Executive summary .......................................................................................................................... 1
Introduction .................................................................................................................................. 2
International cotton, textile, and clothing markets ........................................................................ 4
    Evolving global market trends .................................................................................................. 4
    International and Malian fiber price trends ............................................................................. 6
    Access to export markets ......................................................................................................... 8
Industry outline in Mali .................................................................................................................. 9
    Production ................................................................................................................................ 9
    Ginning ..................................................................................................................................... 9
    Fiber exports .......................................................................................................................... 10
    Fiber processing ...................................................................................................................... 11
    Clothing production ................................................................................................................. 14
    Training .................................................................................................................................... 14
Benchmarking costs of doing business in Mali ............................................................................. 15
Technical and management analysis of operations ........................................................................ 19
    Ginning ..................................................................................................................................... 19
    Continuous processing ............................................................................................................. 20
    Informal sector ......................................................................................................................... 22
Problems for future development of the industry .......................................................................... 23
    Workforce development .......................................................................................................... 23
    Domestic cotton fiber price subsidy ......................................................................................... 24
Recommendations and conclusions ............................................................................................... 25
References ..................................................................................................................................... 29
Contacts made ............................................................................................................................... 30
Annex: Investment evaluation criteria ............................................................................................ 31

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The members of the team express their gratitude to all government officials and business men and women who kindly shared their thoughts and ideas with them while in Mali.
Executive summary
A number of sector analyses are being carried out for the Malian Ministry of Industry, Commerce, and Handicrafts under the direction of AIRD with support from the U.S. Agency for International Development’s Africa Trade and Investment Program. This report represents the findings of the team responsible for evaluating investment prospects for increasing value-added from cotton, a key agricultural sector for Mali.

In seeking investments to dynamize its textile sector, Mali offers competitively priced raw materials, a relatively inexpensive workforce, and rich cultural traditions in spinning, dyeing, weaving, and fabric and clothing design. It is also politically and socially stable and has undertaken many economic reforms to liberalize commerce and trade. On the other hand, it is a landlocked country whose infrastructure is stretched, with power and transport infrastructure deficiencies among the most notable. Its economic culture favors small-scale, artisanal craft production over large-scale, assembly manufacturing, and its entrepreneurs are more accustomed to accumulating profits on the basis of local or regional trade or arbitrage opportunities rather than creating manufacturing businesses to respond to global market opportunities.

Of course, being landlocked has not prevented Switzerland, or even Botswana, from developing its economy, and economic cultures do certainly change as incentives regimes evolve. Some of Mali’s apparent infrastructure deficiencies are actually the result of economic growth, growing pains induced by a rebound in Mali’s economy following the 1994 devaluation of the CFA franc.

Economic issues which pose some concern for future development of Mali’s textile sector include the need to understand evolving trends affecting organization and competitiveness in the international textile and clothing industries, the present over-capacity in world cotton fiber markets which threatens world fiber price stability and thus Mali’s terms of trade and domestic cotton fiber price stability, upcoming changes in regional and international trade agreements which will change Mali’s access to export markets for textiles and clothing, workforce development needs for improving the caliber of workers available for export-oriented manufacturing, and the most strategic use of subsidies for achieving employment and developmental objectives.

The technical consultants advise that, aside from spinning operations, major new investments in plants and equipment into the downstream processing sectors would not be merited at this time. They are intensive in their capital requirements, but more importantly also necessitate the creation of international marketing and production partnerships which are not likely to find their way into Mali in the short run, given the many infrastructure and workforce constraints encountered.

Instead, practical recommendations focus on potential efficiency improvements to existing activities. Improved ginning profitability can be achieved by a conscious effort to recover ginning wastes, electronic grading of fibers to eliminate the potential for bias, and shipping cotton-wrapped bales (rather than polypropylene, as presently done) to the world market. While one textile mill is essentially non-operational and of limited salvage value, another could greatly improve the profitability of its activities if it increased its level of operation to 100% capacity use. This could be
accomplished by producing cotton bale wrapping and greige fabric for sale to industrial product markets throughout the world.

Mali’s informal spinning, weaving, dyeing, tailoring, and embroidering enterprises produce goods of significantly high quality. Successful international marketing of these goods would require an innovative approach to achieving economies of scale in input procurement, production, and international marketing via the creation of a recognized artisans guild, while preserving the unique quality niches of design and creativity that distinguish Mali’s informal sector artisans.

Malians are creative, hard-working people, with a long cultural tradition embracing textile and clothing design and production, and with historic trading connections to distant markets across the African continent. In the longer run, once exposed to international ways of doing business, we are confident that new product and market ideas will be generated by Malians themselves, excited to link up with international partners and join the international marketplace as competitive suppliers of high quality fabrics, designs, household textiles, and garments to internationally savvy consumers the world over.

Introduction
In today’s global economy, there is greater choice than ever in terms of with whom to do business. Many developing countries, including Mali and others in the CFAF zone, have been lauded by the international development donor community for having successfully carried out stabilization and structural adjustment programs and implemented significant economic reform. In these “star pupil” countries, exchange regimes have been reformed and currencies now suffer no unusual overvaluation, inflation has been brought under control, trade taxes have been simplified and reduced in conformity with post-Uruguay Round commitments to the World Trade Organization, and price policies have been liberalized in order to reduce distortions faced by producers. Prices, to paraphrase the oft-quoted adage, are now “right.” And yet, many of these same developing countries are stymied by their experiences that foreign direct investments do not automatically flow in as a response to these reformed economic conditions. These same countries now ask themselves what have they not yet gotten right?

With so many countries having satisfied these first order conditions, it is also clear that U.S. or European firms also evaluate potential partners for broader qualitative factors such as political and social stability, the existence of preferential trade relations with the home market (such as the North American Free Trade Agreement or the Lomé Agreement), production and marketing infrastructure, the transparency of the regulatory environment, the sophistication of local labor and management skills, and local labor working conditions.

Most U.S. firms monitor potential new supplier markets on a regular basis, especially as labor costs in Asia have been on the rise. While all U.S. clothing manufacturers/importers are active in Asia and Latin America, few have working relation with sub-Saharan African countries. Although it is understood that production costs in sub-Saharan Africa may be lower, longer and less reliable

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1 For a recent review of U.S. electronics and apparel firms’ approaches to choice of developing country commercial or production platforms, see McMillan, Pandolfi, Salinger, 1999.

2 Implementation of standards is a key factor of which developing country firms need to be aware. Although internationally accredited labor and environmental standards have not yet been established, evidence of internationally acceptable procedures is increasingly expected not only of multinational corporations but also of their subcontractors and affiliates. See Debora L. Spar, “The Spotlight and the Bottom Line: How Multinationals Export Human Rights,” Foreign Affairs, volume 77, No. 2 (March/April, 1998): 7-12.
delivery times as well as lower quality of the product do not make up for the difference in final price. Nevertheless, especially in the face of rising production costs in Asia, a few firms are at least exploring the possibility of dealing with manufacturers in Africa, finding its cost potential quite interesting.

Mali is a leading world producer and exporter of ginned cotton fiber, the second-ranking exporter from Africa. With annual fiber production of over 200 million tons, Mali is presently Africa’s second largest producer, after Egypt. However, Malian production represents but 1% of total world production, compared with the world’s five leading producers which are China, the United States, India, Pakistan, and Uzbekistan; see table below.

<table>
<thead>
<tr>
<th>World Cotton Fiber Production, 1997/98 (1000 metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
</tr>
<tr>
<td>United States</td>
</tr>
<tr>
<td>India</td>
</tr>
<tr>
<td>Pakistan</td>
</tr>
<tr>
<td>Uzbekistan</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
| **Subtotal**   | 14055| 70%   | **World total** | 19945

Source: USDA, FAS

Value-added processing activities beyond ginning are quite limited in Mali. Only about 1 percent of total domestic fiber production is transformed, and all is for local consumption, i.e. no textiles or clothing is exported. In a country where labor supply is abundant and low cost, this lack of downstream processing seems a missed opportunity. The private sector is now recognized by Malians as a critical motor of economic development.

