SUB-SAHARAN AFRICAN COTTON POLICIES IN RETROSPECT

By

DELPEUCH, CLAIRE & LEBLOIS, ANTOINE

Contributed Paper presented at the Joint 3rd African Association of Agricultural Economists (AAAE) and 48th Agricultural Economists Association of South Africa (AEASA) Conference, Cape Town, South Africa, September 19-23, 2010.

SUB-SAHARAN AFRICAN COTTON POLICIES IN RETROSPECT

DRAFT (May, 2010) – Please do not quote

Comments and additional information are very welcome

CLAIRE DELPEUCH* & ANTOINE LEBLOIS†

* Groupe d'Economie Mondiale (GEM), Sciences Po Paris

† Centre International de Recherche sur l'Environnement et le Développement (CIRED)

Claire.Delpeuch@sciences-po.org

Leblois@centre-cired.fr

Paper prepared for presentation at the 3rd A.A.A.E & 48th A.E.A.S.A Conference, Cape Town, South Africa, 19-23 September 2010

Abstract

Using a series of market structure criteria, this paper gives a panorama of policies and reforms in all sub-saharan African cotton producing countries from the early 1960s to the present time. Reporting institutional changes precisely and in a consistent manner for all countries offers new opportunities for empirical comparative work. In addition, we identify trends in policy changes, which, to our knowledge, have not yet been described; in particular, we observe a recent but clear tendency towards re-regulation, which, interestingly, seems to transcend the traditional geographical divide.

1. INTRODUCTION

Cotton is a key crop in sub-saharan Africa (SSA): it is the primary source of foreign exchange for a number of countries, the primary cash-crop for millions of rural households and one of the only export products for which the continent's market share has increased over the past decades (Boughton et al., 2003; Baffes, 2007). Being grown mainly by smallholders, it is believed to play a key role for development and poverty reduction (Badiane et al., 2002; Moseley, 2008).

Since the late 1980s, Africa's 'white gold' as it is sometimes called has been at centre of a harsh debate on how best its production can be encouraged and, particularly, on the role governments should play in this process. Following recommendations by the World Bank (WB) and the International Monetary Fund (IMF), a series of reforms were undertaken in many countries starting in the mid 1990s. However, these reforms have not always yielded the expected results, so that the market structure question remains unsettled. As a result, the literature on cotton sector reforms has dramatically expanded over the past decade. While in the 1980s and 1990s it was prospective and consisted mainly of recommendations, numerous impact analyses have been performed over the past few years.

Reform processes have however been studied mainly on a case-by-case basis (notable exceptions being Goreux et al., 2002; Araujo-Bonjean et al., 2003; Tschirley et al., 2009 and 2010; Delpeuch et al., 2010), and concentrate on a small number of countries. Numerous studies look at the historically biggest producers in east and southern Africa (ESA): Mozambique, Uganda, Tanzania, Zambia and Zimbabwe.[1] In west and central Africa (WCA), the so-called 'Cotton-4' (Benin, Burkina Faso, Mali and Chad) have also attracted attention, even though studies remain more prospective or

[1] Among these studies, see in particular, Tschirley et al. (2009) for all countries and Brambilla and Porto (2008); Kwabe and Tschirley (2009) on Zambia; Dercon (1993); Gibbon (1999); Cooksey (2004a and 2004b); Baffes (2004); Larsen (2006); Poulton (2009) on Tanzania; Lundbæk (2002); Poulton and Maro (2007); Baffes (2004 and2009) on Uganda; Larsen (2002 and 2006)Poulton and Hanyani-Mlambo (2009) on Mozambique; Boughton et al. (2003) on Zimbabwe.

are indirectly linked with institutional changes.[2] By contrast, countries where production has declined over the last decade (as Nigeria, the Ivory Coast and Sudan) or smaller producers (as Kenya, Senegal, Mauritius or Togo) are rarely studied. Besides, while institutional and regulation changes are sometimes described in details, most of these papers aim primarily at evaluating the impact of these changes rather than characterising them.

This paper thus aims at giving a full panorama of policy choices and reforms in all SSA cotton producing countries from the early 1960s, that is, before the independence of many countries in the region to the present time. The objective is two-fold.

First, as there is considerable evidence that market structure and performance are highly correlated (Tschirley et al., 2009 and 2010; Delpeuch et al., 2010), expanding the information available to the largest possible array of countries and reporting key policy or institutional changes with precise time indications, and in a consistent manner for all countries, should offer new opportunities for empirical comparative work (Delpeuch and Leblois, forthcoming). Indeed, the fact that a large number of countries have shared common market characteristics but chosen reform options that differ in several dimensions offers a particularly interesting set-up for examining variations in the supply responses to liberalisation and identifying the reasons for divergence in performance.

Second, we attempt to identify trends in policy changes, which we believe have not yet been described in the literature. In particular, we observe a recent but clear tendency towards re-regulation in most countries where liberalisation was introduced to various degrees, which, interestingly, seems to transcend the traditional geographical divide.

The paper is organised as follows. In section 2 we briefly outline the criteria chosen to characterise cotton markets and reforms. In section 3, we identify common trends in cotton sector organisation pre- and post-reform. Section 4 provides a concise description of cotton sector evolution in each SSA cotton-producing country for which information was found; as well as a synthetic table reporting a number of market structure indicators per country, through time. We conclude in the last section.

[2] Among these studies, see in particular: Araujo-Bonjean et al. (2003); Goreux (2003); Bourdet (2004); Baffes (2007) *for reviews of reforms in WCA*; Badiane (2004); Baghdadli et al. (2009) *for recommendations*; Kaminsky (2009); Savadogot and Mangenot (forthcoming) *on Burkina*; WB (2004, 2009) *on Benin*; WB (2009) *on Cameroon*; Tefft (2003); Vitale and Sanders (2007) *on Mali*, WB (2002, 2003) *on Chad* and Makdissis and Woodon (2004) *on the Ivory Coast*.

2. Characterising cotton sectors

While it is beyond the scope of this paper to enter into the details of how market structure influences the performance of African cotton sectors, we have identified a number of questions, which we use as guidelines to characterise markets and describe their evolution. All of these criteria relate to links between market structure and performance that were identified in the literature.[3] They are often closely related to the SSA context: because production requires costly inputs and because farmers face strong cash constraints, while credit markets are almost inexistent in rural areas, production occurs almost exclusively through interlinked transactions; contract enforcement is weak and exogenous risks significant (climate, pests).

