Economic Report Series

Economic Impact of Cotton Producers’ Boycott in Mali[1]

Sikoro Kéita

August 2000

USAID/Mali - Program Office

[1] I would like to singularly thank Roger BLOOM, Timm HARRIS, James HRADSKY, and Amadou CAMARA for pertinent comments and suggestions in the process of drafting. Nevertheless, the opinions expressed in the paper belong to the author and don’t necessarily reflect the official position of USAID.

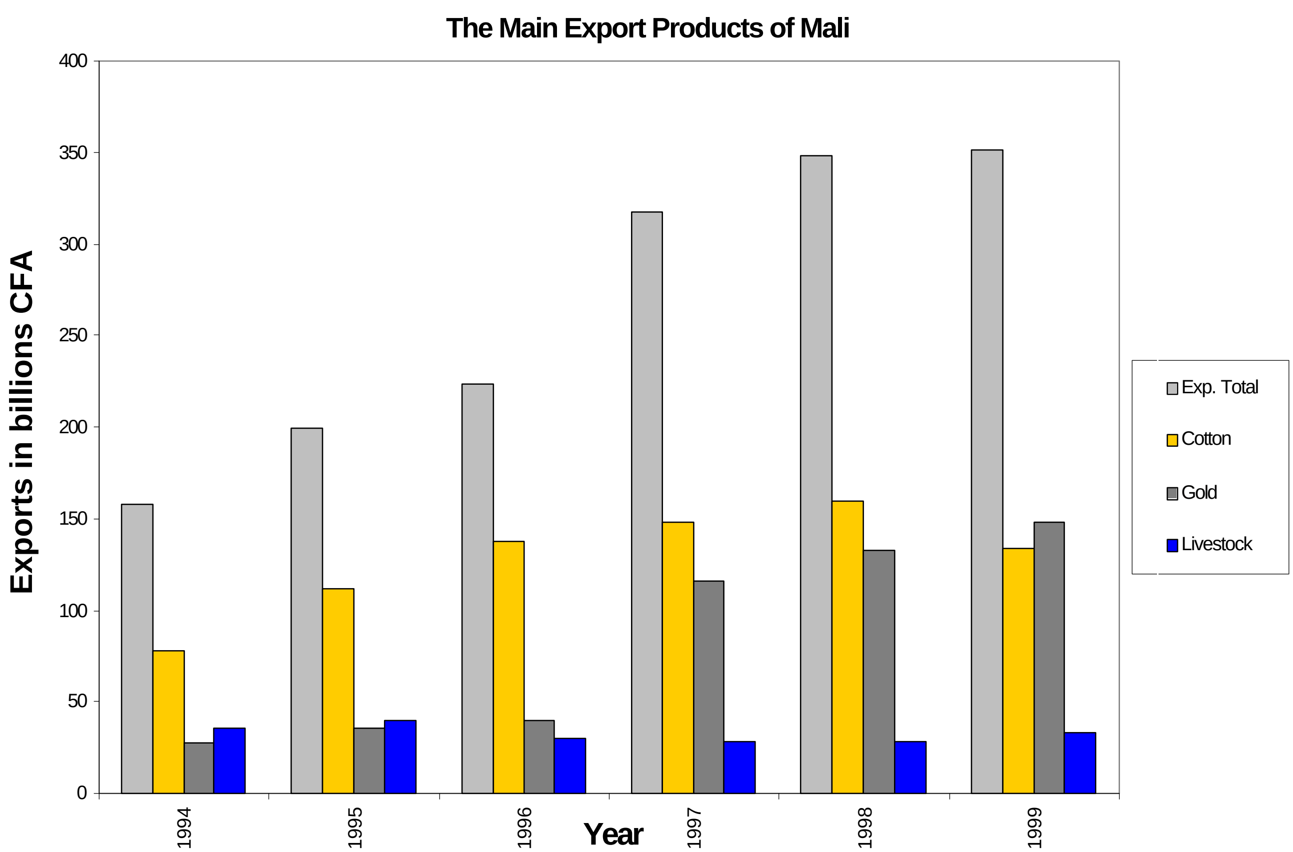
I. Introduction

Since 1991, Mali has been the largest cotton producer in sub-Saharan Africa and the second largest in the whole of Africa after Egypt. A national record of 522,633 metric tons was reached in 1997. However, since that year, cotton production has steadily declined: 517,027 metric tons in 1998 and 485,621 metric tons in 1999.