This report reviews prospects for commercial development of the textile sector. A review of recent trends in the international cotton, textile, and clothing industries is first offered, after which the current structure of Mali’s industry is outlined, followed by some benchmark costs of doing business in Mali with comparisons to other African countries. The technical and management prospects for creating a vertically integrated industry in Mali, covering spinning, weaving, dyeing, cutting, and assembling of cotton-based household furnishings and garments for world consumers, are evaluated. The report investigates two critical issues which may affect Mali’s success in attracting investments to establish new or renovate existing activities in this sector, namely those of workforce development and the domestic cotton fiber subsidy to processors. Recommendations are made at several levels: regarding new investments and value-added improvements in the industrial sector and new organization of the artisanal sector with an eye toward its integration into the global marketplace.

AIRD’s team, comprised of an economist, Malian private sector representatives, and technical textile advisors, visited Mali June 15-23, 1999. During their mission, they met with representatives of the cotton processing sectors (CMDT, ITEMA, COMATEX, as well as private cloth dyeing, weaving, and clothing manufacturers) and officials from the Department of Industry, the National
Investment Promotion Center, and the National Handicrafts Promotion Center. Recommendations focus on each stage of the cotton value-chain in Mali, including ginning, continuous processing (spinning and weaving), formal clothing assembly, and the informal textile and garment sector.

**International cotton, textile, and clothing markets**

A number of international economic issues affect the potential for Mali’s cotton value-added processing sectors. Evolving global market trends, falling international commodity prices, and changes in international textile and clothing trade agreements which regulate Mali’s access to export markets are all of potential concern as Mali seeks new investment in this industry.

**Evolving global market trends**

Textile and clothing industries used to be connected by a simple, linear industrial chain model. Natural fibers (cotton, wool) were spun into thread and woven or knit into fabric by textile mills, which supplied finished fabric to apparel manufacturers, who sold brand label clothing to retail outlets. Most industries operated in a fairly insular fashion vis-à-vis the global market, with low import penetration levels.

That linear model no longer suffices. Understanding changes in the structure and behavior of the industrial countries’ textile and clothing industries as they globalize, and the international policy environment conditioning that globalization, is key to figuring out how developing countries can plug into the seeming bounty of opportunities now available to them. A multiplicity of alternatives exist for cross-border interactions at each stage of the value-chain. Fiber, spun thread, greige cloth, finished fabrics, cut-up fabrics ready for assembly into garments, and finished garments, as well as machinery, spare parts, and trims (buttons, zippers, laces, etc.), now readily cross borders regionally or internationally as the textile-clothing industry has globalized.

The fiber and fabric end of the fiber-textile-clothing chain has become highly capitalized, in part due to the manufacture of synthetic or man-made fibers (itself an off-shoot of the petrochemical industry) and in part due to mechanization of spinning, weaving, and knitting operations which have reduced the need for manual labor. In addition to these technological changes, revolutions in the transportation and communications sectors, shifts in comparative advantage (shifting patterns of relative factor prices), market competitive forces, and government policy changes are evolving new industrial chain variations.

As the cost of doing business in industrial countries rises and comparative advantage shifts occur, U.S., European, and Japanese producers are abandoning high cost, domestic manufacturing and moving to lower cost production platforms in developing countries where cheaper wages are available. Newly industrializing countries of northeast Asia are experiencing the same phenomenon. As wages rose in Korea, for example, Korean manufacturers sought off-shore assembly platforms in Bangladesh, Indonesia, and elsewhere. Thus over time, developing countries experience increased global linkages to textile and clothing industries around the world.

The process of globalization was further aided by trade policies of the major producing and importing centers, which were originally designed to protect industrial producers. As the success of new developing country textile and apparel exports took hold, textile and apparel interests in

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3 See “Contacts made” at the end of this report for a full list of individuals interviewed.

4 Greige cloth is woven, unprocessed fabric, i.e. before any dyeing or printing processes are added.
developed countries grew increasingly protectionist. During the 1960s, efforts to contain textile and apparel trade were launched. However, increased product and market diversification outstripped policy makers’ regulatory abilities. Under the Multi-Fiber Arrangement (MFA) (1974 to 1994), textile and clothing importers established bilateral import quotas in a variety of individual product categories to restrict imports. These were imposed whenever a trading partner’s exports to its market threatened domestic market interests.

This system of regulated textile and apparel trade helped to spawn increased internationalization of production of these very products. As quotas were used up in one exporting country, international clothing entrepreneurs frequently sought new production platforms in which to establish commercial relations with existing manufacturers or even establish new manufacturing operations all together. Exports could grow quota-risk free from a new platform for some time, before attracting the attention of importers. This ‘quota-hopping’ behavior of the international clothing industry is one of the factors which has enhanced the establishment of clothing operations in developing countries.

Today, the MFA is dead and international textile and apparel trade is managed by the Agreement on Textiles and Clothing (ATC), signed as part of the Uruguay Round Agreements Act (URAA) when the World Trade Organization was created. The ATC lays out a process of liberalization of the bilateral import quotas over a ten-year period, from 1994 through 2005. The ATC specifies a minimum percent of trade to be liberalized in four stages. To date, liberalizing countries have emphasized lower valued products, raising some concerns among developing country textile and clothing exporters that the ATC’s final objective of complete liberalization of textiles and apparel trade will not be accomplished by 2005.

U.S. and European manufacturers are also lured off-shore by laws which offer tariff advantages to developing country producers who manufacture on the basis of U.S. and European made inputs. For example, apparel sewn abroad from U.S. manufactured and cut fabrics are only assessed an import duty on the foreign value-added contributed by the off-shore assembly process, or ‘outward processing traffic’ (OPT), as this arrangement is known. Mexican products now enter the U.S. virtually duty-free, under the North American Free Trade Agreement (NAFTA). Western Europe has similar outward processing trade provisions with North African and Eastern European partners. OPT takes place between Germany and Eastern European countries such as Poland and the Czech Republic, while France sends its fabrics to Mediterranean clients such as Morocco and Tunisia for processing. One interesting result of these tax provisions is the strong assertion of U.S. textile firms into the apparel assembly process, often working directly with retailers and bypassing apparel manufacturers all together. This leads to further interesting competitive shifts among actors in the industrial chain.

A number of consumer demand trends also drive changes in textile and clothing manufacturing. Products are increasingly differentiated into two large categories of clothing. ‘Commodity clothing,’ i.e. standardized sportswear, underwear, and outerwear, is increasingly manufactured abroad in large run sizes. On the other hand, higher valued ‘fashion clothing’ is produced in smaller sized runs, in an increasing number of mini-seasons, due to increasingly variable demand. Consumers also expect a

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5 This obligation applies to the four countries (or country groupings) which maintained restrictions under the MFA, namely Canada, the European Community-12, Norway, and the United States. It also applies to fifty-five other countries which chose to use transitional import safeguard mechanisms. The U.S. maintains bilateral textile agreements with non-WTO member trading partners such as China, Taiwan, Vietnam, and Cambodia.
wider range of purchasing options (traditional department stores, specialty shops, discount sellers, factory outlets, mail-order catalogues, Internet-based shopping), which puts further pressure on retailing margins. Only designers/merchandisers who can recognize and respond to consumer market demands and recognize evolving product niches will maintain their competitiveness.

The market implications of globalization for textile and clothing industries are several. On the one hand, the emergence of denim and khaki slacks and knit tops as near interchangeable commodities means that only producers capable of handling the large-scale orders placed by industrial country clients can expect to service this end of the market. On the other hand, in the face of such commoditization of clothing, smaller manufacturers of high quality, high value products who can offer unique wear opportunities to those wealthier consumers seeking differentiated, specialty fabrics and garments will also find a market. An intermediate approach to manufacturing is also evolving, whereby garments are being manufactured tailored to clients’ specific orders regarding size, style, and color, using ‘mass customization’ assembly line production techniques such as computerized ordering. Increasingly, all these businesses along the value-chain will need to develop specialized information technologies to manage input sourcing, order tracking, and information delivery to end-customers.

As a result of these changes, new commercial relationships are being developed between and among firms in different countries. For some, this still means direct investment relations, as when Levi-Strauss invests in a wholly owned subsidiary in Mexico, for example. However, many overseas activities of U.S. manufacturing firms today are increasingly trade-, not investment-, based. For example, today’s U.S. apparel firms are often merchandisers who design their products domestically and submit the designs to foreign factories or brokers for manufacture. While some outsourcing may take place with developed country partners such as Italy and Austria, the developing world is where most foreign suppliers of U.S. textile and apparel imports are located today.