The work by Tshirley et al. (2009 and 2010) was particularly helpful in the identification of some of these questions as it rests on a typology of cotton markets against which a number of performance indicators are examined. In this paper, however, we have a more detailed approach of market structure as we investigate each of the different market characteristics around which their typology was built. For instance, the nature of ownership, the degree of competition and the pricing system are all considered individually. For each country, we attempt to answer the following questions.

First, is the sector competitive? More precisely, are seed cotton purchase and ginning characterised by 'strong competition' (with several companies competing on prices), limited competition (with two or three companies enjoying a large combined market share and exerting price leadership), regulation (with several firms active but no competition because of the existence of legal regional monopsonies or administrative allocation of supply among them) or no competition at all? This first criterion is believed to influence performance through (i) its impact on the share of the world price received by farmers, which in turn impacts the area under cultivation and the amount of effort put in production; (ii) the extent to which it allows for side-selling and thus the possible provision of inputs and extension on credit, which in turn influence yields and areas under cultivation (Delpeuch et al., 2010; Kranton and Swamy, 2008; Poulton et al., 2004) and (iii) companies' ability to coordinate on quality issues as, for example, avoiding seed varieties mixing in different regions or enforcing strong quality requirements (Larsen 2006; Poulton et al. 2004).

Second, are producer prices determined by the market, is a price indication provided by the government, or are prices fixed pan-territorially or pan-seasonally? Fixed pan-territorial and pan-

[3] Tschirley et al. (2009 and 2010) as well as the numerous country-case studies referenced in footnotes 1 and 2 all provide empirical observation of some of these links. In what follows, we report only theoretical references that are specific to the different issues reviewed.

seasonal prices have been heralded as a risk mitigation and special redistribution instrument Araujo Bonjean et al., 2003), but discourage production from the more productive farmers, and conversely encourage production by less efficient farmers. Besides, price fixation by the government most often results in taxation or, eventually, in unsustainable subsidies (Baffes, 2009).

Third, is the private sector allowed to enter cotton-related activities (purchasing and ginning, input provision, transport)? In particular, are farmers collectively shareholders of some of the ginning companies or are they involved in sector management? While this issue has been little examined in the theoretical literature, there are indications that the implication of producer organisations (POs) in sector management might influence the incentives faced by farmers as well as a more general level of trust within the sector, which could also have important implications on sector performance. Several empirical studies indeed recognise the potential importance of such institutional arrangements. For example, Tschirley et al. (2009) note how prices paid to growers by WCA monopolies are significantly influenced by political factors and the strength of POs.

Fourth, are extension services provided and inputs distributed on credit? Are they subsidised? Does the government finance research, or public services (such as road maintenance, or other infrastructures)?

Finally, we also provide information on whether production is performed by smallholders or big farms and whether it is rain-fed or irrigated

We report the date of effective changes, rather than the date of the official decisions underlying these changes, when they differ and the former is known.

3. A SHORT-HISTORY OF COTTON POLICIES IN SSA

In this section, we identify common trends in cotton sector organisation history pre- and post-reform. We start by focusing on two sub-regions where market organisation used to be relatively homogeneous and where reform experiences comprised common features. We then look at the most recent changes in market regulation across SSA and identify cross-regional trends.

3.1 The origins

Cotton has been cultivated and woven in Africa for centuries. Yet, its development as a cash-crop mainly dates from colonial efforts to promote its production starting at the end of the 19th century. Textile had become a key sector for European Empires' industrialising economies; widespread cotton promotion across SSA thus emerged as an answer to their procurement problems, the anxiety of European governments regarding their trade balances and colonial administrations' search for financial autonomy and support for continued colonisation (Fok, 1993; Isaacman and Roberts, 1995; Basset, 2001; Levrat, 2008).

In former French African colonies, most cotton sectors were developed under the auspices of the colonial administration and the public company *Compagnie française pour le développement des fibres textiles* (CFDT), which was created in 1949. While cotton promotion was largely based on various forms of coercion up to early 1940s (Bassett, 2001), the post-world war II administration implemented a series of incentives and institutional innovations which led to the establishment of regulated and integrated supply chains (known in French as '*filières intégrées*'). Cotton was produced by smallholders, to whom the CFDT, and later a national parastatal company, lent inputs on credit and provided extension services. The same parastatal has an obligation to buy the entire crop at a pan-territorial and pan-seasonal price announced before sowing, but in exchange enjoyed a monopoly position on seed cotton ginning and cotton lint exporting. Typically, the same parastatal was also in charge of seed cotton and cotton lint transport as well as taking care of relevant infrastructures. Research was performed by national institutes, in co-operation with French research centres.

This system remained very similar after the independences (and in some countries, such as Mali or Cameroon, it only changed at the margin): parastatals were nationalised but the involvement of the CFDT (renamed Dagris in 2000 and privatised in 2007 under the name of Géocoton) continued; it retained shares in the new national companies and provided them with technical assistance on a long-term contract basis. National parastatals grew significantly in the 1980s, thanks, notably, to foreign public assistance. They also provided increasingly various public services in remote areas, such as building schools and dispensaries.

In most British African colonies, production was introduced under the auspices of the British Cotton Grower Association (BCGA), created in 1902. In some countries, production was dominated by big settlers' farms until the 1950s, when smallholder production was also encouraged. In others, as in WCA, production was always dominated by smallholders, notably because cotton production was made de facto mandatory either through direct repression, or through the introduction of poll taxes, which could be paid only by producing cotton. Cotton boards were offered monopoly rights on cotton exports. They were sometimes in charge of inputs distribution but this typically was a more limited function than that performed by their WCA counterparts. This might have been due to better agro-climatic conditions or to the fact that cotton never had the same development-vector role as in WCA. Besides, contrarily to parastatals in WCA, boards were rarely directly in charge of seed cotton purchase or ginning: they co-existed with private ginneries and numerous buyers who would buy seed cotton at farm gate and then sell it to board and/or private ginneries. Research,, extension, seed multiplication and quality control were performed by the boards or public bodies, with varying public financial commitments. Boards, however, were never involved in rural development activities. After the independences, most boards were nationalised and government intervention increased, but markets evolved along more diverse lines than in WCA. In some countries, co-operatives were created to perform ginning and primary purchasing (for example in Tanzania and Uganda), while in others, boards took over almost the functions as in WCA (for example in Sudan, Zambia, and Zimbabwe). In the former case, the role of the Board would be bound to various degrees of regulation and exporting. In the latter case, the boards ginned, introduced or perpetuated input-credit schemes and fixed prices. However, seed cotton purchasing continued to be operated through private agents or cooperatives, contrarily to what happened in WCA where parastatals agents proceeded to purchasing. Besides, in ESA, domestic textile industries were much more protected than in WCA. As a result, boards often sold a significant share of cotton lint at subsidised prices to the local textile industry. A last key difference with WCA is that both BCGA and the British research body eventually stopped operating: the former, right after the independences and the latter in 1974, date until when it continued to provide technical assistance to national companies on a contract basis.

