

International Trade Negotiations and Poverty Reduction: The White Paper on Cotton

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This book is dedicated to all the producers, both in the South and the North, who are suffering as a result of agricultural subsidies and unfair trade.

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Reform of the fixing mechanism for the purchase price for Malian cotton farmers and its consequences in the context of falling world prices¹

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Introduction

Faced with unfair competition internationally from massively subsidised production and dumping originating in Northern countries, notably the USA and the European Union, the African countries that instigated the Sectoral Initiative in Favour of Cotton, accompanied by others, have vigorously denounced these trade-distorting practices, which are at odds with the neo-liberal discourse of the offending governments.²

Cotton is amongst the few products for which African countries in the CFA franc zone have seen an increase in their share of export markets. However, the mechanisms for determining the purchase price for the producers of this cotton are far from transparent: the price is defined in relation to other prices that are invisible to most agents, including the anticipated price on the international markets, and costs and margins for marketing and processing by cotton companies.³ Moreover, in a context of the liberalisation of cotton industries, both the price level and the method for determining the producer price are increasingly transferring uncertainty and risk in the cotton sector onto the farmer, thus increasing his vulnerability.⁴ Furthermore, the strong dependency of West African economies on cotton means that shocks affecting the cotton industry are immediately transmitted to the economy as a whole, via transmission channels well known to economic theory.⁵

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² Nubukpo, 2004; Pesche and Nubukpo, 2004.

³ Araujo-Bonjean and Brun, 2001.

⁴ Araujo-Bonjean and Boussard, 1999; Nubukpo, 2000.

⁵ Abbott and McCalla, 2002; Timmer, 2002.

For cotton industries, this state of affairs is particularly worrying due to the considerable instability of the global cotton price (Cotlook Index A). Subject on the one hand to volatility resulting from the imbalances of supply and demand in the global market and, on the other, to the instability arising from fluctuations in exchange rates between the US dollar and the CFA franc, cotton prices have become increasingly unpredictable since the beginning of the 1970s. Some writers have observed that “major changes in price tend to be followed by other large-scale changes; in other words the volatility of prices is serially correlated”, while there is also a widening of the range over which prices fluctuate.⁶ And these writers conclude that “liberalisation of the cotton industries in the CFA franc zone of Africa is taking place in a particularly unfavourable context: the expected returns from exports are relatively low compared [with] the 1960s, but the risks involved are more and more substantial.”

The subsidies allocated by Northern countries (essentially the EU and the USA) to their farmers are one factor that is regularly cited to explain the persistent decline in world cotton prices. In the specific case of Mali, a study by Adjovi, Wetta and Sanogo (2004) reveals the negative impact of EU and US subsidies on the Malian economy for the year 2001.⁷ In the opinion of these authors, “it appears that world cotton prices determine at once the level of cotton production in Mali, the price for the producer and agricultural income. However, the impact of world prices is much less significant on the generation of value added by the farm enterprise.” Northern country subsidies exert an impact on the Malian economy on at least two levels:

- Via the classic channel of reducing world cotton prices and, consequently, the export receipts for Mali, which is a “price taker” on the international market;
- Via the modification of the rules by which the cotton purchase price for the producer is determined, which in turn affects the distribution within the sector of the value added generated.

This article aims to analyse in greater detail the second channel, which to date has received less attention than the first, but which is likely to have a considerable impact on the living conditions of cotton producers.

The Malian example is particularly significant in that, following the fall in international cotton prices, and taking into account the large deficit of the CMDT (*Compagnie Malienne de Développement des Fibres Textiles*, which has a monopoly on the purchase of cottonseed), a new mechanism for determining the purchase price of cottonseed from the producer was adopted in January 2005. The adoption of this mechanism led to a lowering of the minimum guaranteed price, from FCFA 210 per kilo of “top grade” cotton in 2004/05, to a price range of between FCFA 160 and FCFA 175 per kilo, starting from the 2005/06 growing season. It also led to the effective end of the guaranteed minimum price system.

⁶ Araujo-Bonjean and Brun, 2001.

⁷ From a correlation matrix and elasticity calculations, the authors have obtained the following results: a direct fall in receipts of 1.6 per cent for the public treasury, a decrease by 1.8 per cent in global revenue, an elasticity of 0.3 between poverty indicators and world prices; an elasticity of 0.87 between cotton revenue and poverty indicators.

