other countries of the region: a few years after the liberalization, numerous traders and ginners competed on producer prices and historical operators retained less than half of the market. However, many did not offer inputs on credit, side-selling of cotton occurred on a large scale and the use of fertilizers significantly declined. The over-capacity of the ginning sector, and limited credit capacity of some ginners, also contributed to the shrinking of the input-credit offer as the ginners preferred to reserve all their liquidity to be able to buy a maximum of cotton at harvest time. (Gibbon, 1999) From

an average of 71000 tons over 1971-75, annual production fell to 46000 ton over the 1980s and quality deteriorated.<sup>64</sup>

### *Quality problems*

Quality was also challenged by the difficulty to preserve incentives. (Shepherd and Farolfi, 1999) In fact, while orthodox reformers argued that private ginners would have the incentive to promote the level of quality required by the market (Gilbert and Tollens, 2002), quality problems, of varying degrees, were observed in almost all liberalized markets – and this, at a time when the textile industry is demanding increasingly stringent quality requirements.<sup>65</sup> (Larsen, 2003) Indeed, quality reputation is established mainly at a national level and displays significant inertia. Hence, processors interested in short-term profits can sell lower quality cotton while enjoying high quality premia on the World market until the country's reputation falls. Going back to the Tanzanian example, competition led most buyers to stop systematic grading and to buy sub-quality cotton at the high-quality price to achieve higher capacity utilization, thus eliminating incentives for quality production.<sup>66</sup> As noted by Larsen (2003), such trends are difficult to reverse.<sup>67</sup> Privatization, per se, also seems to have had some pitfalls when the private sector was not capable of filling the gaps left by the State or parastatals. According to Gibbon (1999), quality losses would also have been due to seed quality deterioration, resulting from a mixing of different seed types following the end of zoning and from the selling of the best seeds to the local oil industry. As put by Sneyd (2006), “the uncoordinated and irreparable results of liberalization were a death sentence for Tanzanian exports to the rich countries.” In some countries, however, private solutions to such problems were found. Most of the time, they implied some sort of limit to the competitiveness of the sector (such outcomes will thus be discussed, below, together with issues pertaining to the degree of market competition).

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<sup>64</sup> It should be précised that Gibbon does report a few positive effects of reforms of which, the most notable is a more timely payment of producers (and an increase in this real price in the two first years, which he reports not be sustained).

<sup>65</sup> According to Larsen (2003): “The management of lint quality has become increasingly important for spinners due to technological developments (e.g. automation of the spinning process) and increased competition. [...] Quality is the main source of differentiation (and barriers to entry) in end-markets.”

<sup>66</sup> Gibbon (1999) for example reports that new entry in the Tanzanian cotton sector after liberalization created, in 1997/98, a “total annual capacity [that] corresponded to about double the level of the highest seed cotton crop in recent years.” Besides, he relates that, while low grade cotton accounted for 5 to 10 percent of purchases in Tanzania, after the reform, no purchase was recorded at all “for the reason that all cotton of BR [i.e. low] quality presented for sale has been purchased as of AR [i.e. high] grade”. In fact grading simply disappeared. Gibbon reports private traders' explanation for this: “if we grade, then the peasant will simply take his cotton to the next buyer.”

<sup>67</sup> Indeed, the fact that quality is mostly determined by national origin implies that, “once the reputation of a national crop has suffered and former customers have changed the composition of their blends, it becomes difficult to regain a specific market segment.” (Larsen, 2003)



### *Income distribution issues*

Reforms have also impacted income distribution in poorer rural areas. Using surveys in Zambia, Alwang et al. (1996) argue that remoteness and weak input markets precluded potential gains from market liberalization for many rural poor. Baffes (2002) reports that, in parts of Tanzania, some cotton farmers found themselves with no buyer at all. Such problems were observed for other crops too.<sup>68</sup> Using household survey data collected in three cotton-producing villages in rural Tanzania, Bargawi (2008b) investigates the differences in how producers experience cotton price volatility within and between seasons as well as the differences in price level and variability between the three villages. Her findings confirm many of the observations from earlier literature: “experience, amplitude and frequency of price changes and the response options and strategies available are shown to be very different in the three villages.” Price drops and price variability are the biggest in the most remote areas. There is also differentiation within villages. Wealth, and the quantity produced, seem to be key in determining the prices received by individual producers in as much as these factors allow them to manage within and between seasons variability by providing security (when possessing cattle for example), by offering the possibility to invest in storage facilities and by granting more bargaining power in times of downturn.

One last problem noted with reforms was the non-systematic disappearance of costs for the national budgets. As noted by Gibbon (1999) in the case of Tanzania: “It is an illusion to consider that the advent of free competition in developing country agriculture has been accompanied by an elimination of subsidies.”<sup>69</sup>

While the case of Tanzania is interesting to illustrate many unexpected effects of orthodox reforms in ESA, looking at the reform experiences of other countries in ESA is actually crucial to mitigate the present picture. And this is so, principally, because in other countries, the degree of competition has been more limited. Balat and Porto (2006) describe how, in the first years following cotton reform in Zambia, the three major firms succeeded in segmenting the market among themselves, resulting in the creation of local monopsonies rather than increasing the degree of competition in the country. Similarly, Tschirley and Zulu (2002) note that, in Zimbabwe, market entry remained very limited for

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<sup>68</sup> Akiyama et al. (2003) note how, “with liberalization, traders and exporters tended to concentrate their purchases in more accessible areas [...] and price differentials were sometimes much greater than the difference in transport costs.”

<sup>69</sup> According to Gibbon, “[the subsidies] have been transferred from being shared between producers and public marketing organisations (subsidies on inputs, infrastructure and credit to the public sector) to being monopolised by capital (mainly in the form of subsidies on credit to private enterprise).”

several years, with only three ginners, among which one accounted for 70 percent of all purchases.<sup>70</sup> Such limited competition probably resulted from (i) the experience accumulated by the historical firm, which enabled it to retain the loyalty of many farmers, (ii) from a less profound reform which granted advantages to the historical operator (as the State retained share in this historical firm), and (iii) from, possibly strategic, overcapacity deterring entry of investors, which were few. Competition restraints were also maintained thanks to cooperation between private ginners and the progressive set up of private and public regulation schemes. In Zambia, for example, several ginners, including the historical company, are pushing the Parliament to create a public regulation body that would set rules for investors to be allowed to enter the market and which would have the power to sanction firms that would not respect the rules – notably by promoting side-selling. (Tschirley et al., 2009)

One of the most recurrent features concerning the degree of competition in liberalized markets, especially in the more recent literature, is that it has been associated with better performance in several dimensions. ‘Creative private institutional arrangements’ have emerged more easily to find solutions to credit and quality problems, where firms (often the historical ones) have retained important market shares. In Zambia, for example, Brambilla and Porto (2008) report that firms began to print labels identifying them on cotton storing bags (which farmers are given when purchasing entrants on credit from one particular firm) and committed not to purchase cotton bags with labels of other firms.<sup>71</sup> In fact, the possible existence of a ‘not so positive’ or ‘not so clear’ link between the degree of competition and performance was also suggested in regional comparisons. Papers comparing ESA and WCA countries, never found that liberalized countries in ESA performed better than integrated countries in WCA. The evidence actually suggests rather the opposite. Looking at both producer price shares and average gross export value per hectare, Boughton et al. (2006) find that Benin and Mali range among the three best-performers, ahead of Zambia, Mozambique, Tanzania and Uganda – especially in terms of export value. And, as mentioned earlier, looking at many more performance indicators, Tschirley et al. (2009) find a similar picture, where regulated sectors in WCA are not outperformed by liberalized sectors in ESA. However, past policy, the implication of the CFDT, and other regional specificities might be partly responsible for present performance and bias estimates.

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<sup>70</sup> According to Kaminski (2008a), the historical firm in Zimbabwe in fact acted as a Stackelberg leader. Tschirley et al. (2009), similarly note how: “Zambia and Zimbabwe were both, until fairly recently, effective duopolies in which the top two forms accounted for 90 percent or more of seed cotton purchases.”

<sup>71</sup> According to them, this was made possible as a result of a near-collapse of the sector after which “farmers and firms understood the importance of honouring contracts and the benefits of maintaining a good reputation.” (Brambilla and Porto, 2008) Poulton (2006), however, reports that, while this allowed the credit repayment rate to rise from around 65 to over 90 percent, this score fell again starting in 2006, as cotton production became less attractive to farmers following an appreciation of the real exchange rate. This might indicate the vulnerability of such arrangements to the economic cycle.)

On the other hand, limited competition in some countries has also meant that companies have taken advantage of their market power. (Dorward 1998) In countries where some of the previously mentioned problems were avoided, the gains in terms of producer price share have been limited. For example, Tschirley et al. (2009) show how the main company's price leadership in Zambia means that prices nationwide adjust only from year to year, with no within-season competition on prices. Worse, looking at Zimbabwe, these authors find that a recent surge in competition did in fact undermine the input credit scheme and quality promotion without having any positive effect on producer prices. In fact in concentrated sectors, competition can occur at the level of pre-harvest services rather than on producer prices. As a result, they find that farmers' returns are similar in Zambia, where key services allow better yields and quality, and in Tanzania, where producers receive a higher share of the f.o.b. price. Alternatively, this result can be seen as meaning that almost perfect competition has increased producers' price share, but not to the point as to outweigh the effects of poor service provision on farmers' returns.

The net outcome of market reforms and the link between market structure and performance remains hard to specify, with regards to the existing empirical literature.<sup>72</sup> However, three patterns emerge from the evidence reviewed. First, when positive, the impact of reforms has tended to be of limited magnitude. Second, liberalized sectors do not always perform better than integrated sectors, and sometimes, display clearly worse performance. Third, among liberalized sectors, it seems that the best performers are those where the degree of competition has remained limited, with two or three big companies representing a large share of the market and providing inputs on credit. However, as noted by Tschirley and Kwabe (2007), concentrated market-based systems tend to be unstable when they are subject to easy entry.<sup>73</sup> According to Tschirley et al. (2009): "Tipping points may exist, in which, the entry of two or three additional companies can dramatically change the prospects of coordination for input supply and extension (and quality control)." This points to the difficulty to find a balance between coordination – to ensure the efficient provision of inputs and the promotion of quality – and competition to allow a fair sharing of profits between farmers and ginners.

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<sup>72</sup> Tschirley et al. (2009) conclude that "structure does explain a good share of the variability in sector performance." However, this conclusion applies only to intermediate performance indicators such as yields or price shares. Final performance, notably in terms of poverty reduction, being a combination of different intermediary indicators, which vary in different directions with market organization, the net effect is difficult to predict. The following chapters will attempt to contribute to such evidence by identifying more clearly causality, or the absence of any causality.

<sup>73</sup> Tschirley et al. (2009) similarly note how "in the current setting in SSA, marked by institutional and human capacity weakness, these sectors have a difficult time maintaining their concentrated structure." They report, for example, that in Zimbabwe, the total number of ginners grew from 5 in 2000/01 to 17 in 2006/07. For this reason, they believe "that moving in WCA to fully privatized markets allowing competition among companies, even if the market is initially very concentrated, is risky because of the possible instability of concentrated sectors." Instead, they recommend to "use the local monopoly approach to develop sound regulatory mechanisms and build the operational capacity of farmer organizations."

## 2.2. Lessons from the literature

This section seeks to explain the three major patterns identified in the empirical literature results. As just explained, all three seem to be linked to the extent to which reforms were implemented and the degree of competition achieved. However, this so in a contradictory manner: while the smallness of reform effects can be explained by a limited implementation of orthodox recommendations, explicating the negative links between outcomes and reforms in some countries and between the degree of competition and performance in liberalized markets, requires a structural questioning of the theory. This section starts by reviewing the factors that were considered responsible for the first observation and then focuses on the reasons that were advanced to explain the latter two.