In countries which were never British or French colonies, situations have been even more diverse; they will be treated in the following section and compared to the above characteristics.

3.2 Diverse reform experiences

Reforms have been promoted by the WB and the IMF as of the late 1980s, and more pressingly since the early 1990s. The key reason behind these recommendations was the fact that price setting mechanisms distorted production incentives by disconnecting producer prices from world prices. While, initially, the concern was that producers were being taxed, it was reversed in recent years, in WCA, as producers have been subsidised to an extent that is generally agreed to be unsustainable from a budgetary point of view (Baffes, 2009). What is more, parastatal companies and boards were found to be inefficient because of excessive ginning, transport and storage costs, poor sales strategies and risk management tools, a lack of investment in technology (Baffes, 2007) and political interference which sometimes led to various forms of mismanagement, fraud or embezzlement (Tschirley et al. 2009). In some countries, this led to significant decreases in production in the post-independence era. Besides, guaranteed pan-territorial pricing was considered to be ineffective in promoting rural development (Baghdadli et al., 2007). In the late 1980s and early 1990s, the observation of stagnating, or even declining, cotton yields in WCA – compared to increasing yields worldwide, and a very significant yield improvement in the 1970s and 1980s – added to the concerns over the performance of the sector.

As a result, privatisation and liberalisation of all the cotton sub-sectors have been advocated with the objective of strengthening their competitiveness, ensuring their financial sustainability and allowing a fair sharing of the profits between producers and ginners.

While policy recommendations to all SSA countries have been similar in their content, they have been prompter and more insistent in ESA (Bourdet, 2004). In the latter region, orthodox reforms have often been implemented in the mid-1990s, at times of peak world prices. The degree of competition achieved has widely varied. In some countries, ginning over-capacity created a 'scramble for cotton' (Larsen, 2003) between ginners wishing to minimise unit costs and fulfil forward sales, which allow commanding better prices on the world market. Over-capacity and thus competition is believed to have been particularly strong in Tanzania and Uganda. In other countries, entry and competition remained much more limited, at least for some time. In Zambia and Zimbabwe, the market remained highly concentrated for several years after the reform with the two major firms procuring at least 90 percent of total cotton production (Tschirley et al., 2009; Brambilla and Porto, 2008). The reasons identified to explain such divergence range from different policy options to enduring effects of the pre-reform sector organisation model (Tschirley et al., 2010). What is more, the level of competition is also highly heterogeneous within countries (Larsen, 2003) and it has been achieved only progressively. According to Gibbon (1999), in 1998 Tanzania, four years after liberalisation, cooperative unions still ginned over 40 percent of total output.

In WCA, no orthodox reforms have been implemented but heterodox reforms have led to the introduction of some privatisation in ginning and to a greater extent in related sub-sectors such as input distribution of transport. Following WB and IMF recommendations, however, most parastatals have been restructured; activities, which related to cotton production only indirectly, have been transferred to government bodies or to the private sector. Competition in ginning has also been introduced to a very limited degree in a few countries, through the establishment of regional monopsonies (in Burkina Faso and the Ivory Coast), or through the introduction of strong regulations (Benin). New pricing mechanisms, which establish a link between producer prices and the world price, have been adopted in several countries yet they are not enforced, to the benefit of farmers, despite the increasingly tense financial situations of most ginning companies. Thus, everywhere, prices are still administratively fixed, even though sector stakeholders increasingly take part in the decision-making process. An interesting feature of reforms in WCA is indeed that they have often taken place jointly with the empowerment POs and other professional associations (PAs) of, for example, ginners, input distributors and transporters. The creation of interprofessional committees (IPCs) has allowed these PAs to participate increasingly in sector regulation.

3.3 From de-regulation to re-regulation: the new patterns of cotton policies throughout SSA

In this last section we would like to highlight the emergence of what could be seen as a new paradigm towards partial re-regulation. Our observations are three-fold. First, several studies cast doubt on the effective scope of reforms in ESA, considering that it was over-estimated. Second, in many of the countries where liberalisation had taken place more thoroughly, markets are being re-regulated and, even, re-nationalised in some cases. Interestingly, our first observation is not directly linked to this second observation, since the studies aforementioned often date from before the re-regulation episodes subsequently identified. The combination of these two observations however contributes to challenging seriously the idea that reforms would have led to the creation of truly competitive cotton sectors. Third, the recommendations formulated to countries where reforms have not been adopted or implemented yet are increasingly cautious. Again, this last point is indirectly related to the first, as the economists who cast doubt on the scope of reforms generally criticise the lack of thorough reforms. However, the observation of the limited scope of reforms achieved in 'reforming countries' might have participated in the softening of reform recommendations, on the grounds of realism. We examine and attempt to explain each of these points below.

The (true) scope of reforms

According to some analysts, even the most competitive markets seem to be far from perfectly competitive – especially when the scope of reforms is put into perspective with the more general intuitional and political context of the countries examined. Some authors indeed question the ability of governments to effectively implement the desired policies (and thus to encourage true competition), in the face of the 'patrimonial' nature of power in African countries (Van de Walle, 1989).[4] In this perspective, Cooksey (2004a and 2004b) provides a detailed analysis of different export crop reforms in Tanzania that goes against the common portray of this country as one where competition was the most strongly promoted. 'The counter-strategy pursued by incumbent elites to ward off the threat posed by the "private sector"' would result in anti-competition aspirations, opposition to externally-driven reforms and the re-introduction of various interventionist policies, laws and practices. Examples of administrative barriers to entry are given in the following section.

[4] What is more, according to Hibou (1998), "the instability and arbitrary nature of reforms [due to their adoption under the pressure of the WB or the IMF and not by domestic choice] allows African states to present a façade that conforms to the exigencies of the [World] Bank" but, "behind this façade, non orthodox practices abound."