The lower end of this price range is, according to the available data, lower than the average cost of production per kilo of cottonseed, and thus raises the issue of what adjustments will be made by farmers, and by the Malian cotton industry as a whole, to ensure the viability of production in the short and medium terms.

The aim of this article is to analyse the expected impact on the Malian cotton industry and economy of the implementation of the new fixing mechanism for the price paid to Malian cotton farmers, taking into account production costs and also the ongoing institutional changes within the industry (i.e. planned privatisation of the CMDT and the transfer of new responsibilities to farmers' organisations). This work is based on surveys done in the cotton-growing zones of Mali and the creation and use of a social accounting matrix for the country as a whole.

The first section of the article presents the new purchase price mechanism for cottonseed for the producer (section 1), before analysing its microeconomic impacts (section 2) and macroeconomic impacts (section 3), and finally drawing some conclusions and making some recommendations.

The new price mechanism for purchasing cottonseed from the farmer

In January 2005, the Malian government, the state cotton company CMDT and the cotton farmers' unions signed a protocol on a new mechanism for fixing the purchase price of cottonseed. This new agreement brings about a radical change in the base price of Malian cotton, which will henceforth be directly linked to the international price (Cotlook Index A), rather than being derived essentially from production costs. This change comes at a time when the industry is facing major difficulties in terms of CMDT's financial balance. At the same time, input costs are increasing and yields are declining in many cotton-growing areas, while the support funds to underwrite the new price mechanism do not yet exist.

The old mechanism

The mechanism applied in Mali for determining the purchase price per kilo of cottonseed before the January 2005 reform was based on bipartite negotiations between the CMDT and representatives of producer organisations. This mechanism suffered from the practical difficulty of differentiating the minimum guaranteed price from the initial price offered to farmers. However, in practice, its implementation allowed producers to obtain an initial price of FCFA 200 per kilo and a definitive campaign price of FCFA 210 per kilo for "top grade" cottonseed in 2004/05. Moreover, the old mechanism implicitly recognised that the initial price would be higher than the minimum price and, in turn, that the definitive price would be higher than the initial price. However, the Malian government, under pressure from the donor community and fearing for the long-term sustainability of supporting the cotton industry deficit and the repercussions of the CMDT's financial problems, accepted demands to re-open negotiations on the mechanism for determining the cottonseed purchase price.

The new mechanism

The Malian government opted for a new mechanism to determine the purchase price of cottonseed for the producer, which resulted in a drastic revision downwards of the guaranteed minimum price. It fell from FCFA 210 per kilo to FCFA 160-175 per kilo from the start of the 2005/06 season. Furthermore, two articles in the protocol signed by the Malian government, the CMDT and the producers (represented by the GSCVM⁸) seem particularly important, as they introduce new elements into the process for determining the price paid to producers.

In this protocol, which was initiated by the World Bank in a Memorandum dated 14 November 2004 (Technical Monitoring Mission for the SAC IV Program) and subsequently adopted by the Malian government, a specific innovation is Article 8, which states that in case of *force majeure*, the signatories to the protocol can decide on a reduction in the purchase price of cotton, which could therefore fall below the lower limit of the agreed price range, i.e. below FCFA 160/kg. This article assumes a particular significance when read in conjunction with Article 2, which states that the new pricing mechanism “must be implemented whether the support fund be subscribed to or not” i.e. that the support fund intended as a guarantee to the effective functioning of the new price mechanism is in no way a prerequisite to its application.

Currently, the creation of a support fund is under study and a consultant’s report commissioned by the MRSC⁹ is expected. The protocol also states that, every three years, the price range is to be revised in agreement by the various parties. Finally, Articles 4 and 5 set out, respectively, the ways of dividing the industry’s revenues between the CMDT and farmers, and the methods for determining the final remuneration paid to cotton farmers.

In the context of this balance of power, which is unfavourable to cotton farmers, an objective evaluation is needed of the likely micro- and macroeconomic consequences of the application of the new cotton price mechanism, taking into account underlying trends in cotton production costs.