First of all, a quick note has to be made on several methodological issues and data availability. To start with, many of the impact assessments reviewed were conducted just a few years after reform implementation.<sup>74</sup> What is more, most of them in fact provide relatively little information on several variables of interest: most studies focus on producers' price share as a performance indicator and indications on farmer returns, poverty rates, and food security or, simply, yields are missing. More importantly, many external factors interacted with reforms – among which, variations, both across countries and through time, in World market conditions, in agro-climatic conditions, in macro-economic policies, in sectoral policies in competing sectors, or in political economy variables. (Meerman, 1997) Besides, Akiyama et al. (2003) note: “More often than not, luck and timing, as much as policy and analysis, have shaped both perceptions and measures of market reform outcomes.” And, with a few exceptions (among which, Brambilla and Porto, 2009), these external factors are not really accounted for as there is no econometric analysis performed and household-level data are rarely examined.

### *Reform implementation and institutional constraints*

Turning to the reasons for the limited magnitude of supply response to liberalization, one of the most commonly advanced factors was the limited scope of reforms, their imperfect implementation and frequent re-regulations of the sector. Kherallah et al. (2000) notably pinpoint a weak commitment of the local Administrations resulting from the fact that reforms were imposed by donors and were to deprive some of rents and privileges and from fears of public revenue losses.

Many papers blame a wrong timing of reforms and the lack of consideration of the need to reinforce, prior to market structure changes, (i) the capacities of the private sector and (ii) the institutional

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<sup>74</sup> As mentioned earlier, in several cases, production increased in the first place, only to fall to levels inferior to pre-reform performance, a few years later.

environment.<sup>75</sup> (e. g. Jayne et al., 1997; Kherallah, 2002 or Lele and Chistiansen, 1989) In their review of Laffont (2005), Estache and Wren-Lewis (2008) note how privatization might not be an effective regulation instrument in developing countries as “ownership is not an extremely effective tool when dealing with problems in the surrounding institutional environment.”<sup>76</sup> Similarly, while orthodox recommendations place a lot of importance on price incentives, some have argued that price incentives alone cannot lead to efficient resource allocation if the minimum level of infrastructures or services are lacking and should thus not be considered in isolation of several non-price factors such as research, extension, institutions or the colonial legacy. (e. g. Kherallah et al., 2002 or Timmer, 1991) Lele et al. (1989) actually try to measure the respective significance of price and non-price factors (“assumed to be the residual effects on cotton output after price effects have been taken into account”) and conclude that the latter are more important, unless institutions and infrastructure are very scarce.<sup>77</sup> Farmers’ risk aversion is seldom taken into account in orthodox recommendations. Makdissi and Wodon (2004) find that prices would have to increase very significantly, to offset the disincentive provoked by increased price uncertainty.

### *Institutional issues: a rationale for ‘heterodox’ market reforms*

Recent theoretical work has attempted to explain the failures of orthodox policies in certain types of markets – and justify some degree of state intervention or restrictions to competition – building on the NIE literature (Williamson, 1975; North, 1990). In various papers looking at cotton, as well as other commodities, mostly in ESA, Dorward, Kydd, Poulton and their co-authors establish that greater levels of competition have not always been associated with better performance because of various market imperfections, among which, principally, imperfect information availability and imperfect rule enforcement. (e.g. Dorward et al. 1998 ; Poulton et al. 2004 ; Poulton, 2006 or Poulton et al., 2005) First, they point to the fact that the high asset-specificity of investments needed for cotton production and weak enforcement mechanisms combine to create scope for potential strategic defaulting (i.e. not abiding by contract terms) or potential specification opportunism (i.e. cheating by misinforming),

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<sup>75</sup> Illustrative of what can be considered ‘naïveté’ or ‘wishful thinking’, Badiane et al. (2002) note how “to sustain the broad access to quality products that has been achieved under the administered monopoly but in the context of competitive import and distribution systems”, “national governments would have to enact and enforce adequate regulatory systems to protect contract rights, maintain quality standards, and safeguard human health and environmental safety.”

<sup>76</sup> Actually, recent publications by the World Bank agree on such conclusions: “Lessons learned in the 1990s suggest that transferring public property to private enterprises is not enough, by itself, to put the sector back to a sustainable path.” (Baghdadli et al., 2007)

<sup>77</sup> Similarly, Bargawi (2008b) believes that “the idea that producers are responding simply to a change in the absolute of relative price of cotton can be dismissed from [her study of Tanzanian cotton reforms]. Instead , she finds that “producers in Mwanza region are responding to the lack of input provision, payment delays and lack of buyers in the village.

which both, in turn, result in creating uncertainty over the value-added to be created by transactions.<sup>78</sup> In the case of cotton, strategic defaulting would take the form, for example, of side-selling or input diversion by producers and partial or late payment by ginners and, specification opportunism could appear in adulteration by producers or under-weighing by ginners. World price volatility and climatic and pest uncertainty add to this systemic risk, which, in fine, might result in under-investment (in credit provision, services delivery, research, extension or quality promotion) and poor efficiency. They further attribute the problem of underinvestment to what they call “coordination failures”, which they define as “the failure to make an investment due to a possible absence of complementary investments by other players at different stages in the supply chain.” (Dorward et al., 2004) As a typical example of such externalities, they point to the need for insecticide sprays to be performed by neighbouring producers too to be most effective. Quality problems are also partly attributed to coordination failure: as seen in the previous section, in a situation of ginning over-capacity, if all ginners do not agree to differentiate prices according to quality grades, producers will likely sell to the less stringent buyers, thus undermining quality-promotion incentives. The sustainability of quality incentives is all the more problematic that quality premia for cotton are found to be relatively low and that costs associated with under-capacity ginning are high. Figure 7 provides a graphical illustration of how cotton characteristics (plain ovals) and market imperfections (dotted ovals) are seen to interact and the consequences of these interactions in terms of market efficiency (grey boxes).

The institutional means identified to overcome (partly) specification opportunism, strategic default and coordination failure include vertical coordination (as with parastatals or local monopolies), horizontal coordination (more likely to be found in concentrated market-based sectors), farmer collective action or government regulation (making input provision mandatory for example, or punishing more severely side-selling). An important feature of all these institutional arrangements is that they imply some sort of limitation to the degree of competition, and as such, have a number of drawbacks identified in the orthodox literature. The core of this analysis is thus to pinpoint the existence of a trade-off between competition and coordination. This trade-off is found to be particularly acute in the case of SSA cotton because the need for various inputs combines with strong farm level liquidity constraints to make efficient credit arrangement the cornerstone of the production system. Similarly, the need for specific effort at the farm level to ensure quality, combines with low levels of education and poor access to information to make efficient extension provision another key to sector competitiveness. The description of these trade-offs helps to explain some of the findings reviewed in the previous section: the financial inefficiencies of parastatals and their tendency to tax producers, on the one hand, and the fragility of private sector coordination attempts to provide several critical functions in unstable

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<sup>78</sup> Asset-specificity refers to the existence of sunk costs when making investments that are specific to one transaction. This means that, should a transaction fail, returns to the investment are significantly reduced.

competitive markets, on the other hand, can be seen as outcomes of the difficulty to achieve a balance between competition and coordination. As noted by Poulton et al. (2005), this is “an important point that needs wider recognition and a more nuanced approach than general calls for reduced barriers to entry and greater competition in agri-business and market development.” (Poulton et al., 2005) Figure 8, taken from Tschirley et al. (2009), summarizes the different links between market structure and performance identified in the cotton sector. Most of these links are investigated formally with the model, except for the links between market structure and research and between market structure and extension. However, in the empirical literature, no evidence is found of the former and the latter is identified to be closely related to the link between market structure and input credit, which we investigate.<sup>79</sup> We also look at the link between market structure and taxes and subsidies, which we do not believe to be exogenous, as is supposed in Labaste et al.’s analytical framework.

## Conclusion

This paper has set the basis for future research on the link between market structure and performance in West African cotton sectors.

## Bibliography

AFD. 2004. “Cotton cultivation in Burkina Faso – a 30 year success story.” Presented at the conference *Scaling up poverty Reduction: A Global Learning Process and Conference*, hosted by the ADB, May 25-27, Shanghai.

AHMED, I. I. and M. LIPTON. 1997. “Impact of structural adjustment on sustainable rural livelihoods: a review of the literature.” University of Sussex, IDS Working Paper No. 62.

AKIYAMA, T., J. BAFFES, D. LARSON, and P. VARANGIS. 2003. “Commodity Market Reform in Africa: Some Recent Experience.” *Economic Systems*, 27, pp. 83-115.

ARAUJO BONJEAN, C. and J.-L. COMBES. 2001. “Modes l’organisation des filières et lutte contre la pauvreté: les cas du coton et du cacao.” Ministère des Affaires Etrangères.

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<sup>79</sup> On the link between market structure and research, Tschirley et al. (2009) conclude: “Research efficacy is not clearly linked to sector type.” They further note: “history exerts a relatively greater influence.” On the link between market structure and extension, they find that “performance on input credit and extension is likely to be correlated across sector types: sectors performing well compared with other sector types on input credit are likely to perform well on extension. This correlation is in large measure due to the complementarity of the two activities.”

AZAM, J.-P. AND N. DJIMTOINGAR. 2004. "Cotton, War and Growth in Chad (1960-2000)." Prepared as a component of the African Economic Research Consortium Collaborative Research Project *Explaining Africa's Growth Performance*.

BADIANE, O., D. GHURA, L. GOREUX and P. MASSON. 2002a. "Cotton Sector Strategies in West and Central Africa." World Bank Policy Research Working Paper No. 2867.

BADIANE, O., D. GHURA, L. GOREUX and P. MASSON. 2002b. "Cotton Sector Strategies in West and Central Africa." IMF Working Paper No. 02/173.

BAFFES, J. 2009. "The 'Full Potential' of Uganda's Cotton Industry." *Development Policy Review*, 27 (1), pp. 67-85.

BAFFES J. 2007. "Distortions to cotton Sector Incentives in West and Central Africa." Presented at the CSAE conference *Economic Development in Africa*, March 19-20, Oxford.

BAFFES, J. 2004b. "Tanzania's Cotton Sector: Reforms, Constraints and Challenges." *Development Policy Review*, 22 (1), pp. 75-96.

BAFFES, J. 2004a. "Cotton: Market Setting, Trade Policies, and Issues." World Bank Policy Research Paper, No. 3218.

BAFFES, J. 2002. "Tanzania's cotton sector: Constraints and challenges in a global environment." Mimeo, World Bank, Development Prospects Group and Africa Region.

BAGHDADLI, I, H. CHAIKHROUHOU and G. RABALLAND. 2007. "Strategies for Cotton in West and Central Africa. Enhancing competitiveness in the 'Cotton-4'." World Bank Working Paper No. 108.

BALAT, J. F. and G. G. PORTO. 2006. "The WTO Doha Round, Cotton Sector Dynamics and Poverty Trends in Zambia," in T. W. Hertel and L. A. Winters, eds., *Putting Development Back into the Doha Agenda: Poverty Impacts of a WTO Agreement*. New York: Palgrave Macmillan and Washington, DC: The World Bank.

**BARRETT, C.B. and E. MUTAMBATSERE. 2005. "Agricultural Markets in Developing Countries," in The New Palgrave Dictionary of Economics, 2<sup>nd</sup> Edition. London: Palgrave Macmillan (forthcoming).**

BARGAWI, H. 2008. "Cotton Price Fluctuations at the Ground-level: Assessing the Difference in Impact in Rural Tanzania." NCCR Trade Working Paper No. 2008/11.

BASSETT, T. J. 2001. *The peasant Cotton Revolution in West Africa. Côte d'Ivoire, 1880-1995*. New York: Cambridge University Press.