Similarly, the privatisation process in Benin is said to have led to the creation of a quasi-monopsony, competition having been ward off by political intervention (Gergely, 2009; Babin, 2009).

Recent re-regulations

Faced with various problems observed post-reform (such as declining production, declining quality or contract enforcement issues and input provision schemes collapsing), many SSA governments are increasingly intervening in cotton sector management. We do not intend to comment on these problems or to enter into the causality debate on whether reforms really are their cause. However, we find it interesting to describe these new measures, whatever the validity of their motivation.

Re-regulation has been of two types. In some countries, they have been introduced by the government either directly, through investments (some companies are even being completely re-nationalised), or through the introduction new regulations, which de facto reduce the degree of competition and sometimes even result in almost complete re-integration around one single company. In others countries, mostly in moderately competitive markets, regulations have been initiated by private actors. In Zambia, buyers have attempted to prohibit side-selling by coordinating among themselves (Brambilla and Porto, 2008). However, when the degree of competition increased after a first post-reform phase during which it had remained very limited, demands for legal regulation also abounded. In Zimbabwe, input-provision has become obligatory while entry into ginning has been made administratively more complicated [Reference to be added].

An apparent difficulty to re-regulate is worth noting: institutional bodies are being created to be abandoned shortly after and, fifteen years after reforms were initiated, situations seem far from stable.

Changing policy prescriptions

In recent years, the mainstream policy recommendations (notably that conveyed in WB publications) seems to have changed: privatisation is seen as insufficient (even undesirable under certain conditions), and competition is increasingly seen as having to be controlled in certain market contexts. While Baffes (2005) advocated further privatisation of the parastatals as well as further liberalisation of all sub-sectors in 2005, Tschirley et al. (2009 and 2010) conclude that no market sector type seems to have performed so well that it can be used as a reference for other countries. In brief, recommendations are becoming more nuanced and context-specific. One new element in these recommendations is the increasingly important role devoted to POs in the reform process.

4. PANORAMA OF COTTON POLICIES AND REFORMS ACROSS SSA

In this section, we attempt to provide a brief description of cotton sector organisation and reforms for all countries, which produced, over 1500 tons, on average between 1961 and 2009, according to Food and Agricultural Organisation (FAO) data (Faostat). This information is then summarised in a number of indicators which are compiled in a synthetic table presented in the annex. [*Unfortunately, at this point, we are still looking for information regarding some of these countries.*]

Angola

[Information remains to be found]

Benin

The CFDT began operating in Benin in 1952 following the traditional *filière* model. The organisation or the sector was not modified with independence in 1960: the CFDT continued operating until 1972. Under the Marxist regime, however, French companies withdrew and national parastatals were created. Several companies existed successively; input provision and extension, and ginning and export sometimes becoming the responsibility of different companies until the Sonapra was created in 1984.[5] It took over all functions, except for extension and research, which remained the responsibility of governmental bodies (Gergely, 2009a).

With the end of the Marxist regime in the late 1980s, a series of structural adjustments were initiated; Benin was the first WCA country to reform its cotton sector. It is also the only ex-CFDT country where the single channel relationship between producers and ginners has been abandoned. The institutional process has been particularly complex, with the creation and dissolution of different regulating bodies. It began with the progressive privatisation of different sub-sectors. In 1992, private input providers were allowed to enter input supply. Their market share increased relatively rapidly and, by 2000, Sonapra had completely exited input supply. Seed cotton transport was also privatised in 1992. In 1995, three private ginneries began operating and five new ginneries had entered the market by 1998.

Competition, however, remained strictly constrained by strong government regulation. The Sonapra remained responsible for input storage, distribution and credit recovery (tenders being managed by the government), and retained its monopsony position on seed cotton purchasing until 2000. Since then, firms are allocated seed cotton purchasing quotas. Regulation has been officially

[5] Sonapra is the only parastatal companies taking over responsibilities from the in CFDT in which the latter has not been a major shareholder.

transferred to different IPCs, whose names and responsibilities have changed several times. However, political interference is said to remain very important and financial support is frequent (Gergely 2009a; Babin, 2009).

With the privatisation of the Sonapra in late 2008, which was then renamed Sodeco, the sector has almost turned into an integrated *filière* again as the same group is said to be the main shareholder in both the ginning and the input sectors (Gergely, 2009a). It is unclear how much the government remains in the Sonapra's capital.[6]

Pan-territorial pricing for cotton and inputs has never been challenged, but, since 2001, prices are negotiated within the IPC to some extent.

Burkina Faso (BF)

The French colonial administration began promoting cotton production in BF in the 1920s. As elsewhere in the region, the sector was organised around a parastatal company under government regulation: the CFDT remained in operation until 1979 when it was replaced by a national company, the Sofitex, in which the former retained a 35 percent share. A reform process was initiated in the late 1990s, with the idea of allowing the private sector to enter the market while maintaining restrictions to competition to avoid side-selling, and limiting state transfers.

Privatisation began in 1999, when the government sold 30 percent of its shares in Sofitex to the main PO. An IPC, in which farmers have a voting majority, was simultaneously created to coordinate sector regulation. The PO also became responsible for extension (which is outsourced), input credit management (through joint liability mechanisms) and seed cotton purchasing organisation (Kaminski et al., 2009).

The transport sub-sector was privatised in 2003 (Kaminsly et al., 2009). The same year, the gins in the eastern and central producing regions, which account for about a fifth of the country's ginning capacity, were sold to two private companies, in which the PO also bought 30 percent. The two companies joined the IPC and collective management was perpetuated. The pricing system has been officially reformed in 2008, when a formula was adopted to link it to the world price. However, it seems to be very loosely applied to the benefit of farmers [Reference to be added]. The level of competition remains extremely limited, all the more that, insiders speak about collusion among input suppliers and cotton companies, Basset (2008). The level of privatisation even regressed in 2008, when the Sofitex's private shareholders refused to engage in the needed recapitalisation, which led

[6] According to Gergely (2009), it was decided in 2008 that the government would retain only 35 percent of share by 2009, but we have not found a confirmation of this information.

the government to increase its share to over 65% percent. The government has also recently began to subsidize input provision again.

Burundi

[Information remains to be found]

Botswana

[Information remains to be found]

Cameroon

The French colonial administration began promoting cotton production in Cameroon in the 1920s. Sector organisation followed the *filière* model. Over a decade after independence, in 1974, the CFDT was replaced with a national company, the Sodecoton (in which the former retained a 30% share). The Sodecoton took over all activities from the CFDT, under strong government control, except for lint exporting, which continues to be operated by Copaco, a subsidiary of CFDT/Dagris/Geocoton benefiting from a monopoly situation (Gergely, 2009b).