Macroeconomic impacts (impacts microéconomiques)

Production costs in the cotton-growing zone of Mali

The farms that were the subject of the study were classified according to the typology described below (A, B, C and D) and used by CMDT in the cotton-growing zone of Mali:

- A farm of type A is one that is equipped with at least two pairs of ploughing oxen, a plough, a multi-cultivator, a seed drill, a cart (either donkey- or ox-cart) and a herd of at least six head of cattle over and above the working oxen. These farms have at least two ploughing units (two pairs of working oxen and two ploughs and/or multi-cultivators);

⁸ “Groupement des syndicats cotonniers et vivriers du Mali” (Group of Cotton and Food-Producing Unions of Mali).

⁹ “Mission de Restructuration du Secteur Coton” (Cotton Sector Restructuring Mission).

- A type B farm has one ploughing unit at its disposal;
- A type C farm has one incomplete ploughing unit, but has experience of plough cultivation;
- A type D farm is one that has no equipment and where all the work is done manually..

Table 1 shows the distribution of the different types of agricultural production unit (APU) in the study zone:

Table 1: Distribution of farms by type

Type	Pourcentage
Type A	34,9
Type B	46,3
Type C	10,3
Type D	8,5
TOTAL	100

Source: CAMFPGP,¹⁰ growing season 2003/04

Table 2 gives an overview of cotton production costs per hectare, according to the APU type.

The main difficulty in determining cottonseed production costs lies in fixing the cost of daily farm labourers' wages. The daily wage rate used in this study is FCFA 750, which corresponds to the estimates of researchers from ESPGRN/IER¹¹ in Sikasso, following group discussions with producers in November 2004, and is in line with current practice in the cotton-growing areas of Mali.¹²

¹⁰ "Commission d'Application du Mécanisme de Fixation du Prix du Coton Graine aux Producteurs" (Commission for the Application of the Cottonseed Price Fixing Mechanism for Producers).

¹¹ Keïta et al., 2004.

¹² This daily wage is also the one used by the HORUS-SERNES study, 2002.

Table 2: Overview of cotton production costs per hectare, according to APU type (all costs in CFAF)

Rubrique/Type UPA	Type A	Type B	Type C	Type D	Average
Average area (hectares)	5,41	3,16	0,73	0,48	2,45
Allowance for depreciation (1)	25764	25955	17664	8544	19482
Salaried labour	6750	3750	6750	0	4313
Family labour	71250	75000	59250	75750	70313
Total	119997	103674	72999	35362	83008
Cottoseed yield per ha (kg)	1127,35	1108,86	859,31	621,33	929,21
Cotton fibre yield per ha (kg)	473,49	465,72	360,91	260,96	390,27
Cost per kilogram of cotton (2)	106,44	93,50	84,95	56,91	85,45
Cost per kilogram of cotton (3)	169,64	161,13	153,90	178,83	165,88

(1) Annual payment per hectare calculated according to a linear depreciation of material and equipment, converted into per hectare terms.

(2) Cost without family labour.

(3) Cost with family labour.

Source: estimations by the authors based on SEP/ESPGRN/IER Sikasso data and monitoring by CMDT. It should be noted that these results only cover the 2003/04 season.

Farms of type C and type D, which cultivate less than one hectare of cotton on average, tend to specialise in cereal production (with more than three hectares of cultivated area on average). They grow cotton only in order to take advantage of cotton inputs from the CMDT, which are then used for their cereal crops. Furthermore, they have yields that are markedly lower than those of farm types A and B. This is due to the fact that, being unequipped or poorly equipped, they begin production later, in order to make use of equipment and labour once the type A and type B farms have finished their operations. This means that the dates for ploughing and hoeing recommended by agricultural extension services are not respected. Moreover, farmers on type C and type D farms perform paid services for farmers of type A and type B when the latter are carrying out their ploughing and hoeing. All this has a negative effect on yields on farms of types C and D.

Bearing in mind these production costs and the decreasing yields in Mali's cotton-growing zone,¹³ the reduction of cottonseed prices for the producer from FCFA 210/kg to FCFA 160-175/kg raises some questions, specifically:

- Will the new price range allow producers, on average, to make a profit?
- How will farmers respond to the adverse price trend?

¹³ Nubukpo and Keita, 2005.