International and Malian fiber price trends
A second important factor for consideration is expected international commodity price movements and their effect on Mali’s domestic cotton prices.

The sinking of international cotton fiber prices in mid-1999 to lifetime lows has important repercussions for Mali, whose unit export revenues from cotton will therefore likely decline over the coming year. Where the A index fluctuated between U.S. $1.30 and $1.75 per kilogram in the recent past, as of mid-July 1999 the October 1999 futures price in the U.S. (48.45 cents/pound on July 14, 1999, or less than U.S. $1.10 per kg) was at a lifetime low (see table below).

These world price developments are the result of an exceptionally good crop expected in the United States for 1999. Acreage is up, and yields look promising. Combined with high carrying stocks from last year, U.S. cotton supplies for 1999/2000 are expected to rise significantly, resulting in levels seen for only the third time in the last thirty years. In addition, foreign production is forecast to remain virtually unchanged, despite world prices which have consistently trended downward since their peak in 1995. While production is expected to decline in China by about 6 percent from 1998/99

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6 The Northern European A Index, published by the World Bank, is an average of the lowest five of fifteen price “quotes” from around the world for a specific type of cotton delivered to northern Europe. Prices for 1999 & beyond are World Bank estimates as of July 1999, and must be interpreted cautiously, given their long-term nature. The July 1999 price quote is the October 1999 futures price (New York).
levels, where there is an explicit policy goal to reduce cotton production, increases in Uzbekistan and Pakistan will largely make up for the difference. Production is also up across West Africa.

### World prices (Northern European A index)

<table>
<thead>
<tr>
<th>Year</th>
<th>c/kg (current)</th>
<th>c/kg (constant, 1990=100)</th>
<th>c/lb (current)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>181.9</td>
<td>181.9</td>
<td>82.7</td>
</tr>
<tr>
<td>1991</td>
<td>168.0</td>
<td></td>
<td>76.4</td>
</tr>
<tr>
<td>1992</td>
<td>127.8</td>
<td></td>
<td>58.1</td>
</tr>
<tr>
<td>1993</td>
<td>128.0</td>
<td></td>
<td>58.2</td>
</tr>
<tr>
<td>1994</td>
<td>176.3</td>
<td></td>
<td>80.1</td>
</tr>
<tr>
<td>1995</td>
<td>212.8</td>
<td>178.5</td>
<td>96.7</td>
</tr>
<tr>
<td>1996</td>
<td>177.3</td>
<td></td>
<td>80.6</td>
</tr>
<tr>
<td>1997</td>
<td>174.8</td>
<td></td>
<td>79.5</td>
</tr>
<tr>
<td>1998</td>
<td>144.5</td>
<td></td>
<td>65.7</td>
</tr>
<tr>
<td>1999</td>
<td>128.1</td>
<td>122.2</td>
<td>58.2</td>
</tr>
<tr>
<td>Jul-99*</td>
<td>110.0</td>
<td></td>
<td>50.0</td>
</tr>
<tr>
<td>2000</td>
<td>132.3</td>
<td>124.2</td>
<td>60.1</td>
</tr>
<tr>
<td>2001</td>
<td>136.7</td>
<td>125.3</td>
<td>62.1</td>
</tr>
<tr>
<td>2005</td>
<td>176.4</td>
<td>146.3</td>
<td>80.2</td>
</tr>
<tr>
<td>2010</td>
<td>191.8</td>
<td>140.7</td>
<td>87.2</td>
</tr>
</tbody>
</table>

Source: World Bank, Global Commodity Markets, various issues
Notes: Unlike all others, the Jul-99 price is an October 1999 futures price (New York).

Longer term, international prices are expected to rebound, as the Japanese and other Asian economies strengthen and consumer demand improves. Chinese authorities have announced their intention to lower their procurement price for cotton, which should reduce Chinese acreage by 4-5 percent and possibly shift its world fiber market position back from net exporter to net importer. The World Bank’s global commodity market department foresees current prices for fiber back in the 60-90 cents range over the next five to ten years.

Seed cotton prices in Mali are set before the agricultural season. The price is comprised of two elements. Of the total producer price of 185 CFAF/kg seed cotton, 145 CFAF/kg seed cotton is a fixed producer price and the remaining 40 CFAF/kg is referred to in official parlance as a *ristoune* (rebate). According to the *Compagnie Malienne de Développement des Textiles* (CMDT), the latter is a

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7 This is among the lowest producer prices paid in francophone Africa. Mali’s cotton producer price is up 85% in nominal terms and 26% in real terms (1997/98, compared with the 1990-93 average). Institut du Sahel (INSAH), “Sécurité alimentaire et filières agricoles en Afrique de l’Ouest, Enjeux et perspectives quatre ans après la dévaluation du Franc CFA: Filière coton,” Décembre 1998. For more description of cotton production, see Metzel et al.’s forthcoming analysis of the animal feed sector.

8 Farmers also receive 50 percent of the cottonseed ginned from their seed cotton in the form of cottonseed cake, highly prized as a livestock feed, as an additional compensation. Thus, if a farmer farms three hectares of seed cotton, the gross value of the three tons of seed cotton produced is 555,000 CFAF. From those three tons, assuming a 60% seed yield, approximately 1.8 tons of cottonseed are ginned, equivalent to about 720 kg of cake. Half of this, or 360 kg of cake, is currently worth about 58 CFAF/kg or about 21,000 CFAF in the Malian marketplace, for a revenue supplement of about 4%. The world market price of cottonseed cake, however, is less than 50 CFAF/kg (presumably due to trade restrictions on cake imports into Mali). The average world price for cottonseed cake over the period 1995-1999 was about 47 CFAF/kg, while it is projected to be even lower at 41 CFAF/kg over the period 1999-2005. Source of cottonseed cake prices: Metzel et al. (forthcoming).
profit-sharing component, which it estimates on the basis of the previous year’s marketing campaign and pays to farmers at the time of sale of their seed cotton. The ristourne concept was recently introduced into the producer price formula in order to get farmers used to the idea of a producer price that fluctuates as a function of world prices. The fixed contract price, or contrat-plan, for the year 2000 planting season is expected to increase the rebate rate from the current 35 percent of CMDT profit to 45 percent of profit. However, as world fiber prices fall, so too CMDT’s profit will likely diminish and this may have a negative effect on the ristourne offered next year. Such downward producer price variability will test Mali’s commitment to its ristourne price policy.

Access to export markets
Several Sub-Saharan African countries presently benefit from a certain amount of foreign investment (usually from Asian sources) in their textiles and clothing industries. These are frequently made to take advantage of Africa’s preferential access to the European market. Hong Kong Chinese investments into Mauritius, South Asian investments in Kenya, and other examples in Botswana and elsewhere suggest that duty-free, quota-free access to textiles and garments to the European Union (EU) under the Lomé Agreement has helped to attract capital into these industries. The non-reciprocal, differentiated (relative to other developing countries) nature of the Lomé Agreement’s market access arrangements with African, Caribbean, and Pacific (ACP) clients of the EU is due to expire next year, however. The World Trade Organization has already indicated that the agreement is in contravention of global trade rules and the present waiver granted by the WTO to the EU will expire next year. While it is unclear what new arrangement may be negotiated between the EU and ACP countries, it is certain that privileged access by ACP countries will be discontinued, unless the ACP countries are willing to extend reciprocal privileged access by EU countries to their markets. This suggests that the EU market access incentive to invest in Sub-Saharan African industries for export will diminish.

A similar privileged market access opportunity is currently under consideration by U.S. lawmakers. The Africa Growth and Opportunity Act, passed in early 1999 by the lower house of the U.S. Congress, would offer duty-free, quota-free access to the U.S. market for textile and apparel exports from Sub-Saharan Africa. The bill is being strongly contested, however, by American textile and apparel industry lobbying groups. In any event, the quota-free provision would offer only short-term advantage to textile and apparel exporters, in light of the fact that the Agreement on Textiles and Clothing is due to phase out all bilateral quotas by 2005. After that, Asian exporters will have no quota-related incentive to seek off-shore production platforms. On the other hand, as labor costs continue to rise in Asia, investment in lower cost platforms will become increasingly attractive. Some evidence of these shifts is already witnessed in the textile and clothing industries, with Asian investors moving into Mauritius, Madagascar, Botswana, and South Africa.