The only modification to sector organisation has been the creation of an IPC and the progressive involvement of the PO in sector management, including price setting and input distribution as well as extension delivery since 2000 (Kaminsky, 2009).

The Sodecoton (and previously Cotonchad) the only ginning companies in WCA which also transforms cotton seeds into oil.

Chad

Cotton was introduced as a commercial crop in the late 1920s by the French colonial administration. The *filière* model was pioneered in this country, following the Belgian experience in the Congo. Several companies operated as regional monopsonies until 1952, when the *Cotonfran* (the equivalent of the CFDT in Chad) obtained a monopsony position. The sector has been organised around a parastatal company ever since: the *Cotonfran* was replaced by the *Cotonchad* in 1971 and only minor changes have affected the organisation of the sector.

Since 1995, the government body which was in charge of agricultural extension has stopped intervening in the cotton sector. The task has been taken over by *Cotonchad*, but to a far smaller extent. Besides, credit distribution has been transferred to village associations since 1986 and the transport is partly sub-contracted to two private firms, at least since 1992 (Djondang, 2008). The privatisation of the sector has been considered since the late 1990s, but has been effective, since 2002, for only one sub-sector: the production of derived products (oil and soap). Since then, the only actual change is the gradual withdrawal of the state in extension services provision. According to the UNDP (2004), this was even reversed in 2006.

Some of the cotton was transformed by a local textile firm until 1991, when it closed down.

Ethiopia

[We have found indication that the sector used to be organised around a parastatal but has been liberalised. Several firms would now intervene in ginning (some of them private), and provide inputs on credit, but price competition would remain limited. Transport would be ensured by the private sector. No ownership by POs.]

Ghana

Cotton is not a major crop or an important source of foreign exchange earnings as it is for most countries in WCA. Its production as a commercial crop was promoted only after independence in Ghana and most of the lint is supplied to the domestic textile industry. A parastatal company, the Ghana Cotton Development Board (GCDB) was created in 1968. It provided seeds, fertilizers, chemicals as well as extension services.

In 1985, the GCDB was largely privatized; the state retained only a minority share (below 30%), which progressively decreased (Hussein et al., 2006). The sector was also liberalized but the free input system lasted until 1994 (Dorward et al.,1998). The market is said to be competitive: a dozen of private firms were found to be active between the mid 1990s and (at least) 2002 (Goreux and MacRae, 2003). There is very little investment in research, for which the GCDB has never been responsible (Hussein et al., 2006). Seed cotton transport is fully privatised since [date to be found].

Faced with significant difficulties, the government recently urged for the creation of local monopsonies and is currently taking steps to support the whole textile-supply chain. Inputs are being subsidized. [There are indications that several private companies have stopped operating. The current degree of competition (and private ownership) however remains unclear.]

Gambia

Cotton commercial production was promoted by the BCGA in Gambia since the late 19th century. Production, however, never reached significant levels until the independence of the country in 1965, groundnut being by far the most important cash crop in the country. The sector was characterized by a de facto duopoly until the creation of a parastatal, Gamcot, in 1992. Dagris has been the majority shareholder until 1996, when it quitted the sector and the state had to step in again. The company has faced a very difficult financial situation since the early 2000s. It has stopped providing inputs. POs are considering buying the company but the situation remains very unstable.

Guinea

Cotton production significantly expanded only in the early 1980s in Guinea (Faostat). In 1984, the Guinean government decided to develop the cotton sector following the *filière* model and chose the CFDT as the technical operator.

The national parastatal was privatized in 2000 leading to the creation of the *Compagnie Guinéenne du Coton* (CGC), of which 85 percent of the capital is detained by private local investors and the remaining 15 by the state. The company enjoyed a private legal monopsony both on ginning and on seed and input distribution on credit.

The government initiated a re-nationalisation process in 2007; the situation is however unclear especially since the country was taken over by a *coup d'état* in late 2009. POs have been created in 2000 but remain loosely organised. One of them offers in puts on credit.

Guinea-Bissau

In Guinea-Bissau, commercial cotton production also only started in 1980 (Faostat), under the impulse of a newly created parastatal company. In 2000, this company was partly privatized: a joint-venture society was created between the state (49%) and a French private group (51%). A second company was created in 2002, thus introducing competition for seed cotton purchase and input provision on credit. Facing strong difficulties, both companies however stopped operating in 2004. A new company emerged that same year, which exported the seed cotton to Senegal.

The situation is unclear since the beginning of this year, when the country was taken over by a *coup d'état*.

The Ivory Coast (IC)

Cotton was introduced in the IC by the French Administration in the early 20th century. The CFDT operated as a monopsony until 1974, when it was replaced by a national company, the *Compagnie ivoirienne de textile* (CIDT)

The sector was reformed in 1999 when two majorly private companies were allowed to enter ginning in two production zones over which they received monopsony rights. A third private ginnery entered the market in 2003. That same year, the CIDT was sold to POs.[7] Further liberalisation has taken place de facto because of the conflict in the north: Ivorian cotton being smuggled to neighbouring countries by 'spontaneous traders' (Kaminski, 2009).

Kenya

Commercial cotton production started to expand in Kenya in the late 19th century, under the impulse of the British colonial administration. It was then produced mainly on settlers' farms under rainfed

[7] There are indications that the government would have re-nationalized the company. This remains to be confirmed.

conditions, and ginned and commercialised by the private sector. Varietal research was conducted by a British research body.

The Kenyan Cotton Lint and Seed Marketing Board (CLSMB) was created in 1955 and began to promote smallholder production, which dominates nowadays. It provided inputs on credit and ginned part of the output but “the sector was still dominated by private colonial ginners by the time of independence in 1963” (Ikara, 2002). After the independence, cooperatives were encouraged to buy the colonial farms and state control over marketing increased. Prices became fixed, seeds were distributed freely and the CLSMB gained a monopsony position for input distribution on credit and ginning. The government invested significantly in textile mills and set high taxes on textile imports.

Cotton ginning as well as all other related sub-sectors, were completely liberalised between 1991 and 1993.