Nevertheless, reductions during the last two years will not compare with the large projected drop in national production for this season. In fact, because of problems during the cotton-planting season, a drastically lower national production of 233,000 metric tons is expected for the upcoming year. This will likely result in a big loss of revenues for the country. In this regard, an important question to be addressed by the present analysis is how important this loss of revenues will be, and what will be its impact on the economy? The analysis will also provide some suggestions for lessening the shock.

II. How Important is Cotton to the National Economy?

Cotton is a major sector of Mali's economy. Cotton sales represented about 10% of the GDP during recent years, and constitutes the main export product from Mali, around 50% of total export revenues, as can be seen in the following chart (source: "Direction Nationale de la Statistique et de l'Informatique").



In addition, the cotton sector is one of the largest contributors to the Malian State budget (about 80% of the fiscal and para-fiscal revenues). Its contributions in terms of tax payment to the Treasury was estimated to 33.862 billion CFA francs in 1998, from which 75% came from CMDT and 15% from HUICOMA. As a result of drop in cotton revenue, at least half of last year tax payments could be considered as lost by the Treasury for the upcoming year under an optimistic forecast, which corresponds to **16.9 billion CFA.**

III. Reasons for a Crisis and Consequences on the Cotton Sector[2]

a) The International Price Decline and Farmers' Reactions

In Mali, the cotton price paid to farmers is not determined in a free and open market. Each year, through what is called the "contrat-plan", three parties (State, CMDT, and cotton producers) decide on a *floor price* to be paid to the farmers. Depending on the profit situation at the end of the cotton campaign, CMDT (the national textile Development Company) can pay a rebate based on a share of overall profit in addition to the fixed floor price. For example, for the 1998/99 marketing year, the floor price established in the "contrat-plan" was fixed at 145 CFA francs per kg. However, due to an increase in the international cotton price and, thus, increased profits realized by CMDT, farmers received a rebate of 40 CFA francs per kg. As a result, the *effective price* received by farmers was 185 CFA francs. In fact, during the last few years, good international cotton prices allowed the CMDT to pay regular rebates to farmers.

On the other hand and particularly during year 1999, the international price for cotton fell from 920 CFA francs to 630 CFA francs. This decrease caused a huge loss of revenues of the CMDT, totaling about 37 billion CFA francs, not including additional costs due to the inefficiency in CMDT management as revealed by the financial audit conducted last July by the World Bank. Therefore, last year, the CMDT was unable to distribute any rebate to farmers, and the CMDT was concerned about how to absorb the deficit. As could be expected, there was an angry reaction from farmers. And through difficult negotiations, the Government convinced cotton producers to accept an effective price of 150 CFA francs per kg, which meant no payment of any rebate was made.

However, farmers came up with some grievances, including:

- The necessity to reschedule farmer's loans: Because of the decrease in the international cotton price, CMDT was not able to distribute rebates as expected by farmers. As a result, many farmers were unable to pay back their loans incurred through the acquisition of agricultural inputs (fertilizers, pesticides, etc.). Then, they requested a debt rescheduling through a review of their agreements with the BNDA, the agricultural credit bank.

---

[2] SYCOV is the cotton producers union in the country. Because its activities seem to be partially financed by CMDT, SYCOV's leadership in defending cotton producers' interests is being questioned and other groups are being settled.

- A request to cancel debts because of damaged fields: During the 1999-rainy season, many fields were seriously damaged because of flooding. Then, farmers asked for a cancellation of debt related to these damaged fields.