After 2005, assuming that textile and clothing quotas are eliminated, access to export markets will be regulated by duties, not by quotas. The NAFTA agreement has encouraged foreign investments into Mexico from Asian and European interests seeking duty advantages into the U.S. market, thus shifting significantly the sources of clothing imports into the U.S. from Asia to Mexico. It is thus clear in Mali’s interest to pursue a reciprocal regional trade agreement with Europe and other possible partners in order to secure such advantages and further encourage investment into labor-intensive manufacturing.
Industry outline in Mali

Production
Malian cotton production has soared in the last few years, mostly as a result of the 1994 devaluation of the CFA franc, which improved producer prices dramatically. From below 300,000 tons of seed cotton in the early 1990s, Mali now produces close to 500,000 tons annually (1999/2000 production is expected to be on the order of 600-700,000 tons), due mainly to area expansion.

Smallholder peasant production involving some 230,000 farmers on 8-10 hectare farms (cotton plots of 2-3 hectares) is organized in Mali by a CMDT, which extends a full technical package to producers (seed, fertilizer, pesticides), and has monopoly control over domestic marketing, ginning, and the sale of fiber and ginning by-products.³

<table>
<thead>
<tr>
<th>Year</th>
<th>Farms (#)</th>
<th>Total area (hectares)</th>
<th>Area per farm (ha/farm)</th>
<th>Total production (tons)</th>
<th>Per hectare yield (tons/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
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<td>1998</td>
<td>157877</td>
<td>468381</td>
<td>2.97</td>
<td>483680</td>
<td>1.033</td>
</tr>
</tbody>
</table>

Source: CMDT, Rapports annuels

Yields have fallen from 1500 kg/ha seed cotton to just over 1000 kg/ha, but are programmed to increase to 1300 kg/ha by 2002.¹⁰ The reduction in technical efficiency is likely due to a combination of erratic rainfall patterns (late onset), the increase in chemical inputs costs caused by the devaluation, and competing pressures for food crop production. As part of the Ministry of Rural Development in Mali, CMDT is responsible for the entire farming system in the regions where cotton is produced, and its management is sensitive to the need for farmers to assure their food crop supplies. Although increasing fiber exports are welcome, CMDT does not want this to come at the expense of adequate food production.

Ginning
At the processing level, seed cotton ginning occurs in seventeen industrial units throughout the production zone and normally takes place from November through April (180 days). However, with increased seed cotton production, the length of the ginning season has grown from 188 days in 1994/95 to 232 days in 1997/98. Fears of inadequate ginning capacity has led to the planning of

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³ CMDT is majority held by Malian state interests, with a 49% share held by the French sister company, CFDT.

¹⁰ Average world yields are 575 kg/hectare; World Bank, Global Commodity Markets, July 1999.
four more gins, one of which is already under construction. This would appear to be a higher cost alternative to increased amortization of existing ginning capacity via the construction of protected storage capacity at the gins.

Production of 220-kg bales of fiber in 1997/98 was nearly 1 million (977,202 bales). These are humidified, laboratory tested (manually for now; electronically expected in the future), coded, and wrapped in polypropylene. This poses a problem for international processors, as the polypropylene can disintegrate and negatively affect spinning and dyeing qualities of the fiber. Polypropylene sacs are also used by farmers for harvesting seed cotton, introducing the potential for contamination at an earlier stage in the value-chain as well. Each bale’s characteristics are registered into a national database, managed by CMDT, in order to be able to respond rapidly to international purchasing requests by fiber quality.

Malian fiber is reputed to be of good quality, long length, good color, with a minimum of irregularities. The Institute of Rural Economy in Mali undertakes varietal research in collaboration with CMDT. No more than two or three varieties are extended in any given year to Malian producers, although variety performance is monitored closely on-farm and at the ginning stage, and modifications may be made at any time.

Fiber exports
The CMDT marketing campaign first assures domestic market requirements (minimal, around 1% of total fiber production), the rest being available for export to world markets. Customer requests are matched against available supply according to the CMDT, supplies are accumulated, and shipments are sent out.

<table>
<thead>
<tr>
<th>Mali Cotton Fiber Exports, 1997/98</th>
<th>Metric tons</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>34852</td>
<td>18%</td>
</tr>
<tr>
<td>Thailand</td>
<td>32850</td>
<td>17%</td>
</tr>
<tr>
<td>Brazil</td>
<td>15100</td>
<td>8%</td>
</tr>
<tr>
<td>Portugal</td>
<td>15095</td>
<td>8%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>15030</td>
<td>8%</td>
</tr>
<tr>
<td>Rest</td>
<td>80412</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>193339</td>
<td>100%</td>
</tr>
</tbody>
</table>


Presently, ninety-eight percent of Mali’s fiber production is shipped to global markets. About one-third of total exports goes out by rail from Bamako to Dakar (containerization taking place in Bamako), and the remaining two-thirds is containerized at the ginnery and shipped out by private truckers in 30-35-ton trucks to Abidjan. Transportation costs are 40 CFAF/ kg on both axes.

11 They are located in the following areas (number of ginneries indicated in parentheses): Bamako (1), Fana (1), Dioïla (1), Ségou (1), Kimpimana (1), Koutiala (4), Karangana (1), Kigna (1), Sikasso (2), Koumantou (1), Bougouni (2), and Kita (1). The additional units will be located in Oualassaibou, Kimpimana, Bla, and Kita.

12 Previously, bales were trucked to warehouses in Dakar or Abidjan and containerized there once a sufficient volume had arrived; advance containerization in Mali saves on these storage costs.
CMDT sells 95% of its fiber overseas via the international brokerage services of Compagnie Cotonnière (COPACO), the exclusive international agent of CFDT, for which it is paid a commission of 0.75% of sales; the remainder for export is sold privately by CMDT to international customers. COPACO sells to a large diversity of international clients on Mali’s behalf. Among Mali’s largest cotton export clients last year were Italy and Thailand, jointly accounting for about one-third of Mali’s cotton exports. Nearly 60 percent of exports in 1997/98 went to five countries; see above.

Mali’s fiber enjoys a good reputation internationally. Two-thirds of Mali’s exports in 1997/98 were classified as one of the top five Malian grades (Sarama, Juli/S, Juli, Kati/S, Kati, Roky). Apart from Sarama, which is considered top grade, the others are bought at slight price discounts on the world market, ranging from 0.5 to 2.5 cents/lb off the world price (65-75 cents/lb in 1997/98). The weighted average in 1997/98 of the discount received for two-thirds of the exports was less than 1.8 cents off the A Index (-2.45 cents/lb is the weighted average discount for all of Mali’s exports).

**Fiber Processing**

Despite recognition by the Ministry of Industry, Commerce, and Handicrafts (MICA) that Mali needs to focus on flexible, large-scale production for the world market, no value-added processing for export markets is presently undertaken in Mali’s cotton sector.

At the artisanal processing level, cotton is cleaned and spun by hand by villagers into thread for processing by pedal weavers into narrow strips of cloth. Some of this is quite basic, and ends up being pieced together into sheets for hand painting using colors made from roots and clays into traditional Malian “mud cloth,” or *bogolan*. Most of this is sold into the domestic and foreign tourist markets as cloth; a small portion is further transformed into finished household furnishings or garments for the same markets. An unknown quantity is taken out of the country informally for sale in Europe and the U.S. Another portion of the hand woven market is processed from dyed cotton thread into strips of vibrant fabric, and mostly pieced together into *pagne*-sized wraps. Some of this latter is woven with a seersucker look. Despite the present lack of formal industrial development in the cotton value-added industries, Malians have a long cultural tradition in spinning, weaving, dyeing, tailoring, and embroidery.

In the formal sector, two textile firms exist in Mali at the present time, ITEMA (public, headquartered in Bamako) and COMATEX (former state enterprise, based in Ségou). ITEMA, was established in 1971 as a para-public enterprise with 80 percent private French participation. In 1980, the French group ceded its portion to private Malian business interests, with the Malian government retaining its 20 percent. Its production capacity is largest in the area of printing (15 million meters, 50 inch width fabric per year), with smaller spinning and weaving capacities. The mill was apparently conceived to import greige fabric at a CIF cost equal to, or lower than, ITEMA’s own cost-price of production, and print for the local market. In a normal production year, the overall capacity use rate was about 75 percent. However, ITEMA has been in serious financial difficulty of late, culminating in a recent major shift in top management. Operations are particularly hampered by lack of regular electricity supply (available only 3-9 hours out of every 24, despite ITEMA’s attempt to negotiate an agreement with Energie du Mali (EDM) regarding regularization of electricity delivery), outdated equipment, and labor issues.