Since 2000, new regulating institutions are however being created, notably with the support of the NGO Action Aid. A Farmer Union was created and, since 2003, an IPC was set up around the PO, the government, NGOs, and other PAs. [Since 2007, the Cotton Development Authority is operational, with a majority of farmers on its board; *but we haven’t found information on its precise role*.]

Malawi

Cotton has been introduced in Malawi as a commercial crop in the beginning of the 20th century by the British colonial administration. While a significant share of the crop was sold to the domestic textile industry, since the downsizing of the latter in the early 1990s, most of it is now exported. Production is almost entirely ensured by small-holders under rainfed conditions, since commercial farmers quitted the sector in the early 2000s (UNDP, 2004).

The first export board was created in 1949 and was merged with other commodity boards in 1956. It was then nationalised at independence in 1962. The board assumed all functions relating to cotton production, until 1983, when its monopoly on inputs distribution was abolished. Cotton marketing was liberalised in 1994. UNDP (2004) reports “weak competition and instability in the ownership structure of gins.” Indications were found that, since 2003, a public offers input on credit, and at subsidised prices; and that, since 2006, the government intervenes again in price setting.

Mali

Attempts to grow cotton in Mali territory began in the early 19th century. They however began to be successful only in the first decades of the 20th century. The CFDT operated in Mali, under the traditional *filière* model until 1974, when it was replaced by the *Compagnie Malienne pour le Développement des Textiles* (CMDT). The CFDT originally retained a 40 percent share in the new company, but progressively stepped out of the sector. The company is almost completely public today (99%). The CMDT is said to have been particularly active in public service delivery in rural areas [Reference to be added]. The privatisation of the CMDT into several local monopsonies has been considered for several years but has not yet been implemented.

Madagascar

Cotton was introduced as a cash crop by the CFDT in the mid-1950s. The sector was organised as a typical *filière*. Independence did not affect the sector's organisation as the CFDT continued to manage all cotton-related activities under long-term convention terms. In 1973, the CFDT itself quitted the sector but was replaced by its newly Madagascar-based subsidiary company. The later was then nationalised in 1978 (and renamed Hasy Malagasy). Since late 2004, the company has been privatised (bought by Dagris, ex-CFDT) and still enjoys a monopsony situation for seed cotton purchase and a monopoly position for transformation and export.

Mozambique

Cotton has been produced in Mozambique since the late 19th century and the promotion of its cultivation by the Portuguese colonial administration (see Isaacman, 1996 for more details on the colonial period). Since the 1920s, firms have operated as regional monopsonies (which are known as "concessionaries"). Smallholders were responsible for the bulk of the production until the 1960s, when forced cultivation was abolished and large-scale farms owned by Europeans entered the market (they accounted for 60% of total output in 1973 according to UNDP, 2004), before exiting the market again in the late 1980s. After independence in 1975, regional firms were nationalised and coordination ensured by the new *Secretaria do Estado de Algodão* (SEA).

Reform started in 1986, before most other countries in the region. Regional companies were partially privatised under the name of Joint Venture Companies (JVCs) and continued to operate as regional monopsonies. Completely private firms progressively entered the market in the 1990s and a regulatory body was created. In 1996, ten firms operated in the country: four JVCs and six private companies. They provide inputs on credit to variable extents.

During a few years at the end of the 1990s [exact dates?] the government allowed competition for the purchase of seed cotton produced by farmers who were not under contract terms with any company. This was however abolished in 2001.

Minimum prices are announced by a government body, after consultation with various sector stakeholders. Export is ensured by lint traders, not the ginners themselves. Public investment in research has historically been minimal, it is said to have been recently [when?] upgraded.

Niger

Cotton has been commercially cultivated in Niger since 1956, when the CFDT began operating following the WCA *filière* model. The CFDT quitted the sector in 1989 and ginneries were sold to a private society. This company continued operating as a monopsony until 1998, when a new firm, owned by Chinese investors, began operating. In 2003, four new companies entered the sector. The ex-parastatal continues to distribute inputs for free but other ginners have different practices.

Nigeria

Cotton production was promoted by the British administration and the BCGA in the early 20th century. A national parastatal company, the northern Nigeria marketing board, was created in 1949, and became the Nigerian cotton board in 1977. The board was in charge in of input provision, purchasing, ginning and exporting lint surpluses, the bulk of the production being supplied to the domestic textile industry.

The board was dissolved in 1985 and the sector liberalized, in the context of a structural adjustment plan. Research and vulgarisation however remained under public responsibility. The government also continues to certify and distribute seeds, at a subsidised rate.

Central African Republic (CAR)

Cotton was introduced in CAR by the CFDT a few years before independence in 1960. A parastatal company, Socada, was created in 1976 and operated following the *filière* model.

The *Socada* was partly privatised in 1991 under the name of Sococa; 60% of its shares were sold to the CFDT (Gafsi and Mbeti-Bessane, 2002). In 1996, a new private company, Cocecot, was allowed to enter ginning in a region abandoned by the Sococa. This de facto regional monopoly was however not granted by law. Since 1999, the CFDT has left the sector (because the government refused to sell shares to make the CFDT a majority shareholder as it wished). Prices have been liberalized and private societies market production, but seed cotton is sold un-ginned to neighbouring countries.

In 2002, the Sococa was liquidated and replaced by the Socadetex, a joint venture between the state and local and foreign investors (accounting, together, for 85%). In 2007, however, the Socadetex was re-nationalised (the state owns 96% of the shares).

Democratic Republic of the Congo (DRC)

Cotton production was introduced in the DRC by the Belgian colonial administration before the 19th century. The sector has been organised a parastatal companies, Cotonco, since the early 1920s. Public companies were responsible for cotton purchasing and exporting. However, private ginneries operated under contract terms until 1972, when they were nationalised, in the post-independence context.

The sector was liberalized in 1978: four partly private companies (owned by textile firms) were allowed to enter the market and operating as de facto regional monopsonies (CECI and Figepar, 2007). The government remains a majority shareholder in only one of them. Prices have also been liberalised. Three additional companies entered the market in 1998. However, in 2006, partly because of the difficult political situation, only one remained in operation.

Senegal

The Senegal River banks saw some of the French administration's first attempts to promote cotton production in SSA during the 19th century. However, production reached a significant level only in 1964 when the CFDT began operating. It was replaced by a national parastatal (Sodefitex) in 1974. The company was privatised in 2003, when Dagris (ex-CFDT) became the majority shareholder. It however still operates as a legal monopsony. POs are currently attempting to entrer the society's capital.