- BATES, R. H. 1981. *Markets and States in Tropical Africa. Berkeley and Los Angeles: University of California Press.*
- BEDDIES, S. , M. CORREIA, S. KOLAVALLI and R. TOWNSEND. 2006. "Tanzania. Crop Boards Reform," in A. Coudouel, A. A. Dani and S. PATERNOSTRO, eds., *Poverty and social impact analysis of reforms: lessons and examples from implementation.* Washington, D.C.: The World Bank.
- BERG, E. 1981. *Accelerated Development in Sub-Saharan Africa: An Agenda for Action.* Washington D.C.: The World Bank.
- BIERSCHENK, T. and J.-P. DE SARDAN. 2003. "Power in the village: Rural Benin Between Democratisation and Decentralisation." *Journal of the International African Institute*, 73 (2), pp. 145-173.
- BIJMAN, J. and M. WOLLNI. 2008. "Producer organizations and vertical coordination: an economic organization theory perspective." Presented at the *International Conference on Cooperative Studies*, October 7-9, Köln.
- BINGEN, R. J. 1998. "Cotton, Democracy and Development in Mali." *Journal of Modern African Studies*, 36 (2), pp. 265-285.
- BIRD, K., D. BOOTH AND N. PRATT. 2003. *Food security Crisis in Southern Africa: The Political Background to Policy failure.* London: Forum for Food Security in Southern Africa.
- BOONE, C. 2003. *Political Topographies of the African State: Territorial Authority and Institutional Choice.* Cambridge: Cambridge University Press.
- BOOTH, D. 2009. "Elites, governance and the public interest in Africa: working with the grain?" Africa power and politics Discussion Paper No. 6, DFID and Irish Aid.
- BOUGHTON, D., D. TSCHIRLEY, B. ZULU, A. OSORIO OFIÇO and H. MARRULE. 2003. "Cotton Sector Policies and Performance in Sub-Saharan Africa: Lessons Behind the Numbers in Mozambique and Zambia." Presented at the *25th International Conference of Agricultural Economists*, August 16-22, Durban.
- BOURDET, Y. 2004. "A tale of Three Countries – Structure, Reform and Performance of the Cotton Sector in Mali, Burkina Faso and Benin." Sida Country Economic Report 2004:2.
- BRAMBILLA, I. and G. PORTO. 2008. "Market Structure, Outgrower Contracts and Farm Output. Evidence from Cotton Reforms in Zambia."

- BURGESS (1997). "Smallholder Voice and Rural Transformation: Zimbabwe and Kenya Compared." *Comparative Politics*, 29 (2), January, pp. 127-149.
- CAMPBELL, B. 1975. "Neocolonialism, Economic Dependence and Political Change: a study of cotton and textile production in the Ivory Coast 1960 to 1970." *Review of African Political Economy* 2 (2), pp. 36-52.
- CARR, S. J. 1993. "Improving Cash Crops in Africa. Factors Influencing the Productivity of Cotton, Coffee, and Tea Grown by Smallholders." World Bank Technical Paper No. 216.
- CHIRWA, E., A. DORWARD, R. KACHULE, I. KUMWENDA, J. KYDD, N. POOLE, C. POULTON AND M. STOCKBRIDGE. 2005. "Farmer Organisations for Market Access: Principles for Policy and practice." University of Malawi and Imperial College.
- CLEAVER, K. M. and W. G. DONOVAN. 1995. "Agriculture, Poverty, and Policy Reform in Sub-Saharan Africa." World Bank Discussion Paper No. 280.
- COOKSEY, B. 2004a. "Marketing reform? The rise and fall of agricultural liberalisation in Tanzania," in F. Ellis and H.A. Freeman, eds., *Rural Livelihoods and Poverty Reduction Policies*. London: Routledge.
- COOKSEY, B. 2004b. "Tanzania: Can PRS Succeed Where SAP Failed?" HakiElimu Working Paper Series.
- DANIDA. 2004. "Farmer Empowerment. Experiences, Lessons Learned And Ways Forward. Volume 1." Technical Paper.
- DE GRASSI, A. 2008. "'Neopatrimonialism' and Agricultural Development in Africa: Contributions and Limitations of a Contested Concept." *African Studies Review*, 51 (3), December, pp.107-133.
- DE SARDAN, O. 2009. "Les huit modes de gouvernance locale en Afrique de l'Ouest." Afrique : pouvoir et politique, Working Paper No. 4.
- DERCON, S. 1993. "Peasant Supply Response and Macroeconomic policies: Cotton in Tanzania." *Journal of African Economies*, 2 (2), pp. 157-194.
- DORWARD, A., P. HAZELL AND C. POULTON. 2008. "Rethinking Agricultural Input subsidies in Poor Rural Economies." Future Agricultures Briefing.

DORWARD, A., J. KYDD AND C. POULTON. 2004. "Market and Coordination Failures in Poor Rural Economies: Policy Implications for Agricultural and Rural Development." Presented at the AAAE Conference *Shaping the future of African Agriculture for Development : The Role of Social Scientists*, 6 to 8 December, Nairobi.

DORWARD, A., J. KYDD AND C. POULTON. 1998. *Smallholder Cash Crop Production under Market Liberalization: A New Institutional Perspective*. Wallingford: CAB International.

EAGLTON-PIERCE, M. 2008. "The competing Kings of cotton." Presented at International Studies Association Annual Convention, March 26-29, San Francisco.

EASTERLY. 2004 "What did structural adjustment adjust? The association of policies and growth with repeated IMF and World Bank adjustment loans." *Journal of Development Economics*, 76 (1), pp.1-22.

EICHER, C. 1982. "Facing Up to Africa's Food Crisis." *Foreign Affairs*, 61, pp. 151-174.

EISA, H. H., S. BARGHOUTI, F. GILLHAM and M. T. AL-SAFFY. 1994. "Cotton Production Prospects for the Decade to 2005. A Global Overview." World Bank Technical Paper No. 231.

ESSAMA-NSSAH, B., I. SAMAKÉ and J. WALLISER. "2006. Burkina Faso. A Macroeconomic Approach to Analyze Cotton Sector Reform," in A. Coudouel, A. A. Dani and S. PATERNOSTRO, eds., *Poverty and social impact analysis of reforms: lessons and examples from implementation*. Washington, DC: The World Bank.

ESTACHE, A. and L. WREN-LEWIS. 2008. "Towards a theory of Regulation for developing Countries: Insights from Jean-Jacques Laffont's last book."

FOK, A. C. M. 1993. "Le développement du coton au Mali par analyse des contradictions : Les acteurs et les crises de 1895 à 1993." CIRAD, Document de travail de l'UR Economie des Filières No. 8.

FRIEDMAN, M. 1954. "The reduction of fluctuations in the incomes of primary producers: a critical comment," *Economic Journal*, 64, pp. 698-703.

GILLHAM, F. E. M., T. M. BELL, T. ARIN, G. A. MATTHEWS, C. Le RUMEUR and A. B. HEARN. 1995. "Cotton Production Prospects for the Next Decade." World Bank Technical Paper No. 287.

GIBBON, P. 1999. "Free Competition Without Sustainable Development? Tanzanian Cotton Sector Liberalisation, 1994/95 to 1997/98." *The Journal of Development Studies*, 36 (1), pp.128-150.

GIBBON, Peter. 1998a. "Peasant Cotton Cultivation and Marketing Behaviour in Tanzania since Liberalisation." CDR Working Paper Subseries No. 98.16.

GIBBON, P. 1998b. "King Cotton under Market Sovereignty: The Private Marketing chain for Cotton in Western Tanzania, 1997/98." CDR Working Paper Subseries No. 98.17.

GIBBON, Peter. 1998c. "Limping towards a Ditch without a Crutch: The Brave New World of Tanzanian Cotton Marketing Cooperatives." CDR Working Paper Subseries No. 98.18.

GOREUX, L. 2003. "Réformes des filières cotonnières en Afrique subsaharienne." Ministère des Affaires Etrangères.

GOREUX L. and J. MACRAE. 2003. "Reforming the Cotton Sector in Sub-Saharan Africa (SSA)." World Bank Africa Region Working Paper Series No. 47.

GOVEREH, J., T.S. JAYNE, and J. NYORO. 1999. "Smallholder Commercialization, Interlinked Markets and Food Crop Productivity: Cross-Country Evidence in Eastern and Southern Africa." Michigan State University, Department of Agricultural Economics and Department of Economics.

HIBOU, B. 1998. "The political Economy of the World Bank's Discourse: from Economic Catechism to Missionary Deeds (and Misdeeds)." Les Etudes du CERDI No. 39.

HIRSCHMAN, A. 1958. *The strategy of economic development*. New Haven: Yale University Press.

HUGON, P. 2005. "Les filières cotonnières africaines au regard de l'économie du développement." Présenté aux Journées de l'Association Française de Science Economique 2005, au CERDI, le 20 mai, Clermont Ferrand.

HUSSEIN, K., C. PERRET and L. HITIMANA. 2006. *Cotton in West Africa. The Economic and Social Stakes*. Paris: The OECD.

ISAACMAN, A. and R. ROBERTS, eds. 1995. *Cotton, colonialism and social history in Sub-Saharan Africa*. Portsmouth : Heinemann ; London : James Currey.

JAYNE, T.S., J. D. SHAFFER, J. M. STAATZ, and T. REARDON. 1997. "Improving the Impact of Market Reform on Agricultural Productivity in Africa: How Institutional Design Makes a Difference." Michigan State University International Development Working Papers No. 66.

JOHNSTON, B. and J. MELLOR. 1961. "The role of agriculture in economic development," *American Economic Review*, 51 (4), pp. 566-593.

KAMINSKI, J. "Subjective Wealth and Rural Development: the Cotton Reform in Burkina Faso as a case in point."

KAMINSKI, J. 2008b. "Interlinked Agreements and Institutional Reform in the Cotton Sector of Burkina Faso."

KAMINSKI, J. 2008a. "Cotton Reforms across Sub-Saharan Africa: Review of Issues and Cross-Country Evidence." Unpublished.

KAMINSKI, J., D. HEADEY and T. BERNARD. 2009. "Institutional Reform in the Burkinabe Cotton Sector and its Impacts on Incomes and Food Security: 1996-2006." The Hebrew University of Jerusalem, Department of Agricultural Economics and Management Discussion Paper No. 5.09.

KAMINSKI, J. and A. THOMAS. "Commodity Reform and Extensive Production Growth: Evidence" from Burkinabè cotton farmers."

KHERALLAH, M., C. DELGADO, E. GABRE-MADHIN, N. MINOT, and M. JOHNSON. 2000. "The Road Half Traveled: Agricultural Market Reform in Sub-Saharan Africa." International Food Policy Research Institute.

KNUDSEN, O., J. NASH, J. BOVARD, B. GARDNER and L. A. WINTERS. 1990. "Redefining the Role of Government in Agriculture for the 1990s." World Bank Discussion Paper No. 105

KRANTON, R. and A. SWAMY. 2006. "Contracts, Hold-Up and Exports: Textiles and Opium in Colonial India." *American Economic Review*, 98 (3), pp. 967-989.

**KRUEGER, A. O., M. SCHIFF and A. VALDÉS. 1988. "Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies." The World Bank Economic Review, 2 (3), pp. 255-271.**

**KWABE, S. and D. TSCHIRLEY. 2007. "Farm Yields and Returns to Farmers From Seed Cotton: Does Zambia Measure Up?" Michigan State University International Development Collaborative Policy Briefs No. ZM-FSRP-PB-26.**

LEATHERS, H. AND S. KÄHKÖNEN. 1998. "Is There Life after Liberalization? Transaction Costs Analysis of Maize and Cotton Marketing in Zambia and Tanzania." University of Maryland, Center for International Reform and the Informal Sector, Working Paper No. 211.