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14 Conversation with Mr. Adama Konate, Director of Industry, MICA, Bamako.
machinery, and capital constraints. The company is still saddled with debts accumulated during 1991-94 when it was closed due to external competition from the overvaluation of the CFAF and political unrest. Upon reopening in 1994, no operational credits were given to the firm.

### Evolution of Cotton Products Production

<table>
<thead>
<tr>
<th>Year</th>
<th>Thread (tons)</th>
<th>Greige Fabric ('000 m2)</th>
<th>Printed Fabric ('000 m2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COMATEX</td>
<td>ITEMA</td>
<td>Total</td>
</tr>
<tr>
<td>1989</td>
<td>400</td>
<td>350</td>
<td>750</td>
</tr>
<tr>
<td>1990</td>
<td>400</td>
<td>350</td>
<td>750</td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>450</td>
<td>350</td>
<td>800</td>
</tr>
<tr>
<td>1996</td>
<td>470</td>
<td>370</td>
<td>840</td>
</tr>
<tr>
<td>1997</td>
<td>490</td>
<td>380</td>
<td>870</td>
</tr>
<tr>
<td>1998</td>
<td>500</td>
<td>450</td>
<td>950</td>
</tr>
</tbody>
</table>

Source: COMATEX and ITEMA authorities.

COMATEX, a vertically integrated textile plant, was created as a public company in 1967, with Chinese government assistance. At the beginning of the 1990s it experienced management and profitability difficulties, and was privatized in 1994/95. Presently, 80 percent of the company’s capital is owned by COVEC (a Peoples’ Republic of China parastatal), and 20 percent by the Malian government. COMATEX presently consumes about 1500 tons of fiber per year and supplies cotton thread to the Malian artisanal weaving market, on the order of 500 tons per year of thread (20,000 spindles), compared with a capacity of 600 tons. COMATEX’s weaving capacity is 15 million m2 of printed cloth per year, producing low quality “FANCY” pagnes (wraps) for the local market. Current production on 650 weaving stands (130 cm width) is on the order of 10 million m2 of printed fabric. They operate two 8-hour shifts per day, five days per week, and employ 1200 workers, who are supervised by about twenty Chinese expatriates. Their machinery is quite old (30 years or more), but functioning. A back-up generator provides electricity when needed. Management admits that labor productivity is low, but explains that it has experimented with various training and supervision schemes to see if it can be raised. While workers complained of heavy supervisor presence, these limited experiments suggested that worker productivity can be improved.

Competition from imports is an issue for both firms. While a 12-yard pagne used to sell for 8000 CFAF wholesale (8500 retail), the price has dropped to 7000 CFAF in order to stay competitive with imports. The latter sold for 7000 CFAF in the market last year, and 6000 CFAF in the market this year. COMATEX says it is barely holding on in the local market. ITEMA is not at all evident there.

Because of the financial difficulties encountered during the early 1990s, when Mali’s currency was sorely overvalued and low-cost Asian textile and clothing imports took over local markets, from which these firms have not yet recovered, the Government of Mali decided to offer special advantages to COMATEX and ITEMA in order to restore financial viability. The most important among these are:

- Full exoneration from all customs duties (including the CPS) on imported raw materials;
• Exoneration from payment of the BIC and license fees (contribution des patentes);
• Granting of a preferential purchase price (prix decession) of fiber from CMDT, reviewed annually; this price is presently 550 CFAF/ kg (for analysis of the preferential price, see discussion, page 31).

Despite any raw material cost advantage, very little Mali-produced cloth is visible in the Bamako market. Presently nearly 4,000 pieces (xx m2?) of fabric are imported, including bazin (damask) and “waxes” as well as simpler printed cotton (“Fancy prints”). These are reputed to be supplied by Holland, United Kingdom, Germany, and Austria, but nowadays the damask actually comes from Hong Kong or mainland China, and many of the wax prints are sourced from Nigeria, Benin, and Cote d’Ivoire. The secondhand clothing market also competes with domestic and regional cloth production. The entire West African textile milling industry is deficit in thread supply, and imports over 1.3 billion meters of cotton thread. COMATEX also imports some greige fabric to supplement its own for printed cloth production.

<table>
<thead>
<tr>
<th>Evolution of Textile Product Imports</th>
<th>Sewing thread (cartons of 1 million meters)</th>
<th>Greige fabric (‘000 meters)</th>
<th>Bazin (‘000 meters)</th>
<th>Wax prints (‘000 meters)</th>
<th>Fancy prints (‘000 meters)</th>
<th>Dyes (tons)</th>
<th>Used clothing (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>850</td>
<td>8000</td>
<td>5740</td>
<td>4200</td>
<td>1440</td>
<td>900</td>
<td>950</td>
</tr>
<tr>
<td>1990</td>
<td>855</td>
<td>10000</td>
<td>11424</td>
<td>4080</td>
<td>1320</td>
<td>950</td>
<td>1020</td>
</tr>
<tr>
<td>1991</td>
<td>890</td>
<td>14000</td>
<td>21700</td>
<td>4320</td>
<td>3600</td>
<td>950</td>
<td>1030</td>
</tr>
<tr>
<td>1992</td>
<td>895</td>
<td>16000</td>
<td>22400</td>
<td>5400</td>
<td>9120</td>
<td>950</td>
<td>1070</td>
</tr>
<tr>
<td>1993</td>
<td>900</td>
<td>20000</td>
<td>24640</td>
<td>4860</td>
<td>10320</td>
<td>950</td>
<td>1050</td>
</tr>
<tr>
<td>1994</td>
<td>950</td>
<td>25228</td>
<td>4884</td>
<td>10320</td>
<td>950</td>
<td>1090</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>1050</td>
<td>17000</td>
<td>26600</td>
<td>11400</td>
<td>4200</td>
<td>950</td>
<td>2005</td>
</tr>
<tr>
<td>1996</td>
<td>1150</td>
<td>19800</td>
<td>26740</td>
<td>6600</td>
<td>3000</td>
<td>910</td>
<td>2007</td>
</tr>
<tr>
<td>1997</td>
<td>1250</td>
<td>15000</td>
<td>27160</td>
<td>5400</td>
<td>3600</td>
<td>950</td>
<td>2008</td>
</tr>
<tr>
<td>1998</td>
<td>1350</td>
<td>13000</td>
<td>28140</td>
<td>5400</td>
<td>28800</td>
<td>950</td>
<td>2010</td>
</tr>
</tbody>
</table>

Source: DNAE

At present, one international investment project is being wooed to Mali, focusing on the first stage of value-added processing in this sector, i.e. thread manufacture. A Bresilo-Japanese firm (O mikenshi Co., Ltd., presently working in Brazil with Omi-Zillo-Lorenzetti S/ A Industria Textil) is interested in establishing a thread factory in Fana, about 120 kilometers east of Bamako. The project is envisioned as a joint venture, with two-thirds Malian participation, of which one-quarter is CMDT and the other three-quarters would be a consortium of private Malian interests. The factory will be set up with 35,000 spindles, expected to increase to 70,000 after the third year, with a raw cotton consumption requirement of 6600 t/yr and production of cotton thread expected at (16.3 kg/ day, 490 kg/ mo, or 5,880 t/ yr). Thread quality is expected to be NM 27 on average. The longer term plan would expand with weaving and knitting mill capacities. The project is expected to benefit

15 O mikenshi Co., Ltd., “Projet Industriel d’Implantation d’une Nouvelle Filature au Mali: Résumé de projet,” Janvier 1998. The Fana ginnery can supply uncombed fiber, while Dio_la can supply combed fiber. According to the minutes of a August 1998 industrial site selection mission to Fana by MICA, CNPI, CMDT and others, concerns were raised about electricity (3,500 kW required) and groundwater supplies. A feasibility study is expected to be underway in September 1999, and the thread factory is not expected to come on stream until September 2000. About one hundred workers are expected to be sent to Brazil for training. Fairly soon thereafter (conservative estimate suggests by 2002), it is expected that the Manantali dam on the Senegal River will come on-stream and improve electricity availability throughout Mali.
from the present **Code d’Investissement** advantages,\(^{16}\) and expects to pay the same procurement prices for cotton fiber from CMDT as COMATEX and ITEMA, although a final decision had not been made by the team’s visit to Mali in June.