Somalia

[Information remains to be found]

South Africa

[Information remains to be found]

Sudan [8]

Cotton has been introduced as a commercial crop in the early 20th century by the British colonial administration. It is grown by smallholders (known as "tenants") who are allotted small plots on irrigation schemes – the oldest and biggest of which, the Gezira Scheme (GS), was created in 1925 and currently accounts for about two thirds of national cotton production (WB, 2000).

Since the 1950s, irrigation schemes have been entirely managed by the public sector according to planned areas for cultivation (with little crop choice discretion left to tenants). They provide extension services and distribute seeds, fertilizers and pesticides on credit. Marketing boards have enjoyed a monopoly on cotton lint exports and paid fixed pan-territorial and pan-seasonal prices through bidding or tendering procedures ever since the 1950s. The irrigation schemes are also in charge of ginning and organising transportation in coordination with the board. The Ministry of Irrigation provides water, at a subsidised rate. Cotton seed were administratively allocated to oil mills

[8] The author would like to thank Marc Abdala (Sudan FAO Officer in charge) and Ahmed Salah (Sudan FAO Assistant Representative in charge of the Programme) for providing very enlightening information on Sudanese cotton sector policies (personal communication, 2010).

according to their respective capacity until the early 1980s. After a brief period when competition was introduced, schemes are now in charge of cotton seed sale, mostly to private traders (WB, 2000).

The system has changed only at the margin since the late 1950s – the independence of the country in 1956, in particular, led to no disruption – except for financing. The sector was formally nationalised in 1970, with the creation of the Cotton Marketing Corporation (CMC) which replaced the export boards. The CPC became the Sudan Cotton Company Limited (SCC) in 1986 to be privatised in 1993, when it was sold to the Farmers Union. In 2005, a ‘New Act for GS’ was adopted to encourage market-driven production, but it has not yet resulted in concrete changes.

Inputs are still provided by the SCC, but Commercial Banks now ensure funding instead of the Ministry for Agriculture. Since 1978, joint loan liability (known as “joint account”) has been abandoned and farmers are individually liable. The GS has not been directly involved in public service provision but it owns roads and railways lines.

Swaziland

[Information remains to be found]

Tanzania

Cotton has been commercially produced in Tanzania since the 1920s. It was produced by settlers and commercialised and ginned by missionaries until the mid-1950s. Cultivation was later promoted among smallholders by British administration, and Asian businessmen entered ginning and commercialisation. Exports occurred through the Ugandan Board. Research was publicly financed. The sector was regulated through the setting of floor prices.

In 1956, cooperative unions and a marketing board were created together. Regional cooperative unions (RCUs) had a monopsony in purchasing and ginning and primary cooperative societies purchased seed cotton behalf of RCUs. Prices were set pan-territorially and pan-seasonally. Domestic commercialisation and export were ensured by the Board.

After independence in 1964, cooperatives were supported and the private sector progressively exited the sector. The former were however liquidated in 1976 when the Board began operating as a parastatal assuming all the function in the sector.

In 1982, cooperatives were introduced again, with regional monopsony rights re-established in 1986.

In 1992, price fixing was abandoned and in 1995, the sector was liberalised: private agents were authorised to enter any stage of cotton processing and distribution from purchasing to export provided they receive a license from the Board. This led to significant entry.

In the late 1990s, several institutional bodies were created to facilitate input distribution on credit, but none lasted. The Board continues to handle quality regulation (through a private monitoring company), announce indicative prices and provide statistical information on the sector. Since the early 2000s, new taxes have been introduced and a “forced-savings” system has been introduced. The UNDP (2004) reports the existence of “a host of taxes, levies, and fees administered at both district and central government levels.” Larsen reports that private agents have to obtain licences from the marketing board and other administrations to enter the different segments of the cotton sector.

Togo

Cotton production was introduced late in Togo, in comparison to other parts of the region and sector organisation has followed less the tradition *filière* model. A parastatal company, Sotoco, was created in 1973. It gins only about half the crop and sells the remaining seed cotton to three private ginneries under quota terms depending on the firms’ ginning capacity. Public interference is said to be very limited (with no taxes or subsidies). Dagris is the majority shareholder in one of the private companies.

Somalia

[Information remains to be found]

Uganda

Cotton was introduced as a commercial crop in Uganda in 1903. It is produced by smallholders, under rainfed conditions. Ginning, marketing and export were initially ensured by the private sector, while the government intervened in research and extension and distributed seeds.

At independence in 1962, purchasing and ginning were transferred to cooperatives and the Lint Marketing Board (LMB) was created to ensure cotton marketing and regulate the sector. Cooperatives provided inputs on credit.

In 1994, the LMB was liquidated and the sector liberalised (including the transport sub-sector). Private sector entry has been allowed and is regulated by the Cotton Development Organisation (CDO) since then. The CDO issues ginning and export licences, manages seed distribution (freely until 1996) and announces indicative prices in consultation with sector stakeholders. The CDO briefly attempted to provide inputs on credit but the experience lasted only from 1998 to 2000. Its activities are financed by a levy on exports. Public research efforts are said to have significantly increased since the mid-1990s (UNDP, 2004) and 2001 saw the creation of the National Agricultural Advisory Services (NAADS) to perform extension.

In 2003, the government established regional monopsonies: the country was divided into 11 zones, in which two to three ginners were allowed to operate under quota terms. According to the UNDP (2004), inputs and extension provision was re-introduced (at a subsidised rate) and even made mandatory in 2005, when quotas were made proportional to the initial capital for input provision and extension services – this reintroducing a significant barrier to entry. All physical and monetary transactions were to be monitored by a private company. The system seems to have been abandoned in 2008 [Reference to be added].

Zambia

Commercial cotton production in Zambia developed during the first half of the 20th century, under the impulse of the British colonial administration. Independence did not modify sector organisation. A board, the Lint Company of Zambia (Lintco), was created in 1977 and assumed complete operation and regulation of the sector: it ginned, fixed producer prices, distributed inputs on credit and provided extension services.

Lintco was privatised in 1994 (the ginneries were sold to two companies, Lonrho Cotton and Clark Cotton), who each benefited of a de facto regional monopsony power until 1997, when new companies entered the market. This resulted in more price competition.

Since 2000, cooperation among firms has increased as "the agents and independent buyers responsible for the credit repayment problems in the late 1990s largely disappeared" [Reference to be added]. Government regulation was temporarily reinforced between 2002 and 2005, but private entry increased again as of 2005.