- The exemption of taxes on agricultural credits: Since April 1999, the Government has charged a 15% tax on the 10% interest payments of debts, exclusive of the 0.5% payment for death insurance (e.g. on a loan of 10,000 CFA francs, the 10% interest =1,000 CFA francs, and the 15% of this amount = 150 CFA francs). Farmers want this 15% tax on interest payments cancelled.

- The establishment of an agricultural insurance program to adjust for international price fluctuations.

Farmers view resolution of these matters as essential to help them face this particularly difficult situation where the effective price of 150 CFA francs is paid compared to 185 CFA francs received last year. The Government has agreed with these proposals.

b) The Government's Interventions during the Crisis

Following several meetings, the Government finally decided to adjust the price to farmers from 150 CFA francs to 160 CFA francs. But, obviously this still remains far below the 185 CFA francs of last year.

In reality, it is only when farmers received payments for their production that they became aware of the actual price situation. Most of them did not clearly understand the floor-effective price system, and experienced for the first time the negative effects of international price fluctuations on their revenues.

More importantly, there was no consideration by the Government for any grievances raised previously by the farmers, which means no debt rescheduling, nor any debt canceling had been undertaken. BNDA has directly deducted loan payments from the money earned by the AVs, the village associations of cotton producers. Consequently, and because of the group solidarity guarantee ("caution solidaire[3]") practices, many farmers received almost no revenues. This caused much frustration and social conflicts in the AVs, affected the relationship between AVs and SYCOV, and discouraged farmers from planting cotton.

Why didn't the Government seriously take into consideration the farmers' grievances? Why were the speeches of the Minister of Rural Development fail to reassure farmers during the field trips? Was there a lack of communication between the Government and BNDA? Why were there delays in the payment of farmers' revenues? All these issues have contributed to the current boycott on cotton planting by farmers.

[3] "Caution solidaire" refers to a kind of guarantee system by a group of persons who cannot individually guaranty their personal loans. In this case, the AV (village association) which is composed of all the cotton producers in a village, guarantee the loans of any cotton producer in the village. The disadvantage of this system is that everyone is responsible of all loans, and even if one farmer defaults, the whole AV is held accountable.

IV. Impact of Cotton Boycott on the Whole Economy?

a) The Intrinsic Impact of the Cotton Production Fall

There is no doubt that the decrease in cotton production will have an important impact on the national economy of Mali. Clearly, as a major result, we can anticipate a significant decrease in the GDP, and consequently, a fall in the national economic growth rate. However, to have a full understanding of the direct consequences, we must address the following questions: what will the magnitudes of these impacts be, and what will their implications be on other sectors?

To address these questions, the traditional *Keynesian*[4] *theories of fluctuations*[5] will be used here. The fluctuations may include changes in monetary and fiscal policy, shocks to investment demand, shocks to exports or imports, etc.

The cotton production decrease will mainly affect two macroeconomic variables: the national exports (98% of the cotton fiber produced in the country is exported); and the Government's fiscal revenues (cotton fiscal revenues represented 80% of the total fiscal and para-fiscal revenues in 1995). Government's fiscal revenues will decrease, not because tax rates are lower, but because the tax base is smaller (CMDT is not in a position to be able to pay taxes as usual). An immediate effect of that will be a decrease in Government expenditures. Both Government expenditure (G) and national export (X), will have **a multiplier effect**[6] on the national income or GDP (Y). The combined effect

[4] John Maynard Keynes is the British economist who, in 1936 revolutionized economics with his book *The General Theory of Employment, Interest, and Money*.