LELE, U., N. VAN DE WALLE, M. GBETIBOUO. 1989. "Cotton in Africa. An Analysis of Differences in Performance." World Bank MADIA Discussion Paper No. 7.

LELE, U. and R. E. CHRISTIANSEN. 1989. "Markets, Marketing Boards, and Cooperatives in Africa. Issues in Adjustment Policy." World Bank MADIA Discussion Paper No. 11.

LEVRAT, R. 2009. *Le coton dans la zone franc depuis 1950. Un succès remis en cause.* Paris : L'Harmattan.

LEVRAT, R. 2008. *Le Coton En Afrique Occidentale Et Centrale Avant 1950 - Un Exemple De La Politique Coloniale De La France* Paris : L'Harmattan.

LEWIS, W. A. 1954. "Economic development with unlimited supply of labor." *Manchester School of Economic and Social Studies* 22 (2), pp. 139-91.

MAIER, D. J. E. "Persistence of precolonial patterns of production: cotton in German Togoland, 1800-1914", in A. Isaacman and R. Roberts, eds., *Cotton, colonialism, and social history in Sub-Saharan Africa*. Portsmouth and London: Heineman and James Currey Ltd éditeur, pp. 71-95.

MAKDISSI, P. and Q. WODON. 2004. "Price Liberalization and Farmer Welfare Under Risk Aversion: Cotton in Benin and Ivory Coast." Université de Sherbrooke, Département d'Economie, Working Paper No. 04-09.

MCRAE, J. 2003. "Etude comparative sur l'impact de la libéralisation du secteur cotonnier en Afrique Subsaharienne. 2<sup>ème</sup> Partie : Les études pays. " Ministère des Affaires Etrangères.

MEERMAN, J. P. 1997. "Reforming Agriculture: The World Bank Goes to Market."

MINOT, N. and L. DANIELS. 2002. "Impact of global cotton markets on rural poverty in Benin."

Presented at the Northeast Universities Development Consortium Conference, October 25-27, Williamstown. This paper was prepared for the World Bank.

MOSELY, W. G. AND L. C. GRAY. 2008. *Hanging by a Thread. Cotton, Globalization and Poverty in Africa*. Athens: Ohio University Press.

NORTH, D. 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge : Cambridge University Press.

NYLANDSTED LARSEN, M. 2006. "Market Coordination and Social Differentiation: A Comparison of Cotton-Producing Households in Tanzania and Zimbabwe." *Journal of Agrarian Change*, 6 (1), pp. 185-205.

LARSEN, M. 2003. "Quality Standard-Setting in the Global Cotton Chain and Cotton Sector Reforms in Sub-Saharan Africa." *Institute for International Studies, IIS/GI. Kongevej Working Paper 03.7*

LARSEN, M. 2002. "Is Oligopoly a Condition of Successful Privatization? The Case of Cotton in Zimbabwe." *Journal of Agrarian Change*, 2 (2), December, pp. 185-205.

OXFAM. 2007. "Pricing Farmers out of Cotton: The costs of World Bank reforms in Mali." Oxfam Briefing Paper No. 99.

PEACOCK C., A. JOWETT, A. DORWARD, C. POULTON and I. UREY. 2004. "Reaching the Poor, A call to action: investment in smallholder agriculture in sub Saharan Africa." FARMAfrica, Harvest Help and Centre for Development and Poverty Reduction, Imperial College.

PERRIN, S. et D. LAGANDRE. 2005. "Le coton africain face à la concurrence du marché mondial." Agence Française de Développement, Rapport thématique JUMBO No. 6.

PITCHER, M. A. 1996. "Recreating Colonialism or Reconstructing the State ? Privatisation and Politics in Mozambique." *Journal of Southern African Studies*, 2 (1), March, pp. 49-74.

POULAIN, H., 1863. *Production du coton dans les colonies*. Paris : Challamel.

POULTON, C. 2007. "All-Africa Review of Experiences with Commercial Agriculture. Cotton Case Study." World Bank background paper for the Competitive Commercial Agriculture in Sub-Saharan Africa (CCAA) Study.

POULTON, C. 2006. "Bulk Export Commodities: Trends and Challenges." World Bank background paper for the World Development Report 2008 No. 41374.

POULTON, C. and W. MARO. 2007. "Multicountry Review of the Impact of Cotton Sector Reform in sub-Saharan Africa: Tanzania Country Study." Prepared for the World Bank (mimeo).

POULTON, C., P. GIBBON, B. HANYANI-MLAMBO, J. KYDD, W. MARO, M. NYLANDSTED-LARSEN, A. OSORIO, D. TSCHIRLEY AND B. ZULU. 2004. "Competition and Coordination in Liberalized African Cotton Market Systems." *World Development*, 22 (3), pp. 510-536.

PONTE, S. 1998. "Fast Crops, Fast Cash: Market Liberalization and Rural Livelihoods in Songea and Mororo Districts, Tanzania." *Canadian Journal of African Studies*, 32 (2), pp. 316-48.

PONTE, S. 2002. *Farmers and Markets in Tanzania: How Policy Reforms Affect Rural Livelihoods in Africa*. Oxford: James Currey.

PREBISCH, R. 1949. "The spread of technical progress and the terms of trade," *Economic Bulletin for Latin America*, 7, pp.1-22.

SABUNE, J. 1996. "Experiences of Uganda with Privatization of its Cotton Industry." Presented at the 55<sup>th</sup> Plenary Meeting of the International Cotton Advisory Committee, Tashkent.

SAVADOGO, K. and P. MANGENOT. Forthcoming. "The Cotton Sector in Burkina Faso. Performance, Crisis and the Way Forward." Draft final report.

- SCHWARTZ, A. 1996. "Attitudes to cotton growing in Burkina Faso: Different farmers, different behaviours", in M. Benoit-Cattin, M. Griffon, and P. Guillaumont, eds., *Economics of agricultural policies in developing countries*. Paris: Revue Française d'Economie.
- SCHWARTZ, A. 1993. *Brève histoire de la culture du coton au Burkina Faso*. Ouagadougou: Association Découverte du Burkina, Centre culturel français George Melies, Orstom.
- SHEPHERD, A.W. 2007. "Approaches to linking producers to markets." FAO Agricultural Management, Marketing and Financial Occasional Paper No. 13.
- SHEPHERD, A.W. and S. FAROLFI. 1999. "Export Crop Liberalization in Africa. A Review." FAO Agricultural Services Bulletin No. 135.
- SHEPHERD, B. 2007. "Regulatory Reform in Mali's Cotton Sector: What are the Impacts on Supply Response?" Preliminary and incomplete draft.
- SHEPHERD, B. and C. DELPEUCH. 2007. "Subsidies and Regulatory Reform in West African Cotton: What are the Development Stakes?" Groupe d'Economie Mondiale Policy Brief No. 2007-01.
- SINGER, H. 1950. "The distribution of gains between investing and borrowing countries," *American Economic Review*, 40, pp. 473-85.
- SNEYD, A. 2006. "Cotton and Poverty in Sub-Saharan Africa: A Review of the Factors." Ph.D. Qualifying Paper, McMaster University.
- SPOONER, N. and L. SMITH. 1991. "Structural adjustment policy sequencing in Sub-Saharan Africa." FAO Economic and Social Development Paper 104.
- STÜRZINGER, U. 1983. "The introduction of cotton cultivation in Chad: the role of the administration, 1920-1936." *African Economic History*, 12, pp.213-225.
- TANGUY, B., A DE JANVRY and E. SADOULET. 2009. "When Does Community Conservatism Constrain Village Organizations?" Forthcoming in *Economic Development and Cultural Change*.
- TANGUY, B., M.-H. COLLION, A DE JANVRY, P. RONDOT and E. SADOULET. 2008. "Do Village Organizations Make a Difference in African Rural Development? A Study for Senegal and Burkina Faso." *World Development*, 36 (11), pp. 2188-2204.
- TEFFT, J. 2003. "Mali's White Revolution: Smallholder Cotton from 1960 to 2003." Presented at the InWEnt, IFPRI, NEPAD, CTA conference *Successes in African Agriculture*, December 1-3, Pretoria.



TIMMER, C. P. 1991. *Agriculture and the state: growth, employment and poverty in developing countries*. Ithaca: Cornell University Press.

**TOLLENS, E. F. and C. L. GILBERT. 2003. "Does Market Liberalisation Jeopardise Export Quality? Cameroonian Cocoa, 1988–2000." *Journal of African Economies*, 12 (3), pp. 303-342.**

TOWNSEND , R.F. 1999. "Agricultural Incentives in Sub-Saharan Africa. Policy Challenges." World Bank Technical Paper No. 444.

TSCHIRLEY, D., and B. ZULU. 2002. "Zambian Cotton in a Regional Context: Performance Under Liberalization and Future Challenges". Zambia FSRP Policy Synthesis.

VAN DE WALLE, N. 2001. *African Economies and the Politics of Permanent Crisis, 1979-1999*. Cambridge: Cambridge University Press.

VITALE, J. D. and H. SANDERS. 2005. "Estimating the Impacts of Liberalization in West Africa: The Malian Case." Presented at the American Agricultural Economics Association Annual Meeting, July 24-27, Providence.

WHITE, L. and M. WILLIMAS. 2009. "Bargaining with Imperfect Enforcement." *The RAND Journal of Economics*, 40 (2), pp. 317-339.

WORLD BANK. 2004. "Benin. Cotton Sector Reforms: A poverty and Social Impact Analysis." Report No. 29951-BJ.

WORLD BANK. 2001. "Empowering Farmers in Sub-Saharan Africa: Best Practices." Findings Africa Region No. 33.

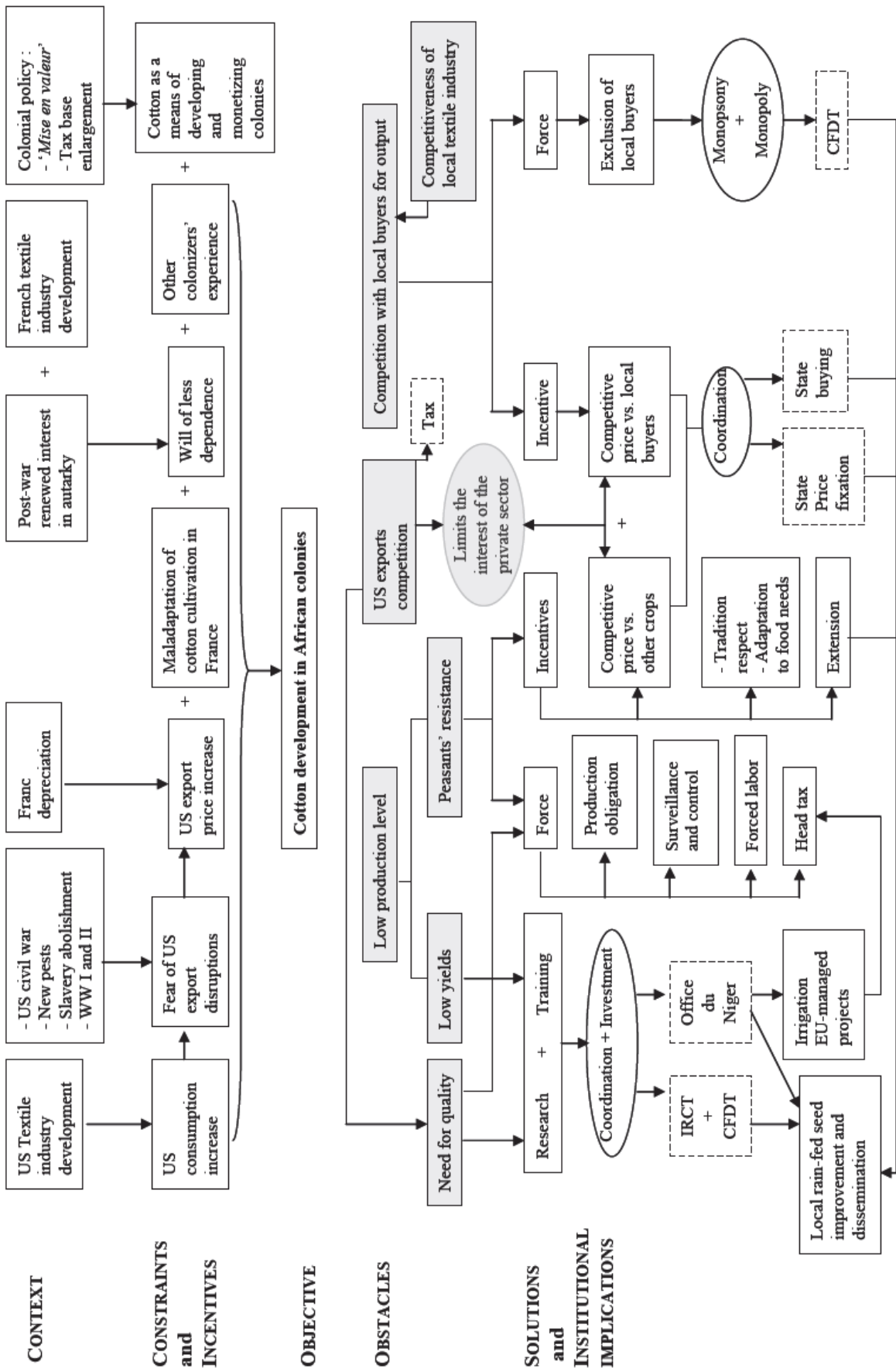
WORLD BANK. 2001. "Rural Decentralization in Burkina Faso." Findings No. 178.