Zimbabwe

Commercial farmers began to grow cotton in Zimbabwe during the 1920s. These large farmers had relatively strong lobby power and obtained support from their government in terms of research and extension, to a greater extent than other ESA countries (Tschirley et al., 2009). In 1969, a monopsony position was granted to the Cotton Marketing Board (CMB), which handled most functions in the sector. As of 1983, it began to sell lint to the domestic textile industry at a subsidised rate. After independence in 1980, smallholder production was promoted, notably through credit provision by a public body. In 1992, the CMB introduced its own input credit scheme. Commercial farmers progressively quitted the sector when the world price declined.

The market was liberalised in 1994: the ginning and all sub-sectors were liberalised and privatised. The CMB lost its monopsony position (but continued operating under the name Cottco) and two other companies entered the market (and achieved market shares of around 20 and 25%). An IPC was created in order to coordinate the sector; POs are consulted for price setting. Cottco was privatised in 1997 (the state retained 25% until 2001 and then 10%). In 2001, several smaller firms entered the ginning market, accounting together for over 20 percent. The public sector almost opted out research financing.

Since 2006, regulation of entry has become more severe and input provision has become an obligation for ‘cotton contractors’, who in exchange, are guaranteed of buying the crop ahead of other firms. In 2009, 12 companies were licensed as contractors, but input provision is said to have largely failed: many contractors failed to provide enough inputs.

5. Conclusion

This paper is the first attempt at summing what is known regarding cotton market organisation all over sub-saharan Africa. While some of the information remains to be confirmed in a latter version of the paper, it already provides concise information over a large number of countries, which could be used in empirical work looking at the link between market structure and performance of African cotton sectors. It also already offers a broader perspective on the outcomes of reforms. While this paper does not intend to comment on the desirability of different market organisation options, we describe the difficulty of maintaining competitive sectors afloat, and the frequent de facto re-implication of states. Indeed, whereas the literature focuses on a small sub-set of countries, this paper provides information regarding the reform processes in a number of smaller producers, where they have often failed. As a result, the big picture is one of increasing integration and state re-intervention in sector management and financing, to the point where several companies are being renationalised. Production is collapsing in a number of countries. This paper points to the crucial need for more research regarding the countries which are rarely studied and still more research into finding alternatives for the millions of African cotton producers, whose livelihoods are at stake.

[ADD TABLE 1 – MARKET STRUCTURE INDICATORS – HERE]

REFERENCES

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.

ARAUJO BONJEAN, C., J.-L. COMBES and P. PLANE. 2003. 'Preserving vertical Co-ordination in the West African Cotton Sector,' Working Paper 200303, CERDI

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.*

[BABIN. 2009 ADD REFERENCE]

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

BAFFES, J. 2009. 'Benin, Burkina Faso, Chad, Mali, and Togo,' in K. Anderson and W.A. Masters, eds., *Distortions to Agricultural Incentives in Africa*. Washington DC: World Bank

BAFFES, J. 2005. 'The "Cotton Problem"', *World Bank Research Observer, 20*, pp. 109-144.

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

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.

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

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.'

CECI AND FIGEPAR. 2007. 'Etude Diagnostic' dans le cadre du Programme Multisectoriel d'Urgence de Réhabilitation et de Reconstruction, Ministère des Finances, République Démocratique du Congo.

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.

DELPEUCH, C., A. VANDEPLAS and J. SWINNEN. 2010. 'Revisiting the "Cotton Problem": A Comparative Analysis of Cotton Reforms in Sub-Saharan Africa.' Paper prepared for presentation at the 114th Seminar of the EAAE, *Structural Change in Agriculture: Modelling Policy Impacts and Farm Strategies*, Humboldt-Universität zu Berlin, April 15-16.

DERCON, S. 1993. 'Peasant Supply Response and Macroeconomic policies: Cotton in Tanzania.' *Journal of African Economies, 2* (2), pp. 157-194.

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

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

DJONDANG, K., M. FOK, B. WAMFLER, and N. TORDINA. 2008. ‘Au Tchad, le processus de réforme de la filière cotonnière se trouve dans une impasse’, Post-Print, HAL, http://econpapers.repec.org/RePEc:hal:journl:halshs-00324396_v1.

DORWARD, A., P. HAZELL AND C. POULTON. 2008. ‘Rethinking Agricultural Input subsidies in Poor Rural Economies.’ Future Agricultures Briefing.

[FOK, M. 1993 ADD REFERENCE]

GAFSI M., MBETID-BESSANE E., 2003. ‘Stratégies des exploitations cotonnières et libéralisation de la filière.’ *Cahiers Agricultures 12* (4), pp. 253-260.

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.

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

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

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

[IKARA, 2002 ADD REFERENCE]

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

KAMINSKI, J., D. HEADEY and T. BERNARD. 2009. ‘Institutional reform in the Burkinabè cotton sector and its impacts on incomes and food security: 1996-2006.’IFPRI Discussion Paper No. 920.

KRANTON, R. and A. SWAMY. 2008. ‘Contracts, Hold-Up and Exports: Textiles and Opium in Colonial India.’ *American Economic Review, 98* (3), pp. 967-989.

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.

GERGELY 2009A

GERGELY 2009B

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/Gl. 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.

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

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

[LEVRAT, R. 2008. ADD REFERENCE]

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. 2ème Partie : Les études pays.' Ministère des Affaires Etrangères.
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 (Eds.). 2008. *Hanging by a Thread. Cotton, Globalization and Poverty in Africa*. Athens: Ohio University Press.
Poultion, C. and B. Hanyani-Mlambo. 2009. 'The Cotton Sector of Zimbabwe.' World Bank Africa Region Working Paper No. 122.
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. N. 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.
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.
Tschirley, D., C. Poulton N. Gergely, P. Labaste, J. Baffes, D. Boughton and G. Estur. 2010. 'Institutional Diversity and Performance in African Cotton Sectors.' *Development Policy Review, 28* (3), pp. 295-323.
Tschirley, D., C. Poulton and P. Labaste, eds. 2009. *Organization and Performance of Cotton Sectors In Africa. Learning from Reform Experience*. Washington DC: The International Bank for Reconstruction and Development /The World Bank.
[UNDP, 2004 add Reference]
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.
[World Bank. 2000. Add reference on Sudan]
World Bank. 2004. 'Benin. Cotton Sector Reforms: A poverty and Social Impact Analysis.' Report No. 29951-BJ.