[5] The traditional *Keynesian theories of fluctuations,* which are appropriate to explain short-run economic fluctuations (that are from month to month or from year to year), will be used here. This approach, which is otherwise simpler compared to the *real-business-cycle* models, is based on sluggish adjustment in prices in the short run, so that changes in aggregate demand can influence income. In brief, through the classical *IS-LM* framework, what is known as the *Keynesian cross* is used to provide the *multipliers* allowing evaluation of the impacts of many sources of fluctuations on the GDP. The *Real-business-cycle* model is another channel to explain economic fluctuations. This theory assumes that prices are fully flexible, even in the short run, and obeys the *classical dichotomy*, that is nominal variables like money supply or prices do not affect real variables like output or employment. The economist John R. Hicks introduced the IS-LM model in 1937. This model can be viewed as showing what causes income to change in the short run when the price level is fixed or showing what causes the aggregate demand curve to shift. For more details, see Romer, David (1996): *Advanced Macroeconomics,* ed. by The McGraw-Hill Companies, Inc., Mankiw, Gregory N. (1997): *Macroeconomics*, ed. by Worth Publishers, and Parkin, Michael – Phaneuf, Louis and Bade, Robin (1992): *Introduction à la Macroéconomie Moderne*, ed. by ERPI.

[6] $\Delta Y = \Delta X/(1-\varepsilon) + \Delta G/(1-\varepsilon)$, where ε is the marginal propensity to consume local goods and services. G and X have a similar impact on Y (that is an identical multiplier $1/(1-\varepsilon)$), because they are part of what is called *autonomous spending* that means spending which does not change when Y changes. ε theoretically equals the difference between the marginal propensity to consume in the country and the marginal propensity to import. Knowing that a large majority of Malians have very low revenues compared to the costs of life in the country and that the Balance of payment (before transfers) is structurally in deficit, the marginal propensity to consume can be estimated to 1. Concerning the marginal propensity to import, it has been estimated by the ratio Imports/GDP, which is around 0.3. Then the common multiplier is $1/(1-\varepsilon) = 1.429$. The upcoming Cotton production is estimated to 232 939 metric tons (source: CMDT), which

resulting from these two shocks corresponds to a **119.9 billion CFA[7] francs** decrease in GDP or **about 7.2% decrease in the GDP growth rate**, all other things being equal. This constitutes an alarming negative situation for the country. It means that economic growth is jeopardized for the upcoming year. Worse than that, recession is a real threat for next year. But, the intrinsic impact is not the only factor to provoke fluctuations of the GDP.

b) Other Sources of GDP Fluctuations

Other sources of fluctuation will affect the GDP due to this boycott, some of which we could call the "seismic effects" of the initial shock. Some of these new developments will have positive impacts on the GDP, while others will have negative impacts.

For example, farmers in general have substituted other products for cotton, such as maize, millet, sorghum, rice, peanuts. The supply of these substitutes will necessarily increase in the country, implying a certain contribution to GDP. But, it should be noted that cereals are not as "cash crops" as cotton or gold: the cereals export revenues were estimated to only 1.9 billion CFA in 1995, 2.5 in 1996, 4.0 in 1997, 0.1 in 1998 and 1999. Second, because of the anticipated excess supply, the prices of these substitute commodities will drop, all other things being equal. Third, a decrease in Government revenues and thus expenditures may affect civil servants' salary payments, which in turn will affect consumption and provoke a decrease in the GDP. Fourth, because of the big decrease in export revenues and reduction in foreign currency availability, the country may be forced to reduce its import volumes, and lower investment volume, which will affect its future production capacities.

It is clear that all these other impacts cannot be easily and precisely quantified because partially of the non-availability of reliable data. However, most of them can be classified as secondary or tertiary "waves", in the sense that they are much less important than shocks on national exports and Government expenditures.

On the other hand, the social consequences of all these economic impacts, even if they are difficult to be anticipated and to be quantified, could be extremely important.

Finally, the shortfall in GDP can provoke an increase in unemployment in the country [8].

V. What Actions and Policies Can the Government Undertake?

There are essentially two policy directions pertinent in this case. (Budgetary expansion

---

corresponds to a bit less than half of last year production. Based on that, the upcoming cotton export revenues will be, other things being equal, a maximum of 134/2 billion CFA = 67 billion CFA (half of last year cotton export revenues).

Then, the national GDP should register at least a decrease of **$\Delta Y = (\Delta X + \Delta G)/(1-\varepsilon) = (67 + 16.9) \times 1.429 = 119.9$ billion CFA.**

[7] The estimations in terms of loss of income depend also on the cotton international price. The current estimation is based on last year international price. It is clear that a substantial increase in international price will reduce the gap and inversely. Now the international cotton price has slowly gone up, provided that this trend will continue.