ZOUNDI, J. S., K. HUSSEIN and L. HITIMANA. 2006. "Libéralisation de la filière coton et innovation agricole en Afrique de l'Ouest." *Cahier Agriculture*, 15 (1).

# Annexes

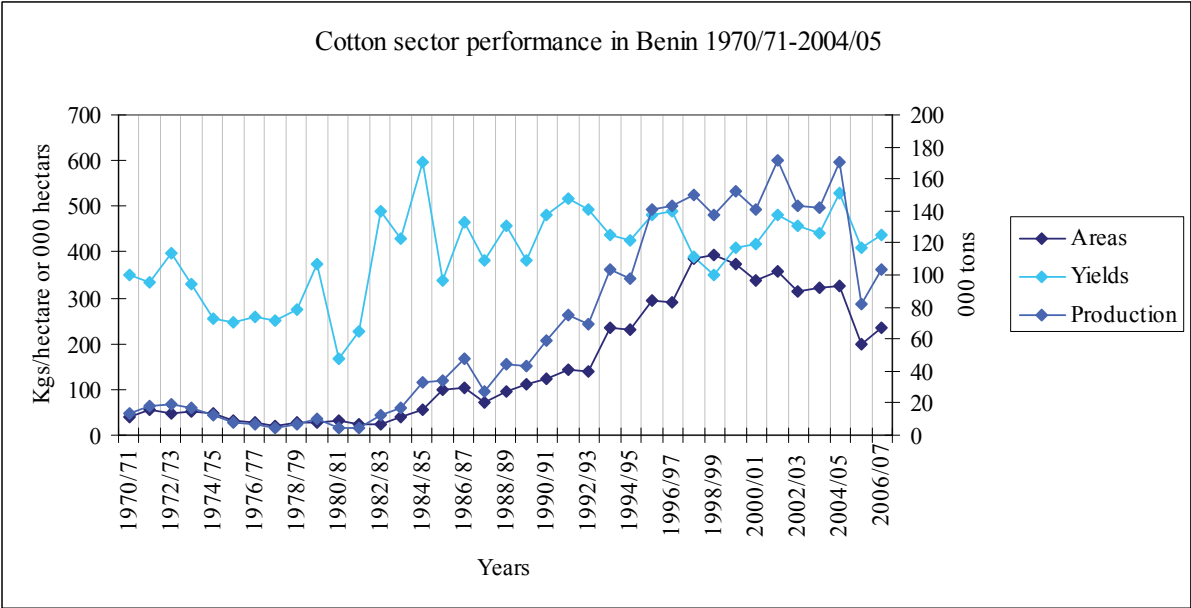
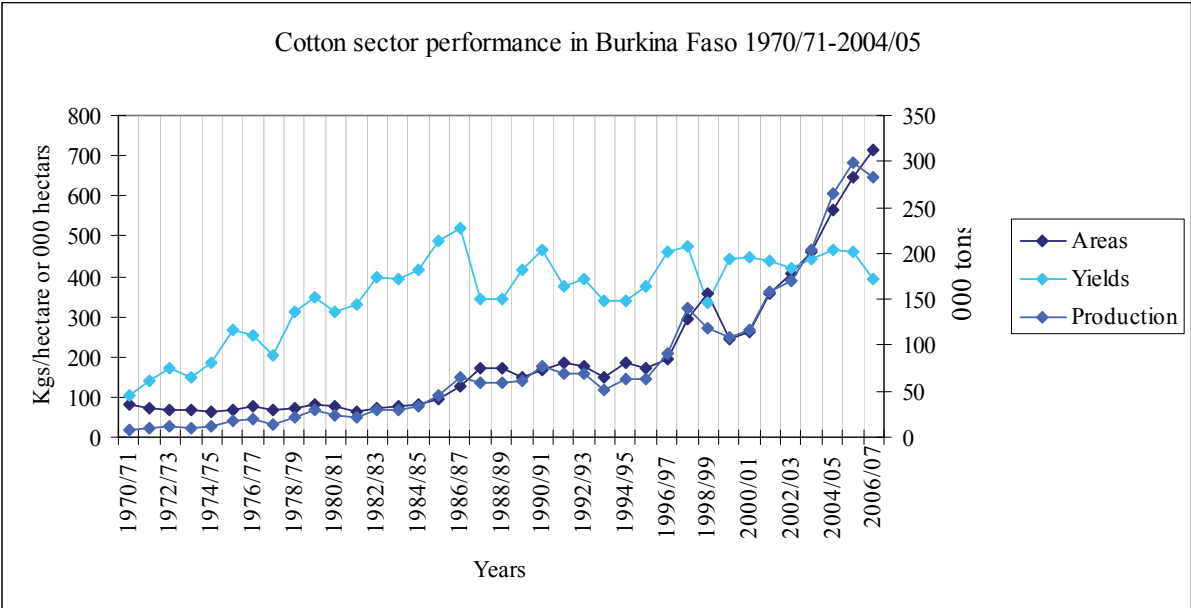
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Figure 1. Cotton development in French West and Central Africa, pre-WWII colonial era

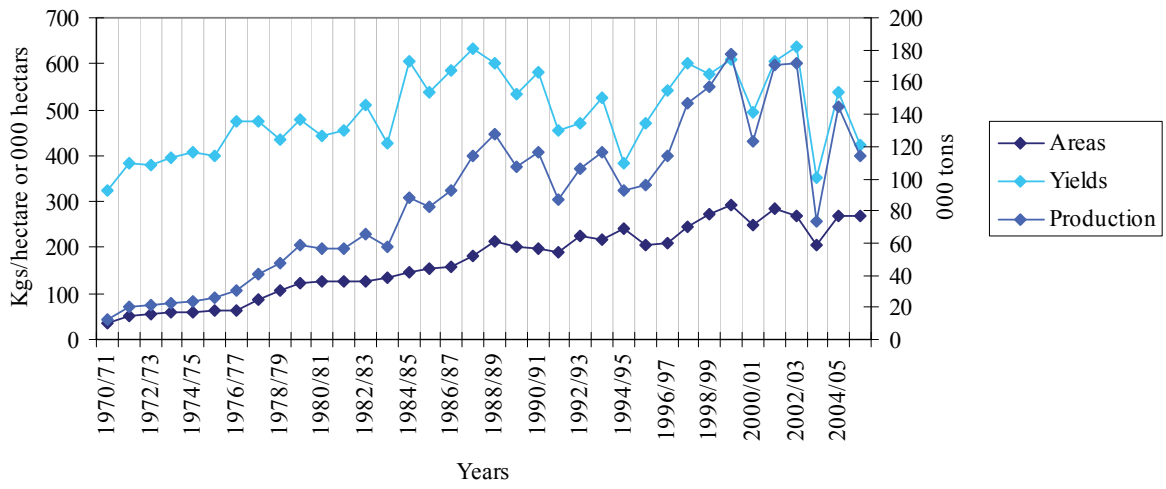


**Figure 2. Cotton sector performance in WCA, 1970/71 -2004/05**

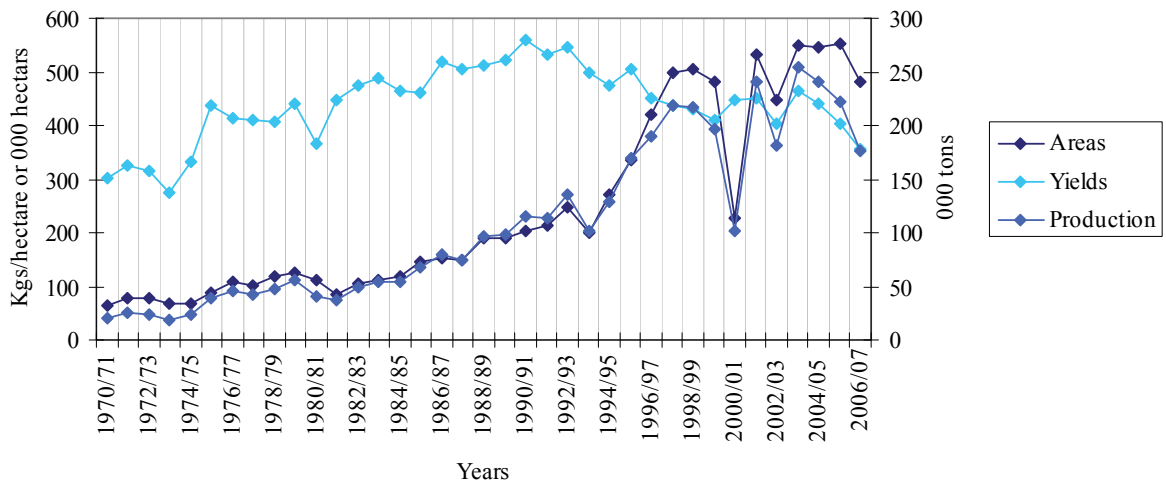
Source: authors' compilation with data from Baffes (2007)



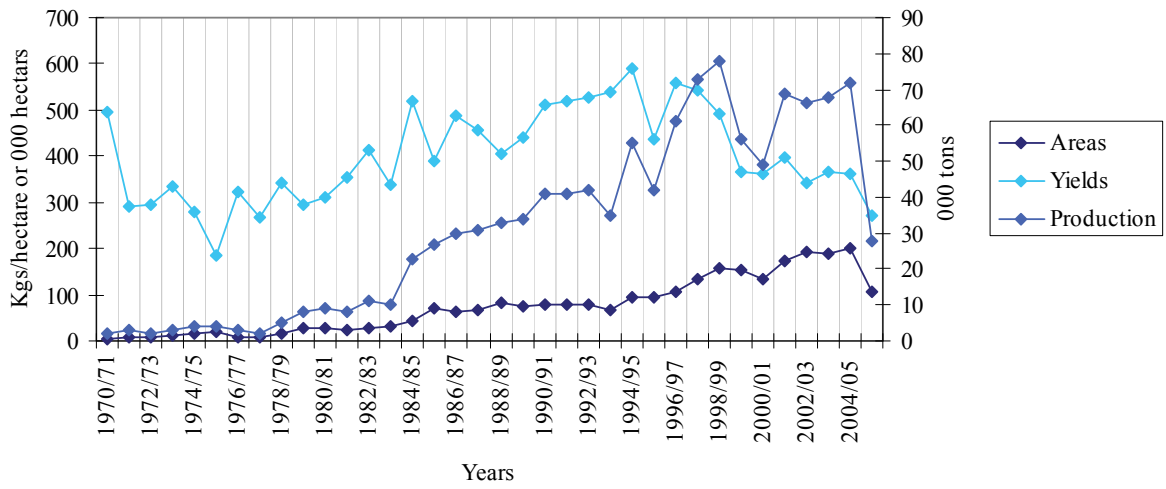
Cotton sector performance in the Ivory Coast 1970/71-2004/05