The new price fixing mechanism and the profitability of cotton growing

Calculations of production costs for Malian cotton converge around a range of FCFA 154 to FCFA 179 per kilo of top-grade cotton, with an average of FCFA 166/kg. Thus, the application of the range defined by the new price mechanism runs the risk that farmers will be operating at a zero or negative margin because the purchase price will be, for the most part, lower than the production costs. The general situation of the industry tends to reinforce this forecast. The Malian cotton sector is suffering from a weakening of support to farmers by the CMDT,¹⁴ a rapid rise in prices of cotton inputs (a consequence of the reduction in subsidies granted by the CMDT) and falling cotton yields. In this regard, the only conceivable rationalisation of production costs lies in a reduction of returns to the labour force. This is worrying, given official commitments to poverty reduction.

The real problem in evaluating production costs lies in the estimation of family labour costs. This has long been the major point of disagreement between producers and the CMDT in fixing prices for producers, even under the old mechanism. In Mali, production is centred essentially on family labour, which in turn is at the root of the fragmentation of farms in the cotton zone. While the majority of farms use paid labour (see Table 3), this labour is mainly hired on a casual, task-specific basis..

Table 3: Percentage of cotton farms using paid labour

Use of paid labour	Percentage
Yes	79
No	21
TOTAL	100

Source: CAMFPGP, growing season 2003/04

Paid labour is hired mainly during hoeing (up to 26 per cent) and during the cotton harvest (60 per cent). Thus, a potential decrease in farmers' incomes would have a negative impact on both operations. Hoeing is essential to ensure a good yield, while extra labour at harvest-time guarantees a better quality of cottonseed (by preventing last-minute pest attacks).

¹⁴ The current trend is for a "re-centring" of the CMDT's management solely on activities linked to cotton marketing.

Response of Malian cotton farmers to falling prices

Within the framework of the January 2005 IER/CMDT study group, which looked at the reasons behind declining yields in the cotton-growing zones of Mali, the sub-group on socio-economic aspects identified some foreseeable elements of the impact on producers of a decrease in the price of cotton, through interviews carried out with a sample of farmers in the cotton-growing areas. Farmers' motivations for continuing to produce cotton and their likely responses to decreasing prices, confirmed during interviews carried out in the framework of the Oxfam study, are particularly interesting.

Four main reasons were put forward by producers to explain their interest in continuing in cotton production, despite the difficulties encountered:

- The benefits of monetary income in the context of a minimum guaranteed purchasing price for cottonseed;
- Access to different kinds of credit, which are generally granted on the basis of guarantees linked to cotton production;
- The positive knock-on effects of growing cotton in year 'N' on the yields of cereal crops in year 'N+1';
- The great instability in prices of cereals, giving rise to uncertainty in incomes derived from cereal production.

Regarding the first motive, the producers clearly indicated their interest in the security offered by cotton-growing in terms of income stability, due to the guaranteed purchase price system for cottonseed, the guaranteed market for cotton and the relative rapidity in payment to growers by the CMDT.

Furthermore, cotton production provides indispensable collateral for access to credit in the CMDT zone, for inputs and equipment or for consumption, in terms of BNDA (*Banque Nationale de Développement Agricole*) loans or simply in terms of micro credit.

The second reason for persevering with cotton production seems a determinant factor in understanding the rationale for farming practices in the cotton zone. For example, the input credits given for cotton can also be used for cereal production. Farmers are wholly dependent on the cotton industry for access to credit and this engenders perverse effects, as some farmers admit. Performance in terms of improved cotton yields is not always the primary objective of the farmers, notably the less well-equipped ones; rather, what keeps them in cotton production are the benefits from their membership of the "cotton club", particularly access to credit which allows them to produce cereals, thus ensuring food self-sufficiency.

The pertinence of this reasoning is underlined by the third motive – the knock-on effects of cotton production on cereal yields. Indeed, the use of chemical or organic inputs and the preparation and rigorous maintenance of the soil that is required by cotton production give rise, during crop rotation, to soils with higher fertility, which in turn means good cereal yields.

The final motive put forward by producers is the instability of cereal prices. Ironically, the better the harvest and the higher the volume of cereals marketed, the lower the prices become. The producers are wary of this cereal price instability, and it seems that cereal production serves less to generate monetary income than to ensure food self-sufficiency for rural households.

Overall, cotton producers are obviously unhappy about the fall in the initial price for cottonseed. However, for the most part, they have restated their intention to grow cotton, despite the decrease announced in the price, and to adapt themselves to this situation.