[8] Arthur M. Okun is an economist from United States who established the relationship between movements in output and the unemployment rate. The Okun's Law stated a shortfall in GDP of 3% relative to normal growth produces a 1 percentage point rise in the unemployment rate.

policy is not appropriate because of the heavily indebted situation of the country. Monetary policy is also not feasible because of the UEMOA context, in the sense that the eight African countries in the Union and France conjointly decide the monetary policy for the UEMOA region).

First, on the exports side, the country will need to be more dynamic in improving alternative product exports. These products will naturally include cereals[9], fruits[10], vegetables and livestock. This cannot fully compensate for the gap in cotton export, but the country will need to reduce the magnitude of the lost cotton earnings. The reinforcement of exports can be done through a better organization of local exporters and an improvement in market information to find exterior markets. This last action aims at a better visibility of Malian products in foreign countries and a larger participation of the country in international trade fairs[11].

Second, the Government should implement a strict enforcement of tax policy. Widespread tax evasion is well known as a salient feature of the fiscal system in Mali. Fraudulently imported products invade markets, and with the complicity of customs staff, many importers do not pay regular tax rates. Additionally, the informal sector in the economy (untaxed) remains very important. These represent important losses of fiscal revenues for the State, far higher than the gap in CMDT's contributions in terms of tax payment.

To avoid similar problems in the future, some major constraints that jeopardize efficiency in the Malian cotton sector have to be seriously looked at. These include:

- The monopoly position of CMDT: CMDT is the unique operator in the whole cotton sector in Mali. This includes assistance to producers, transportation, shelling, marketing, and cottonseed processing (by HUICOMA). In addition to that, the "Financial audit" of the company has revealed deep weaknesses in the management side. Clearly, CMDT is now what can be called "A Giant with clay foot". Just to say that sectoral liberalization/privatization and capital opening will simply be beneficial for the efficiency of the overall sector.

---

[9] More emphasis has to be put on reinforcing the activities of the ROEAO ("Réseau des Opérateurs Economiques de l'Afrique de l'Ouest") established in June 2000. As an initiative of SEG (Sustainable Economic Growth SO from USAID/Mali), this is an electronic network for the West African Region's exporters and importers. From February to July 2000, transactions of 50,000 metric tons of cereals were achieved by this initiative. This tool needs to be largely supported and reinforced, particularly for the upcoming year.

[10] In 1999, CAE (Centre Agro-Entreprise), an implementing organ of SEG/USAID, succeeded in exporting Malian mangoes by boat for the first time. That success story has also to be repeated in this very difficult period.

[11] The recent example of Mali's participation in the Gabon's trade fair is illustrative. This participation, jointly organized by the Ministry of Industry, Commerce, and Transport, and the "Chambre d'Agriculture" was a success story in terms of livestock, fruits and vegetables, and textile product exports. Such initiatives have to be encouraged. However, Malian participants have deplored the lack of trade policy between Mali and Gabon to facilitate exports.

- The monopoly position of HUICOMA: HUICOMA (60% owned by CMDT and 40% by the Government) has a monopsony position in cottonseed market, which means it is the unique buyer of the cottonseed produced in the country. However, this company is characterized by major managerial problems: it owes CMDT up to 7 billion CFA francs in back debts. This is the situation, despite the fact that HUICOMA underpay for cottonseed with CMDT: 11 CFA francs per kilo until last year while the price in the regional market was 35 CFA francs, and only 20 CFA francs per kilo presently. Also, HUICOMA has recently almost doubled the price of animal feed to cattle breeders (from 37,500 to 62,500 CFA francs). As a reaction, cattle breeders had no other choice than to import animal feed from neighboring countries, while Mali is the largest cotton producer in sub-Saharan Africa.