Other possible investments noted by Mali’s **Centre National de Promotion des Investissements** in this sector include a textile mill for military uniform cloth (Italy), another joint venture spinning factory (Mali-Senegalese), and a project to take cotton waste and use it for hygienic purposes (Spain).

**Clothing Production**

In addition to the textile mills, one formal sector clothing firm exists in Mali, the Palais de Vêtements, located in Bamako. It has had difficulties modernizing and growing its business, despite having benefited from several private sector training opportunities. The firm produces custom work gear and military uniforms for the Malian armed forces, hospitals, banks, schools, and private companies, all for the local market. Although the company owns thirty sewing machines, it only operates twenty of them, and one embroidery machine. It produces nothing for export.

Since most Malians do not purchase ready-to-wear clothing, the domestic clothing market is quite limited. However, the potential market for corporate wear (military and civilian uniforms) is quite important. It covers the defense and security forces (Army, Gendarmerie, and Police), public and para-public enterprises (hospitals, public companies such as CMDT, INPS,...) and private companies (guardkeeping or cleaning companies, for example, and formal industrial firms such as KOU MALIM,...). This potential market is estimated at 145,000 complete uniforms and over 25,000 blouses on an annual basis. The orders from the government side of this market could be used to help regularize order flow to a nascent clothing industry. However, on the grounds of security concerns, these orders are currently parcelled out across many small suppliers, both domestic and foreign. This decision might be rethought, with an eye toward strategic development of employment in the clothing sector.

The Director of Industry at MICA knew of at least one Malian firm which has undertaken formal clothing exports to France, although the source of the exports could not be confirmed. The department store **Printemps** had ordered Malian “fancy" **pagnes** to sell as tropical wear. However, negative feedback regarding the lack of color fastness, the high shrinkage of the fabric, and the asymmetry of pattern printing was received.

**Training**

With regard to technical training in the textile and clothing industries, there used to be an **Ecole Supérieure de Textiles**, based in Séguo. However, its mandate was established under the former economic community of West Africa, CEAO, now being replaced by UEMOA. As the latter has no statute for running training institutes, the school has been closed. A private NGO in Bamako, the Centre d’Orientation Professionnelle pour la Coupe et la Couture, trains students in the skills needed to enter the informal tailoring sector.

In addition, the Agency for Private Enterprise Promotion offers consulting and training services to private companies at fees which are 50% subsidized by the World Bank. The Professional Training

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\(^{16}\) Until now, investment projects above 100 million CFAF approved under the **Code d’Investissement** are exempt from tax for 8 years on industrial and commercial profits and on business rates and from land taxes for 5 years, registration and establishment costs can be depreciated over 3 years, and there is a tax exemption on increases in capital. The only difference in advantage for smaller investments (below 100 million CFAF) is they receive a 5 year exemption on industrial and commercial profits taxes.
and Apprenticeship Assistance Fund is another training option, the cost of which is 75% subsidized. Only the Palais des Vêtements mentions having made use of these opportunities.

**Benchmarking costs of doing business in Mali**

In order to begin to attract outside investor interest, Mali needs to understand how its current costs of doing business and productivity levels compare with international references, or benchmarks. These have not been explored by the team in great detail, but are offered anecdotally in order to open reflection in this area. Costs, productivity, and regularity of supply are considered equally by companies when deciding where to do business. Thus, while Mali's electricity costs are high, it is the regularity of blackouts from March to July which currently hampers business operation. Private generator supply of power is a good deal more costly than public utility generation.

With respect to utility costs, the following ranges can be observed, with Mali comparing rather unfavorably with respect to electric power costs and reliability of supply. On the other hand, given Mali's water availability restrictions of late, water rates seem unusually low.

- **Electricity**
  - South Africa: US$0.0211/KWH
  - Botswana: US$0.0244/KWH
  - Mali: US$0.067/KWH (00h 00 - 06h 30) (as of April 1999)
  - US$0.107/KWH (06h 30 - 19h 00)
  - US$0.148/KWH (19h 00 - 24h 00)
  - Senegal: US$0.1786/KWH (usage professionnelle 1996)

- **Water**
  - Mali: US$0.190/Kilolitre (1st 20 kiloliters)
  - US$0.472/Kilolitre (next 40 kiloliters)
  - US$0.682/Kilolitre (above 60 kiloliters)
  - Malawi: US$0.21/Kilolitre
  - South Africa: US$0.47/Kilolitre including discharge costs
  - Botswana: US$0.77/Kilolitre
  - Senegal: US$1.023/Kilolitre (> 100 m3/ bimestre)

Telecommunications services, including phone, fax, telex, and email/Internet are available from one single supplier in Mali, the Société des Télécommunications du Mali (SOTELMA). The quality of these services is not without reproach. The phone networks are saturated, and it is extremely difficult to set up new lines. Subscription rates are US$0.107 per day for rental of the line, plus US$0.142 per message unit for individual communications.

Another cost of doing business is with respect to credit. The situation in Mali is somewhat paradoxical, in that credit is both abundant and yet expensive. Most banks have sufficiently high capital assets, but these reserves are seldom used to finance medium- and long-term credits. They are used primarily to finance very short-term operations, such as merchandise or raw material imports. Even for short-term uses, only the large enterprises receive favorable borrowing conditions and terms. Firms in financial difficulty, such as ITEMA, have practically no access to private credit.

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unless the government grants them a loan guarantee. Under ordinary conditions, letters of credit (LOC) are available according to the following terms:

- **Deposit**: 20-30%, from the moment the LOC is requested
- **Guarantees**: Usually required: hypothèque, tierce détention, avail, adossement à un autre compte de banque
- **Taux du concours**: 8-14% (mise à disposition des fonds)
- **Taux de la caution**: 1-3% (sans mise à disposition des fonds)

### Wages and wage taxes (all in US$)

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Malawi</th>
<th>Botswana</th>
<th>Senegal</th>
<th>Mali</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>2.10-3.90/day</td>
<td>0.50-1.75/day</td>
<td>1.50-2.75/day</td>
<td>--</td>
<td>1.70-2.50/day</td>
</tr>
<tr>
<td>Unskilled</td>
<td>245/month</td>
<td>68/month</td>
<td>116/month</td>
<td>123/month</td>
<td>50/month</td>
</tr>
<tr>
<td>... bonus</td>
<td>15%</td>
<td>0-10%</td>
<td>10-12%</td>
<td>--</td>
<td>100%</td>
</tr>
<tr>
<td>Semiskilled</td>
<td>305/month</td>
<td>90/month</td>
<td>166/month</td>
<td>--</td>
<td>70/mo</td>
</tr>
<tr>
<td>Secretarial</td>
<td>345/month</td>
<td>145/month</td>
<td>215/month</td>
<td>160/month</td>
<td>120/mo</td>
</tr>
</tbody>
</table>

- **Wage taxes**
  - 9.5% base salary*

- **Social insurance**
  - 8.5% (employer)
  - + 7.8% (employee)
  - 20.4% base salary

- **National pension**
  - 7.5% (employer)
  - 3-7% (employee)
  - 3-6% base salary

* includes contribution forfaitaire, taxe de formation professionnelle, taxe de logement et de la cotisation à la Fédération Nationale des Employeurs du Mali

For any apparel assembly (CMT) growth to take place and jobs to be created, a workable benchmark is needed. Manufacturers must understand that production costs include both labor and capital (both “working and equipment”) costs which, to a large extent, vary with productivity. In addition to the cost of labor, productivity indices must be considered, in order to get a full picture of the actual cost of labor.

The following benchmarks refer to productivity levels of export-oriented factories, which must perform according to international standard in order to be competitive. The jeans market, a well known, standardized product for which labor productivity is measured in minutes per jean, is offered here as an example. Note that automated production may improve efficiency, but a strong work ethic and labor skills are still required to produce at such high levels.