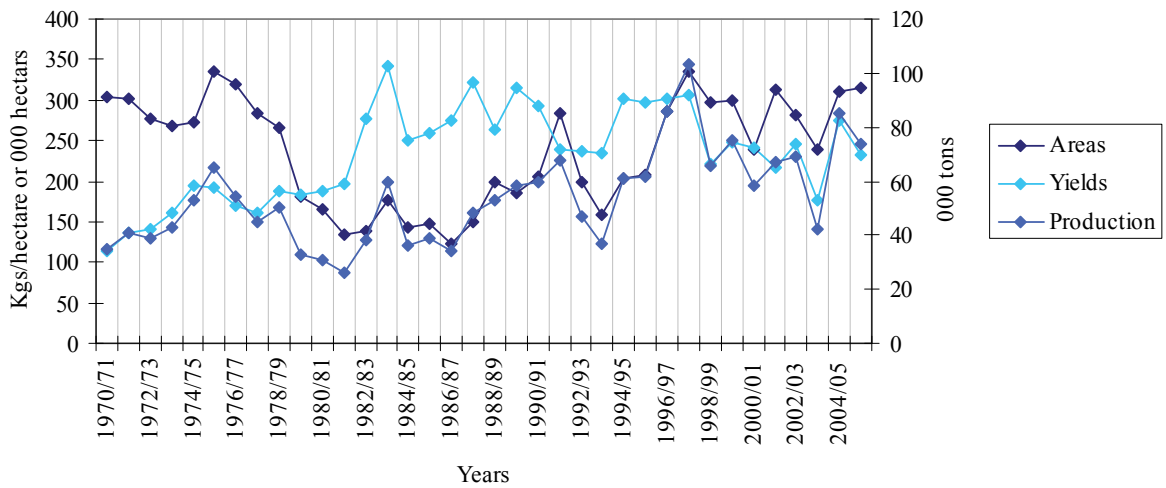
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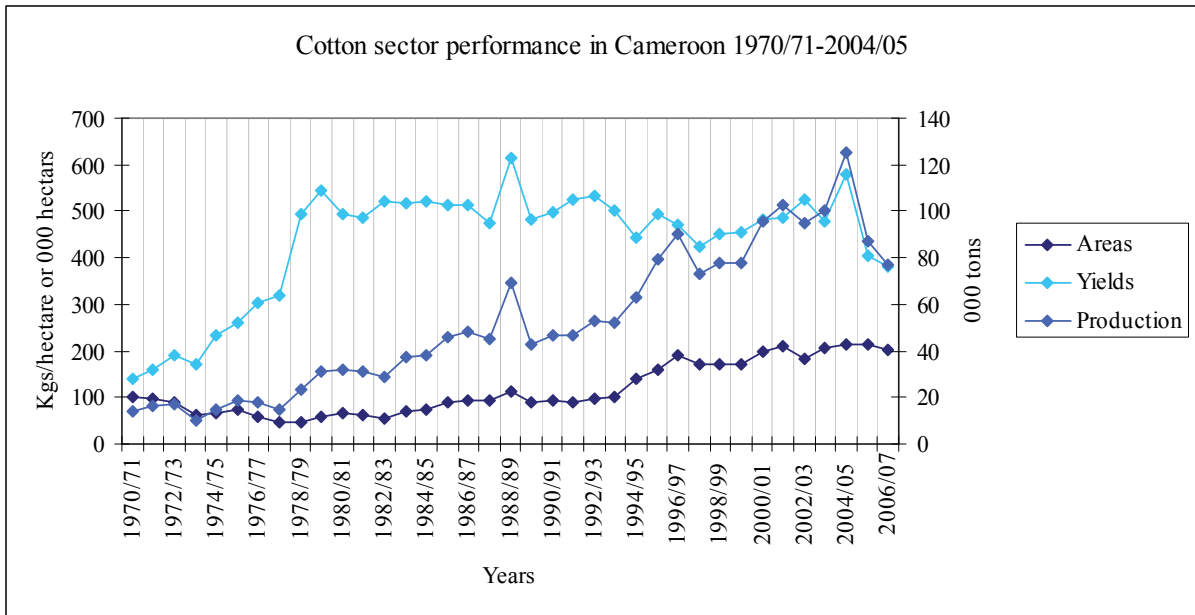


Cotton sector performance in Togo 1970/71-2004/05

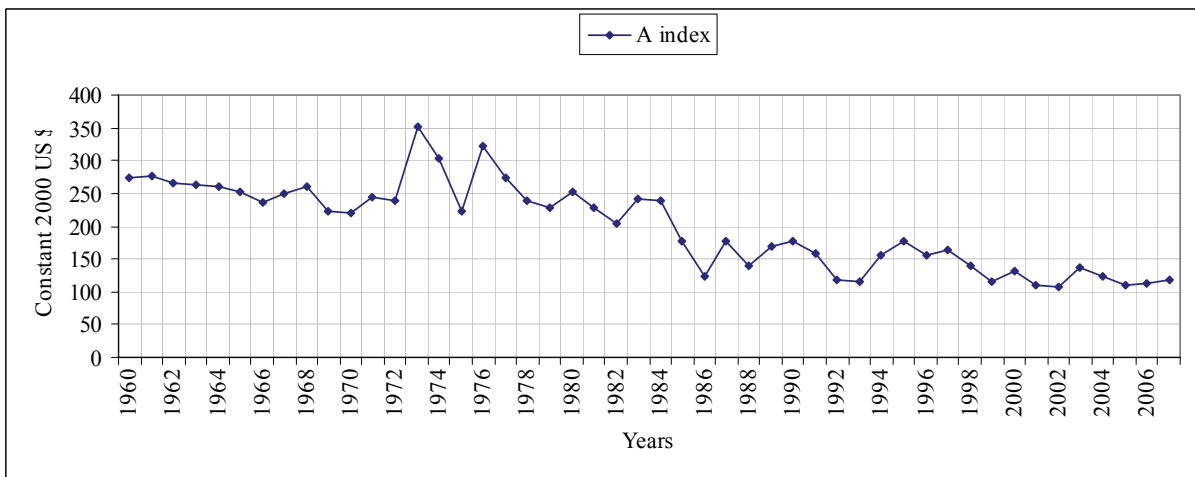


Cotton sector performance in Chad 1970/71-2004/05

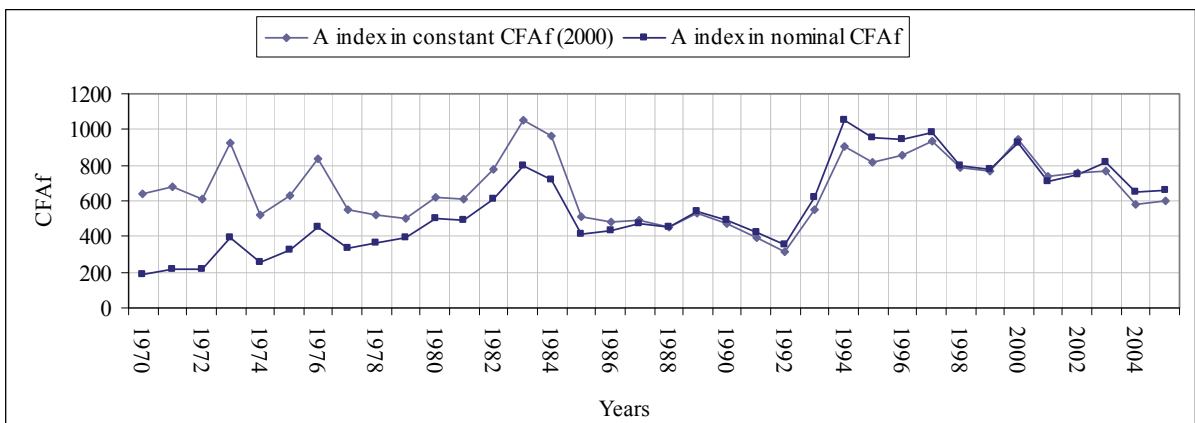




**Figure 3. Real cotton price in US \$, 1960-2007**

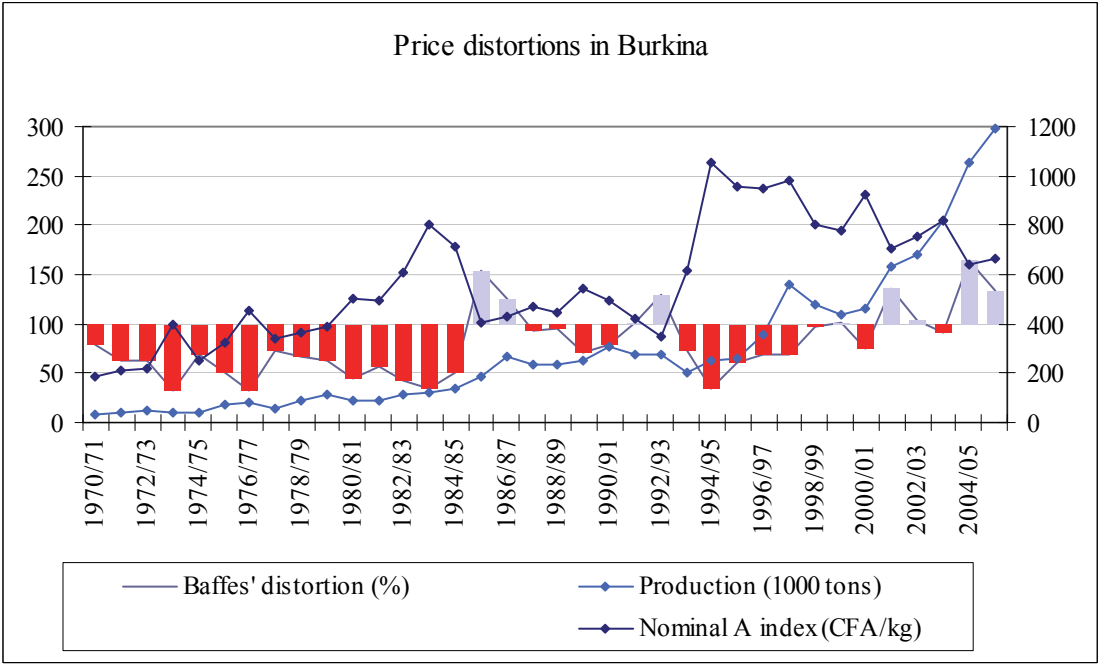
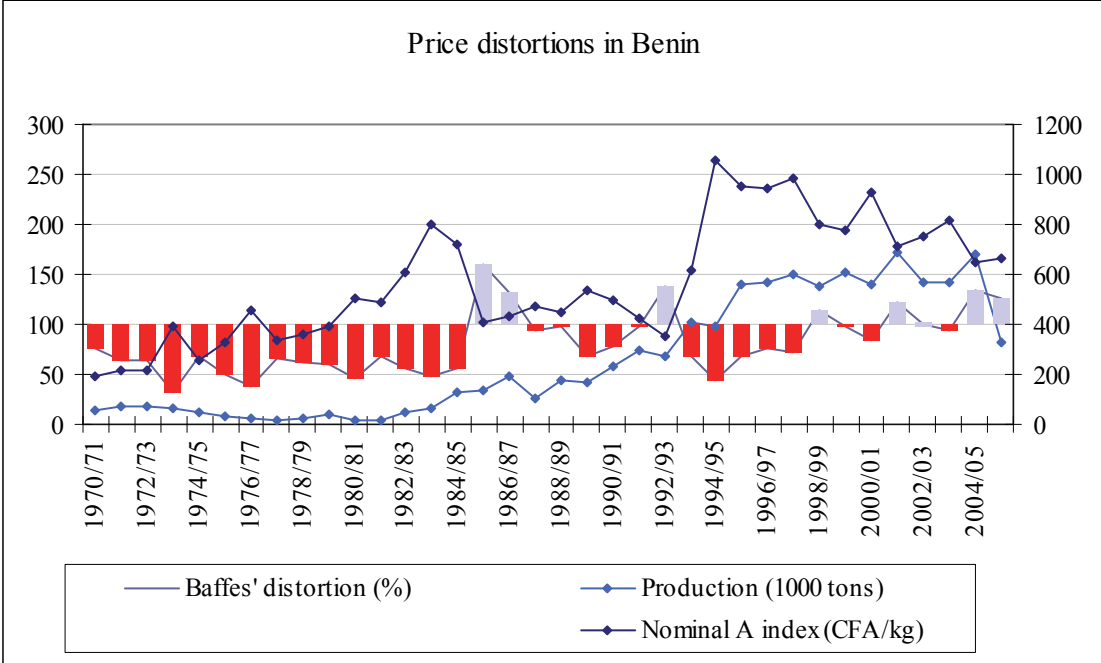