One of the responses envisaged by producers is a future reduction in cotton acreage.¹⁵ This response seems logical since, in addition, the costs of inputs, particularly those of fertilisers and phytosanitary products, have been continuously rising. This perspective is not, however, unanimously shared. Recent decisions by the competent authorities suggest that farmers can count on a fall of 6 per cent in the cost of inputs, following decisions taken in this regard by the relevant authorities. In view of this, in some villages the trend seems to be rather to move towards an increase in land planted to cotton. This willingness of producers to increase their production acreage nevertheless runs up against the problem of land pressure, as well as that of a lack of family labour and/or the cost of external labour. They have minimal room for manoeuvre on remuneration for labour. For these reasons, some cotton producers do not rule out being forced to sell some of their livestock to meet repayments of input credits, if the current trend should continue. Similarly, an extension of the acreage planted to cereals has been envisaged by some producers as a possible response to the fall in cotton prices, due to the amount of work that cotton-growing demands.

To conclude, the price level seems less important than the minimum guaranteed price as a factor in whether or not producers decide to grow cotton. The price level has a greater impact on decisions regarding the acreage sown respectively with cotton and cereals.

However, it should be stressed that too wide a gap between the initial price and the final price paid to producers would be likely to undermine farmers' decisions, in so far as the initial price is announced in April of year N, before planting, while the final price is paid in July of year N+1, a good while after the harvest. One current argument that is employed in defence of the mechanism for determining the purchase price of cottonseed is that the initial price is much less relevant to the farmer than the higher final price. While this protects the CMDT in the case of a reversal in world markets, it underestimates the income shortfall in terms of lost cotton production (and export receipts) for Mali, which might arise from the announcement of a price that acts as a disincentive for the producers. It would be preferable to minimise the gap between the initial price and the final price, in order to optimise cotton production levels and thereby facilitate forecasts that are both viable and stable for the producers.

¹⁵ This option has also been accepted in the conclusions of the DNSI study (2003), which estimated a reduction in acreage of between 10 per cent and 25 per cent and a decrease in cotton production of 25 per cent for a fixed purchase price of FCFA 160 per kilo of cotton.

Macroeconomic impacts

To estimate the macroeconomic impacts of the decrease in cottonseed prices, several scenarios have been tested, on the basis of data extracted from a social accounting matrix. The different scenarios are based on hypotheses of the prices for producers and the price elasticity of supply.

Scenarios of decrease in price for the cotton producer, and their impacts

Scenario 1: Impacts of applying a price for the producer of FCFA 160/kg, with no change in the volume of production

By doing a simulation of the effects of fixing the price of cotton for the producer at FCFA 160/kg i.e. a 24 per cent reduction in the price for the growing season 2004/05, the following results were obtained from a social accounting matrix.

In terms of effects, all else being equal, the loss of revenue for producers would be in the range of FCFA 29.5 billion.¹⁶ Supposing that this reduction results in a decrease in consumer spending by households, the secondary effects on the Malian economy would be the following:

- A decrease in income for other households (non-cotton growing) of FCFA 18 billion;
- A decrease in imports of FCFA 4.8 billion, leading to a decrease in the state's receipts, in terms of various taxes, of around FCFA 3.3 billion;
- A loss of revenue for industry of FCFA 11.3 billion.

For the Malian economy as a whole, the probable loss suffered following a fixing of the purchasing price for cottonseed at FCFA 160/kg is estimated at FCFA 62.32 billion, which is the equivalent of a reduction in GDP of 1.86 per cent.

Scenario 2: Impacts of a reduction in cotton production of 25 per cent, following the application of a price to the producer of FCFA 160/kg

Supposing that, following a decrease in the price for the producer of FCFA 50/kg, producers respond by reducing cotton production by 25 per cent (hypothesis put forward by DNSI, 2003), total receipts from exports would diminish by FCFA 53 billion. This result is reached by supposing that the fibre is sold, at minimum, at the CIF cost price of FCFA 858.48/kg.¹⁷

The secondary effects for the Malian economy of this downturn in cotton production would be the following:

- The producers' income would decrease by FCFA 36.8 billion, all other things being equal;
- The income of other households (non-cotton growing) would decrease by FCFA 22.8 billion;
- Imports would go down to the tune of FCFA 5.9 billion;

¹⁶ The annual production of cotton seed in Mali for the growing season 2004/05 being 589,562 tonnes (source: CMDT/DPA, July 2005).