Levi-Strauss (USA) generally operates around the world on the basis of a “nine-minute jean.” The best manufacturers in South Africa are producing at about a “twelve-minute jean” and the worst in excess of a “thirty minutes-jean.” Judging from what was observed, Mali operatives would be at about a 40/50-minute jean.

### Taxes and import duties

Malian exports may benefit from an **admission temporaire** system which grants customs duty exemptions on imported inputs when used to produce for export. It is rarely used, however.

Until now, Malians have paid the following import duties:
Droit de douane: Normal rate, 5%; for products originating in the now-defunct CEAO, 0%.

Droit fiscal à l’importation: Rate between 0 and 30%.

Prélèvement communautaire de solidarité: Single rate of 1%.

Contribution pour prestation de services: Single rate of 5%.

The value-added tax (TVA, 18%) and ADIT (5%) also figure in customs declarations, but are not included here, as they are reimbursable.

After the year 2000, the West African customs union UEMOA will become effective. At that point, a common external tariff (TEC) will be applied to all imports from outside the customs union. This duty will only have two principal components:

Droit de douane (DD): Four product categories =
0% (biens à caractère social)
5% (essential goods, raw materials, equipment, and specific inputs not produced in UEMOA countries)
10% (intermediate inputs and products)
20% (final consumption goods and all other products not classified above)

Redevance statistique: Single rate of 1%.

Products qualifying for the Taxe préférentielle communautaire (TPC) will be completely exonerated from customs duty (0%), regardless of the DD category to which they belong. In order to qualify for the TPC, the industrial product of UEMOA community origin must contain community member content equivalent to at least 60% of the raw material content, or a value-added equal to 40% of the ex-factory cost-price. The following chart compares trade taxation of textiles industry products imported from outside the customs union, before and after UEMOA.

| Comparison of Trade Taxation, before and after UEMOA (percent) |
|---|---|---|---|---|---|---|
| | Before UEMOA | | After UEMOA |
| | DD | DFI | CPS | PCS | DD | RS |
| Weaving thread | 5 | 30 | 5 | 1 | 10 | 1 |
| Greige fabric | 5 | 30 | 5 | 1 | 20 | 1 |
| Printed cloth | 5 | 30 | 5 | 1 | 20 | 1 |
| Dyes | 5 | 15 | 5 | 1 | 20 | 1 |
| Clothes | 5 | 30 | 5 | 1 | 20 | 1 |

A rapid check of the table confirms that import duties on textile sector products will fall after UEMOA’s TEC enters into force. These rates apply to imports of products resold without processing. For imports destined for inputs into industrial applications, only a 6% duty will be applied.

The Malian government has granted special advantages to the two industrial textile mills, COMATEX and ITEMA, which exceed those available under the Investment Code. They have been exonerated from all internal and external duties and taxes for the last fourteen years.
A few southern Africa comparisons to Mali might be useful for understanding some of the differences among countries which are or recently have been in similar points in the development of their industrial sectors. For example, Malawi, the poor sister of the southern African community, has a couple of small textile industries and a relatively small clothing sector. Two preferential trade agreements exist, one with South Africa and the other with the European Union. Illegal transshipment through Malawi to South Africa is thus quite common, and Malawi’s local market has been inundated by Chinese imports. Very little cotton is grown in Malawi, and the country is very poor outside of the capital. Infrastructure exists, but is not in great shape generally. Some South African companies have invested in manufacturing in the clothing industry to take advantage of the inexpensive labor and duty-free access back into the South African market. However, labor may be cheap but it is not productive, and power cuts are frequent, although nowhere near the scale witnessed in Mali. As a result, many of the South African firms have closed and moved away.

Another interesting case is Mozambique, which has just emerged from a twenty-year civil war during which time all textiles production collapsed. Cotton continued to be cultivated even throughout the war, with production levels around 150,000 bales. Rapid infrastructure improvements have attracted outside manufacturing interests, but only the boldest so far. Textiles is still virtually non-existent, although one or two operations are producing. Due to extremely low labor costs and the strong relationship with South Africa, the clothing industry is now becoming active there. At least fifteen operations have been started up in the last eighteen months. Before this, power supply was interrupted frequently (similar to Mali) and the logistics of transport were very problematical.

Among the more successful Southern Africa development cases is that of Botswana, in many ways similar to Mali in terms of climate and resources, but with a level of development far ahead of its Sahelian counterpart. Although the country’s wealth was originally generated by the mining sector (diamonds), it was recognized that “the end of diamonds” was coming. This foresight, combined with a sturdy democracy lasting some thirty years, led to increased strategic priority being given some ten years ago to the development of industry in all sectors to provide jobs. Judicious use of donor aid funds has made a significant difference to the speed of development. Industrial development incentives offered include set-up grants (government provides land and infrastructure, and the Development Bank of Botswana finances up to 50% of building needs and equipment requirements, thus providing construction jobs in the booming building industry), training assistance (industry-designed training schemes established whereby each company is required to provide a lecturer and course terms of reference; when candidates successfully pass examinations, a percentage of the employee’s salary is reimbursed to the respective company), tax exemptions (no company tax payable for the first five years), export incentives (annual grant is payable to those industries achieving their projected export turnover over the first two years), and zero tax on inputs for export.

Today, while Botswana may be landlocked, good road, rail, and air infrastructure allow for rapid movement of goods to ports in South Africa and Namibia. Telecommunications, essential for all industry, are first world. With a total population of 1.6 million people, Botswana has very high education standards and has succeeded in educating its current working generation to the high school level. With respect to textiles, Botswana is a very small producer of cotton (approximately 15,000 bales per year), although plans exist to grow this sector. The textiles and clothing industries were promoted strongly, pushing Botswana’s advantages of duty-free access to the EU and to South Africa and exemptions from MFA quotas. All the necessary industrial infrastructure has been set up on a decentralized basis, with three main industrial centers in the country established in high population density localities. Five known textile operations are linked to garment manufacturing.
plants in Botswana. In addition, many CMT operations of small to medium size operate with linkages to larger international firms.

**Technical and management analysis of operations**

**Ginning**

Our study was not asked to review cotton ginning. However, it was deemed important to get a brief look at CMDT’s operations in order to assess the availability and quality of the principal raw material produced in Mali for the textile and clothing sector. Accordingly, the team visited one CMDT gin in Fana, which ginned approximately 8% of the national crop during the 1998/99 season. A tour of the Fana facility was conducted and discussions were held with central CMDT staff in Bamako. Since the 1998/99 ginning season was over by June, the gin was non-operational at the time of the visit. Maintenance was being conducted in preparation for the new crop which will start to be harvested in November.

According to the team’s technical assessment, management appeared competent with full understanding of the operation. The necessary data collection and reporting systems commensurate with a business of this size were in place. With respect to ginning productivity and capacity, this gin appears to be producing at acceptable high levels of output compared to benchmark figures, and operating maximum hours (round the clock) during the ginning season. Given the results from this one gin, the technical and management consultants concluded that the existing ginning capacity (17 gins total) should be sufficient to cater for current levels of production, and should accommodate some growth in crop size. CMDT officials maintain that several factors constrain them at this time, leading them to invest in additional ginning capacity. For instance, seed cotton production is spread out over a large geographic area and thus needs to be ginned at dispersed points around the country to minimize transport costs. Also, extending the ginning season much beyond April runs the risk of crop damage due to the onset of rains. Finally, management fears that excessive on-site storage runs the risk of increased fire hazard.

The Fana facility has its own power generation, as well as being linked to the national grid. The team was advised that as the ginning season coincides with a strong flow of the Niger river on which the power plant is situated, there is only an occasional need for back up own power generation. Steam (vapor) and water supply was reported as being adequate.

Notwithstanding the age of the gin, the ginning equipment is satisfactory for the production of fiber to international standards. Fiber research and development is managed by CMDT, with varieties tested regularly at each gin for outturn, yield, and quality, all of which are benchmarked within normal world standards. Quality and monitoring procedures appear to be in place. Although managers have procured H.V.I. testing equipment, which allows for automatic testing of fiber quality, it is presently non-operational. This leaves the grading of fiber on a subjective basis and raises the possibility of under- or over-pricing due to inaccurate or biased evaluation judgements being made.