**Figure 4. Real and nominal cotton price in CFf, 1970-2005**

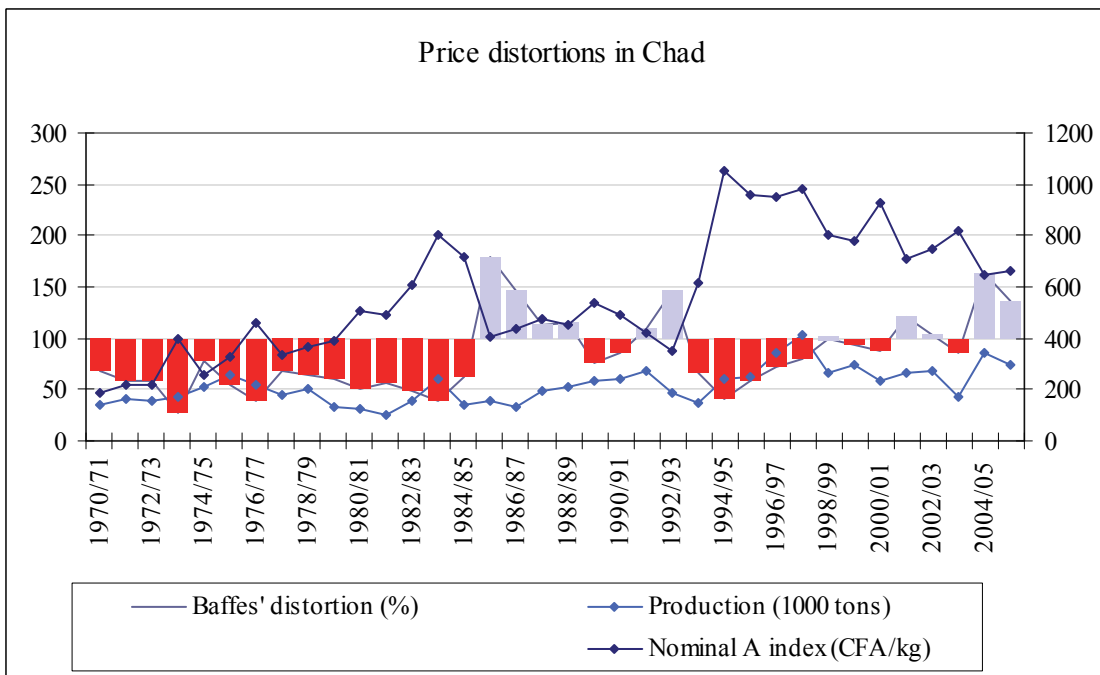
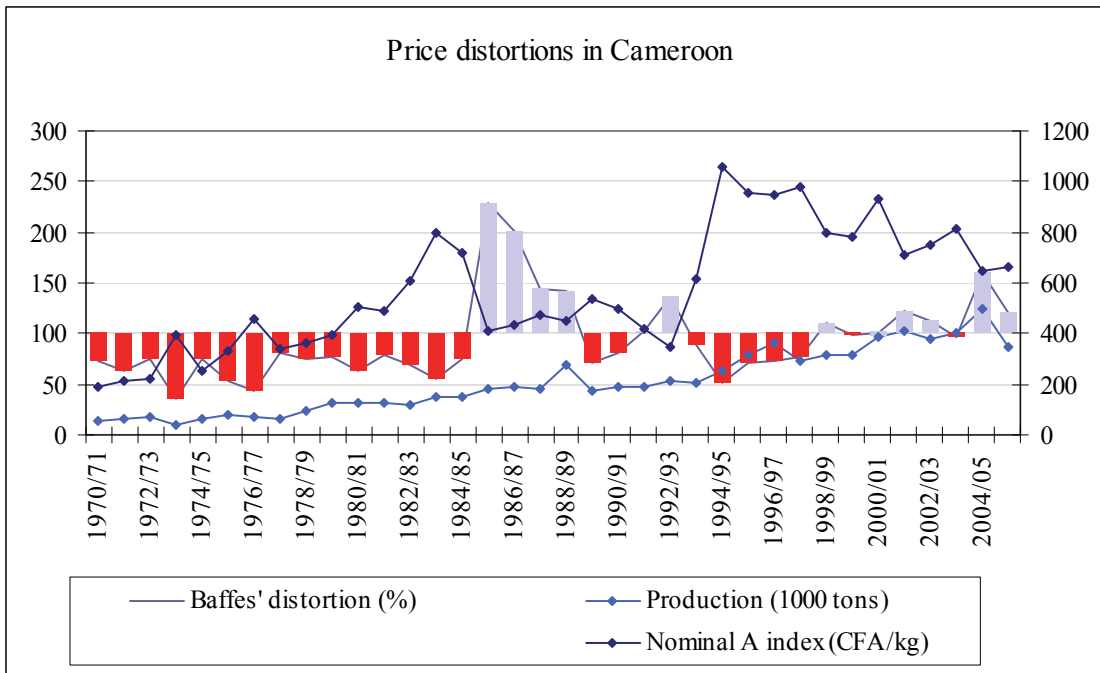


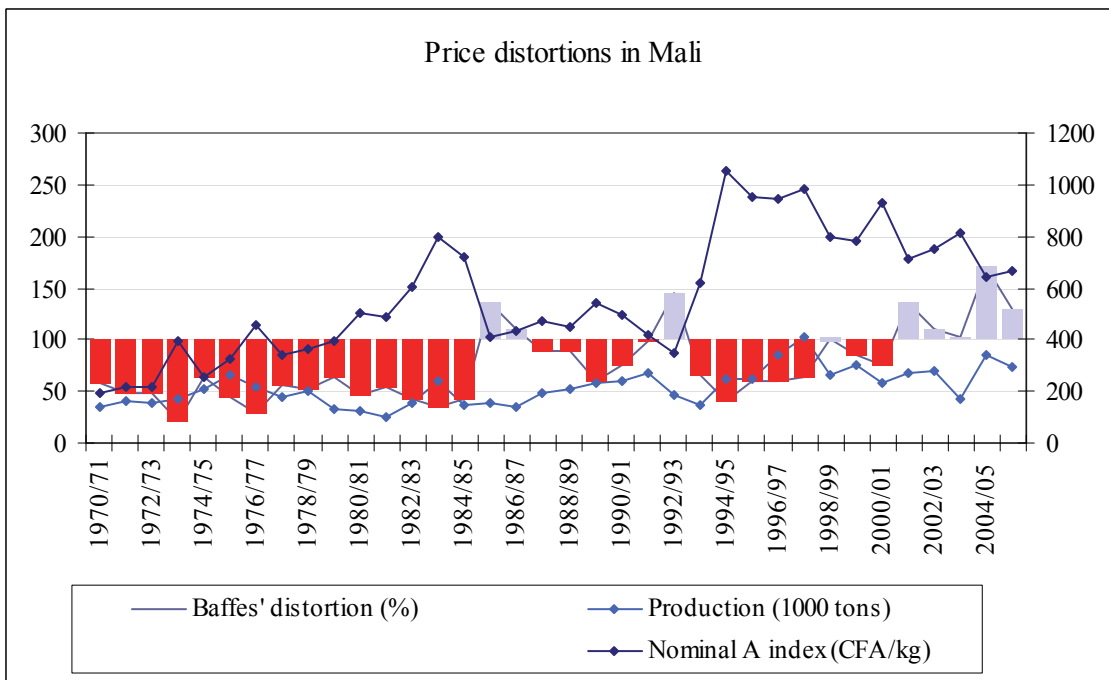
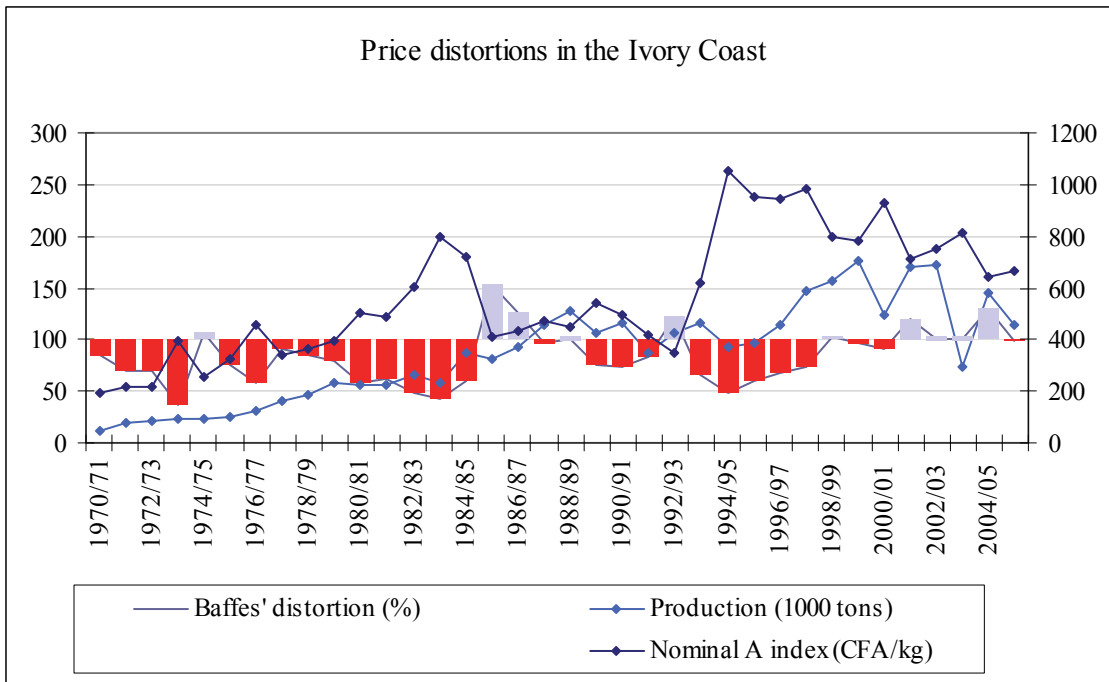
**Figure 5. Price distortions in WCA, 1970/71 -2004/05**