¹⁷ Cf. report by A. Wadell, 2005, Plan de sortie de crise.

- Following this decrease in imports, government fiscal receipts would decrease by FCFA 4 billion;
- There would be a loss of revenue to industry of FCFA 14 billion.

Overall, in this scenario, the total losses for the Malian economy can be estimated at FCFA 136.5 billion, i.e. a reduction in GDP of 3.9 per cent.

Scenario 3: Impacts of applying a price for the producer of FCFA 175/kg

If the price for the producer is fixed at FCFA 175/kg, without a downward adjustment in production, the following repercussions can be expected for the Malian economy:

- A lowering in producer income of FCFA 20.6 billion;
- A loss in income for other households of FCFA 12.7 billion;
- A reduction in imports of FCFA 3.3 billion, leading to a loss of receipts for the state in terms of port duties of FCFA 2.3 billion;
- A loss of revenue for businesses of FCFA 7.9 billion.

The total loss anticipated for the Malian economy as a result of fixing the price to the producer at FCFA 175/kg would be in the region of FCFA 43.6 billion, i.e. a reduction in GDP of 1.3 per cent.

Summarising the different scenarios tested, it is obvious that fixing the price for the Malian cotton producer at FCFA 160/kg is likely to provoke negative repercussions that are more than proportional for the Malian economy as a whole. These consequences would be further aggravated if this price reduction were accompanied by a reduction in cotton production, as a reaction from the producers. The loss of export receipts from cotton are estimated at a minimum of FCFA 53 billion, for a price to the producer fixed at FCFA 160/kg and a downward adjustment of 25 per cent in production.

Indeed, the most recent official study available of the impact on the economy of a price reduction for cotton¹⁸ estimates “the reduction in acreage as being between 10 and 25 per cent, and as 25 per cent the loss of cotton production for a purchase price fixed at FCFA 160 per kilo of cotton”. It also estimates that “a reduction in prices by 10 per cent would bring about a decrease in cottonseed production of 5 per cent and that would lead to a shortfall of FCFA 17.7 billion for the national economy. In the instance where the loss of production reaches 50 per cent, as was the case in 2000/01, the losses for the economy would rise to FCFA 113 billion”.

The negative impacts on the Malian economy are significantly reduced if producer prices are maintained at a higher level. Indeed, with a price for the producer in the region of FCFA 195/kg, the consequences for the national economy would be reduced to a total loss of around FCFA 18.7 billion, which is almost the same as the deficit that

18 DNSI, 2003

the cotton industry recorded in November 2004. In other words, in attempting to absorb the industry deficit of FCFA 18 billion by reducing the price to the producer to a level below FCFA 195/kg, the losses generated for the economy as a whole risk being greater than the initial deficit. It would seem clear therefore that, even though the need for the Malian cotton industry to tackle the question of the world market price appears justified in terms of the accumulated deficits of the industry, the fact remains that the interests of the industry and of the economy as a whole seem to lie in supporting the price to producers at a reasonable level.

Methods for further analysis of macroeconomic impacts

The use of a social accounting matrix for Mali permits an overall evaluation of the probable impacts on the economy of a reduction in the purchase price of cottonseed. However, to better understand this impact evaluation, it is necessary to have access to an econometric or calculable general equilibrium model that allows examination of the channels by which this reduction could affect the four indicators traditionally used by the International Monetary Fund in its performance reviews of macroeconomic policies: i.e. real sector, table of government finance statistics (GFS), balance of payments and monetary situation.

The effects at the real sector level are discussed above. Regarding the impact on the GFS table, the consequences of the decision to reduce the producer price can be grasped through its implications for the budget of the Malian government. Initially, the budget will react positively to a reduction in the direct or indirect subsidies usually allocated in order to reduce the industry deficit. However, in the medium term, a reduction of revenue from the industry could give rise to a loss in fiscal revenues. Furthermore, a sustained rural exodus cannot be discounted, with the likely demands that this will place on government social expenditures in urban areas.

Equally, Mali's trade balance could suffer from a reduction in the price to cotton producers, due to the loss in production volume that could ensue. In all likelihood, cotton production levels should not significantly change for the 2005/06 growing season. However, as of the 2006/07 season, it is highly probable that the price elasticity of supply will change, with the consequences that Scenario 2 has tried to quantify.