- The low remuneration of producers: It has been clearly established from the conclusions of the "Atelier Régional sur l'Evolution de la Filière Coton en Afrique de l'Ouest depuis la Dévaluation du Franc CFA" in July 1998, that production costs (including salaries for all the members of the producer's family) exceed by a large margin the price paid to producers. CMDT replies that it also contributes to other development issues (roads construction, producers training, etc.) in all the intervention areas. However, this low-income situation of cotton producers, which is certainly the first reason of their boycott, seriously threatens future cotton production in the country. In addition, several farmers are heavily indebted because of input credits. This also will discourage cotton production in the short run.

- The unclear situation of the "Caisse de Stabilisation": Instead of being a kind of mechanism of compensation for international price fluctuations, proportions of the resources from this tool seemed to have disappeared without any precise destination into the national budget. That's the reason of its designation as a "black box". A proper clarification of the precise role of this "Caisse de Stabilisation" will also be helpful for the cotton sector to improve the transparency of overall operations.

- Short run needs of funding: Because of its current financial deficit and also because several farmers will not be able to pay back their agricultural debts, CMDT and the Government of Mali will need to mobilize in a short period of time a substantial amount of funds in order to achieve a successful upcoming campaign. Certain estimations indicate a need for 60 billion CFA francs.

Moreover, knowing that the external debt burden of the country represent an annual interest payment of about 70 billion CFA francs, a debt relief through the Heavily Indebted Poor Countries Initiative (HIPC) should in some way reduce the drop in the GDP. Thus, the Government will need to complete quickly and properly the full Poverty Reduction Strategic Paper (PRSP) process.

VI. Conclusion

This analysis (which is not exhaustive) indicates clearly that the expected decline in cotton production due to boycott by cotton producers, will provoke an important loss of revenues for Mali of about 119.9 billion CFA francs, which corresponds to a 7.2 %

decrease in GDP, other things being equal.

This is the result of the impact will be a decline in the national GDP. However, it is clear that substitution of other crops will lead to increases in production of cereals or other crops, which should cushion the global impact of this internal shock. The paper did not quantify these other sources of GDP fluctuations, except that they have minor effects compared to the gaps in cotton export and in CMDT's fiscal contribution to the state budget.

Obviously, this is an alarming scenario that can lead to a recession for the upcoming year in the country, instead of the economic expansion observed during recent years. Nevertheless, it should be mentioned that these estimates of the intrinsic impact are also subject to international prices for export products. An increase in the international prices for Mali's export products will somewhat reduce the loss of income. In addition, the impact will also depend on the efficiency of internal measures taken by the Government to deal with the negative input.

In this regard, even though possibilities for interventions are limited since the Malian economy experienced a long cycle of budgetary deficits, and due to the fact that the country does not unilaterally decide its monetary policy, certain measures can be taken to mitigate the consequences.

First, on the export side, the country will need to promote exports of alternative commodities including cereals, fruits and vegetables and livestock. This can be done through a better organization of local exporters and an improvement in market information to find exterior markets. The "Réseau des Opérateurs Economiques d'Afrique de l'Ouest" is a good example of networks to be reinforced. Participation in international trade fairs is another example for more visibility in foreign countries. This alternative export reinforcement will not eliminate the gap of reduced cotton exports, but it will surely reduce its magnitude.

Second, on the budget side, the Government should implement a strict enforcement of tax policy. Because of widespread tax evasion (fraudulent imported products, no payments of regular tax rates, informal sector, etc.) in the country, a tight control policy will be needed to track tax evasions. In this case, the lack of systematic controls has a cost much higher than the gap in the CMDT's fiscal contribution.

Third, the Government will need to accelerate the full PRSP process in order to benefit from the full HIPCs debt relief resources.

Finally, concerning future cotton production in the country, important actions have to be undertaken. These actions will include 1) acceleration of capital opening of the CMDT, privatization or liberalization of certain activities in the cotton sector (like roads constructions, transportation, cottonseed market, etc.), 2) examination of producers indebtedness and their participation in CMDT's capital, 3) reestablishing dialogue with producers, 4) clarification of the explicit function of the "Caisse de Stabilisation", and 5) measures to quickly mobilize funds to finance the upcoming campaign needs.