Source: authors' compilation with data and formulae from Baffes (2007)









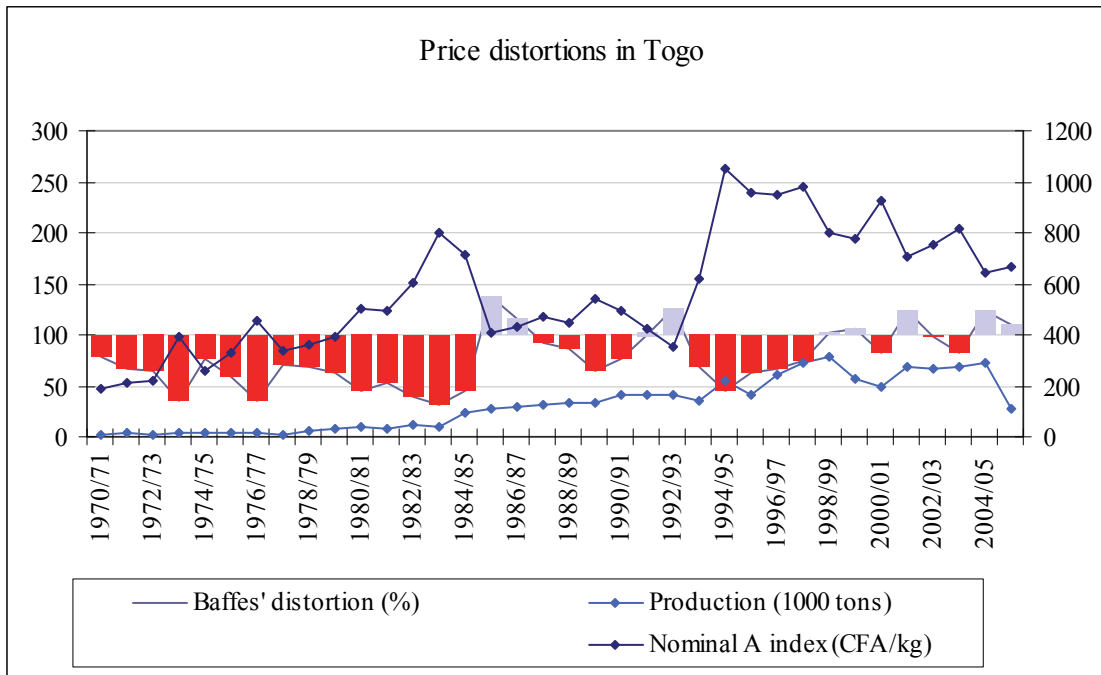
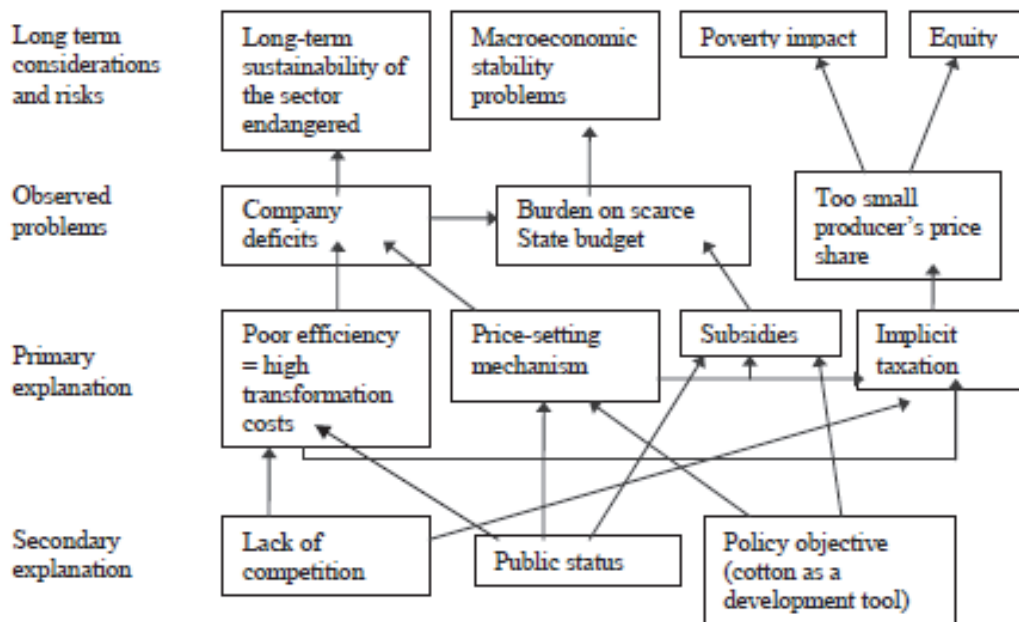
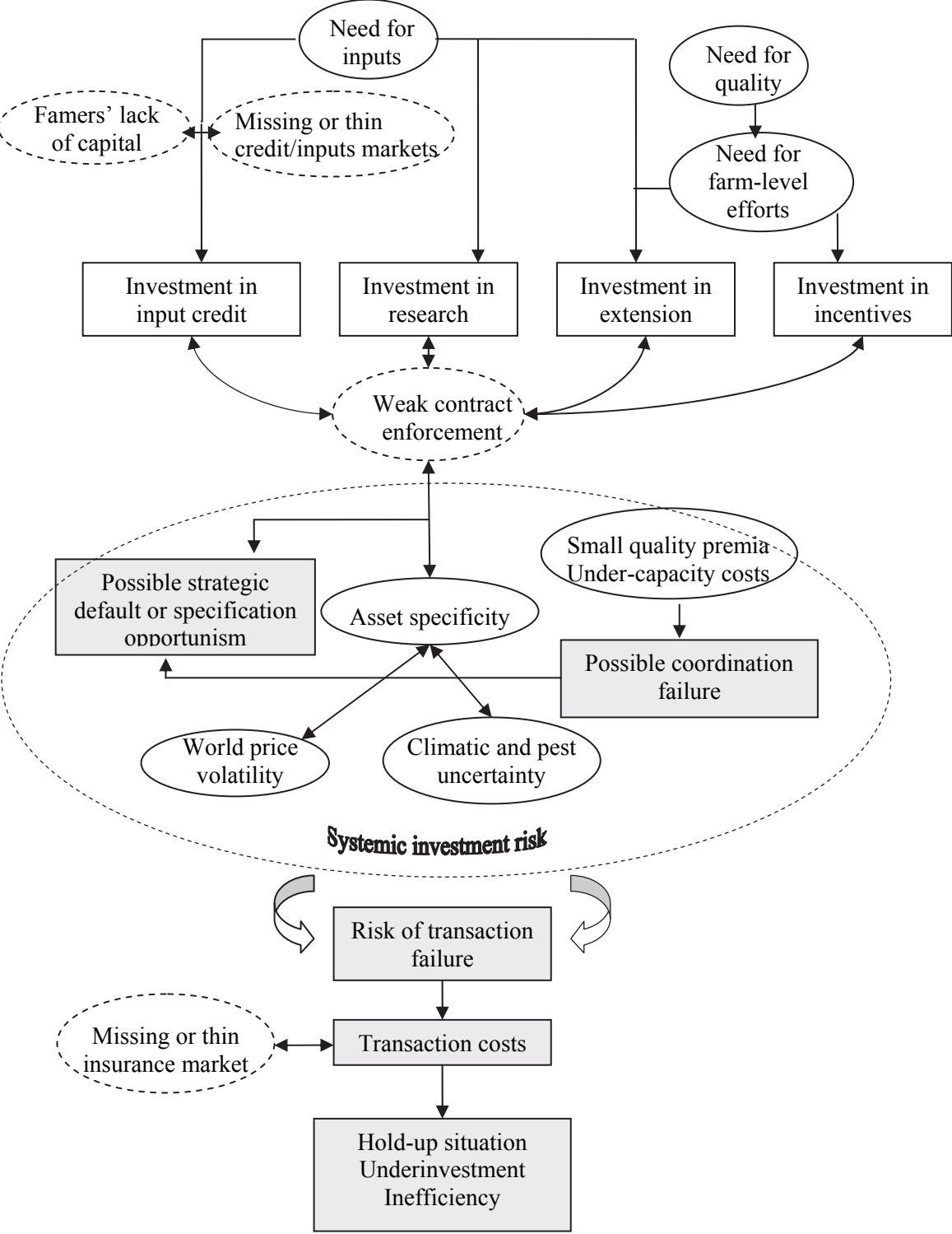


Figure 6. An illustration of orthodox reform rationale

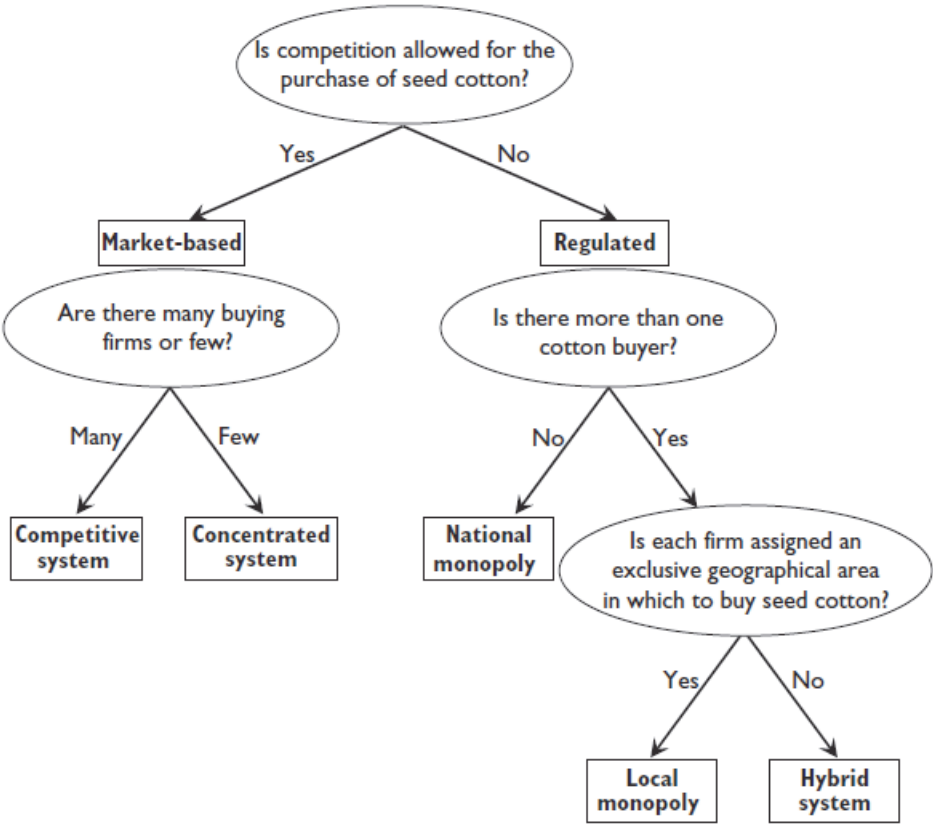


**Figure 7. Rationale for limiting competition in SSA cotton markets: A synthetic illustration of Poulton et al. (2004)**



- Dotted ovals denote LDC market environment characteristics; plain ovals denote cotton characteristics; plain rectangular boxes denote investment requirements and rectangular grey boxes picture possible problems in the absence of efficient market-based or State regulation.
- Identified institutional means to overcome specification opportunism, strategic default and coordination failure include vertical coordination, horizontal coordination (for the two latter), farmer collective action or government regulation.

Figure 8. Tschirley et al.'s Decision Tree for Cotton Sector Typology



Source: Tschirley et al. (2009)