As regards the monetary situation, which is directly linked to the balance of payments, if there is a decrease in cotton export receipts, this could translate into a decrease in foreign exchange and therefore in currency reserves for the BCEAO (Central Bank of West African States) and WAEMU. A reduction in net external asset holdings, being a component of the counterpart of money supply, could translate into a loss in the coverage rate of monetary emission, in the context where three of the eight WAEMU countries (Benin, Burkina Faso and Mali) derive the majority of their foreign exchange earnings from cotton exports.

Conclusion

The analysis of the transmission effects of a reduction in the cotton purchasing price on the Malian economy as a whole has been possible through the construction of a social accounting matrix. It is clear that the attempt to reduce the deficit in the cotton industry through a drastic cut in the price paid to the producer risks having depressive effects on the Malian economy, the sum of which could prove to be higher than the budgetary savings envisaged in the first instance, as has been shown in the different scenarios envisaged.

Indeed, the justifications given for introducing the new price mechanism – on the one hand, the need to link Malian cotton producers to the world market and, on the other, the projection of a rapid reduction in the dual deficits of the CMDT and the Malian government – seem to have overlooked the potentially negative effects linked to the application of this mechanism.

Furthermore, the method of calculation for the range adopted needs to be clarified, with particular regard to the commonly held rules for fixing prices. Even if we accept that the new mechanism effectively aims to link the producer price to the global price, thus sanctioning the liberalisation process of the industry, the fact that the world price itself results from an imperfect and unfair working of the international cotton market puts this liberal argument into perspective. On the contrary, the introduction of such a mechanism, supported by the World Bank and validated by the Malian authorities, could exacerbate the existence a dual power imbalance: in the first place, between the cotton-growing countries of Africa, which are price takers on the global market, and other countries that subsidise their producers (the EU, the USA, China, etc.); and, in the second, between Malian cotton growers and other stakeholders in the industry (the CMDT, the state).

In addition, the perspective of reducing the dual CMDT/government deficit is a short-term one, based strictly on accounting preoccupations. This is in contradiction with a closed economy approach, based on recognition of the multiplier effect of cotton.¹⁹ It goes without saying that the scale of this multiplier effect depends on the possibilities available for financing the industry deficit. This means that the risk cannot be ignored of an “eviction effect” caused by the transfer of resources to cotton from other sectors, particularly in a context where some donors increasingly favour budget support, to the detriment of targeted aid to specific sectors.

Finally, due to the loss of income for cotton farmers and therefore for rural populations as a whole, the new pricing mechanism will probably contribute to a rise in poverty levels in the cotton-growing areas of Mali. Such an observation is worrying in view of the objectives that are officially sought by both the Malian authorities and the Bretton Woods institutions – though both have nevertheless validated this new mechanism. The search for greater coherence between, on the one hand, the desired effects of policies and the decisions actually taken and, on the other, the various policies of the government (macroeconomic, sectoral, etc.) is essential if poverty is to be reduced in Mali.

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The results obtained lead to the following recommendations:

- The range determined for the purchase price for cottonseed from the growers needs to be revised. In particular, the lower limit should be increased, with the two-fold concern of: a) taking into account the adverse effects on the whole of the Malian economy due to the setting of an initial purchase price that does not take into production costs, and b) reducing the gap between the initial price and the final price, thus guaranteeing a greater stability for producers and relative accuracy in the drawing up of their production forecasts.
- Article 8 in the text of the new mechanism, regarding the possibility of reducing the initial price during the growing season, should be withdrawn. Removing the minimum guaranteed price is likely to cause cotton to lose its stabilising role in an environment that is otherwise full of risks, with potentially negative consequences for the sustainability of the whole cotton production system.
- A support fund should be created that could guarantee a purchase price for cottonseed for producers. This fund is particularly justified as it minimises the adverse effects of a price to the producer that is too low and, in particular, too unstable. It could be financed, over and above possible margins from the cotton industry, by a national solidarity tax, since cotton is so important for Mali, or by funds coming from international aid and, possibly, from emergency aid funds to the cotton industry, in line with the claims made at the WTO in the framework of the Sectoral Initiative in Favour of Cotton.

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