A general absence of health (protective clothing) and safety accessories was noted. Evidence of previous fires emanating in duct feeding after the last cleaning point prior to bale press was also observed. While gin fires do incur infrequently, the need for environmental safety is paramount. Fire

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18 Three Malian ginning facilities (Fana, Dioila, and Ségu) both draw power from the national electricity company, EDM, and have back-up generator facilities. The gin in Bamako is the only one which depends exclusively on EDM for all its power needs. All other gins rely solely on generators. In the southern part of the country, this involves steam generated by the oilseed pressing parastatal, HUICOMA.
extinguishers, available water mains, hydrants, and fire fighting team training and practice are standard issues dealt with by global ginners. There did not appear to be anything in contravention of acceptable environmental standards.

The most important missed opportunity noted in the ginning subsector is with respect to the collection and export of ginning waste (seed cotton cleaning waste, or motes, and cottonseed cleaning waste, or linters), which Mali is just beginning to address. Cottonseed is presently sold at a low domestic transfer price (relative to world prices) to Huicoma, the Malian vegetable oil producer. The non-recovery of waste elements from the ginning process was evident on site in Fana, and we were told that at least 50% of the installed gins do not yet recover waste. Management did state, however, that plans were in hand to rectify this situation.

An accelerated strategy to ginning waste recuperation is vital. Return on capital investment is in terms of months rather than years. Additional job opportunities will be created and profit and foreign income earnings will be significant. Global markets for motes and linters are well established and exist mainly through Germany (Europe) and Japan (Far East), with other smaller markets around the world. In focussing on these two important markets, consideration must be taken of international standards required and hence our preoccupation with environmental and safety standards, control systems, and attention to detail. For example, standards and specifications exist for the sale of motes and linters especially, for oil and fat content, which are policed by inspectors.

This suggests that for a harvest of 500,000 tons of seed cotton, roughly $5.7 million of potential revenues are lost due to the non-recovery of these commercializable ginning by-products; see below.

### Ginning By-Products: Yields and Values

<table>
<thead>
<tr>
<th></th>
<th>Ginning yield, per 100 tons seed cotton</th>
<th>World price ($/ton, CIF Bremen)</th>
<th>Value of waste with national seed cotton production of 500,000 tons:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motes</td>
<td>4</td>
<td>215</td>
<td>$ 4,300,000</td>
</tr>
<tr>
<td>1st cut linters</td>
<td>1</td>
<td>160</td>
<td>$ 800,000</td>
</tr>
<tr>
<td>2nd cut linters</td>
<td>0.57</td>
<td>145</td>
<td>$ 413,250</td>
</tr>
<tr>
<td>3rd cut linters</td>
<td>0.43</td>
<td>115</td>
<td>$ 247,250</td>
</tr>
<tr>
<td><strong>Total potential value:</strong></td>
<td></td>
<td></td>
<td>$ 5,760,500</td>
</tr>
</tbody>
</table>

**Continuous pressing**

Despite multiple tax and price advantages offered by the government, both textile firms in Mali continue to suffer financial difficulties.

At ITEMA, although our discussions with senior management gave a clear perception that the facility was operational, on touring the plant it was obvious that all sections had not been operating for some considerable period of time. Maintaining a facility capable of producing many million meters of cloth per annum, employing 700 people, and producing nothing is of obvious dubious social and financial value. The installed equipment, while old, could still be used for the manufacture of simple 100% cotton woven greige goods, i.e. bale wrapping. The present operation does not give the impression that it is capable of strategizing a solution for its present difficulties. Retaining non-
productive employees poses serious disincentive issues to laborers at other firms, and retrenchment is advised for all non-essential personnel while the enterprise is being reformulated or parts sold off.

At COMATEX, management appears adequate, but inwardly focused and with shortcomings with respect to the development and marketing of new products. The labor force on the whole appears satisfactory, although management admits that it is looking for ways to improve morale and productivity. There are a number of simple, low-cost management innovations would could be implemented, such as distribution of a monthly corporate newsletter, introduction of good housekeeping competitions, installation of cold water dispensers, and permitting ambient music in low noise areas, all of which would go a long way in showing workers that management is concerned about their welfare and morale. In addition, training courses for shift supervisors might be added to increase cross-cultural sensitivity and establish a more positive and productive working relationship with labor.

With the exception of the Stork printing machine, the most modern piece of equipment observed, the equipment is old but adequate for the range of products being produced. While re-equipment with wider and faster machines would help to reduce costs and improve quality, this type of action should not be considered until the maximum utilization is squeezed out of existing capacity. Adequate quality was observed for the present mix of product and anticipated expansion into non-discriminating industrial type products. Productivity is also reasonable, considering the age of equipment and product profile being manufactured.

With respect to environment and worker standards and conditions at COMATEX, there was no evidence of effluent treatment being undertaken, though we were advised that it is operational. In general, though, environmental conditions appeared well below world standards. If COMATEX were ever to move into export apparel markets, their overseas customers would insist on minimum requirements in respect of effluent treatment and disposal. Should the company take the route of industrial fabrics as we are suggesting, then the demands will be far less demanding. In the longer term, however, industry at large and particularly that in developing countries will have to comply with evolving international standards. Health and safety standards were well below international standards, especially in the areas of noise control (hearing protection urgently required) and protective gear (regarding use of chemicals). As a matter of urgency, audio and respiratory protection should be introduced to protect the workforce. This would also go some way in terms of improving moral.

By focusing on the very important function of product development, which is presently nonexistent, the operation could be brought to full utilization and be made much more profitable. This represents COMATEX’s most important missed opportunity. In order to maximize profitability, the operation should plan to increase operating hours to the maximum (168 hours per week). While we understand there is not much hope of selling more of the products already being made on the domestic market, there is a host of products which can be produced profitably for the international market (see Recommendations below). While the operation may now be breaking even financially, its true profit potential cannot be fully realized unless the level of overall activity increases. We were advised that additional working capital is available to finance such an increase in activity.

Formal CMT (“cut-make-trim” or international apparel assembly) Management is underskilled in the one clothing operation we visited, inwardly focused, and thus incapable of maximizing the full potential of this small operation. Poor motivation of the workforce, coupled with low morale and lack of direction, are apparent in all aspects of this business.
The installed equipment is not a constraint on increasing the output of this business, and the firm has its own power generation which is used during frequent national power failures.

However, health and safety standards were not in evidence, quality of production is not acceptable to international standards, overall productivity is poor and not measured, and with respect to environmental issues, poor lighting and low general quality of housekeeping were observed.

At present, Palais des Vêtements produces custom-made uniforms for Malian army personnel. This “haute couture” approach to state bulk uniform requirements results in high cost and low productivity. In addition, lack of knowledge of the broader markets (local, regional, and global) and their requirements is impeding the augmentation of volume.

Informal sector
A number of visits were undertaken to independent spinners, weavers, dyers, and tailors in and around Bamako. We observed a variety of artisanal activities in the production and sale of custom-dyed fabric (damask, or bazin), hand-painted decorative cloths (mud cloth, or bogolan), hand-woven cotton fabric, and custom tailoring and embroidery of a wide range of traditional African clothing. Cottage industries abound, each suffering similar problems relating to erratic power supply, high costs of imported inputs, workplace safety risks and worker health hazards, and marketing difficulties. On the other hand, all demonstrate boundless creativity with respect to product design and innovation, intricate and high quality production, and entrepreneurial pride as evident from the photo gallery of style inventory each business maintains.

Bazin is imported from Hong Kong in a “raw” (white) state, sold in the local market, and then dyed with imported sulphur-based dyes by artisans under quite unsafe working conditions. Tie-dyeing and fancier processes are used to achieve a variety of finished fabric effects. The dyed fabrics are finished in a cassava-based starch wash, sun-dried, and then hand-pounded under less than ideal working conditions (workers have no ear protection).

Given the short time available, we were unable to quantify the size and potential of the mudcloth home weavers and dyers. The production of bogolan is both a craft supplement to household incomes in rural areas, and represents a traditional artisanal activity being revived in arts apprenticeship programs in and around Bamako. While mudcloth designs have international appeal in the Afro-centric or “world cultures” textile and clothing markets, as traditionally produced in Mali on strip cloth they are not terribly practical to European or American consumers.

In addition to mudcloth, the home spun industry, which includes home spinning and weaving of narrow fabrics, needs to be quantified. One weaver we visited complained of limited demand for his products, which in turn limits the amount of paid work he can offer the three young weavers he has trained. As a consequence, the workers return to their villages during the rainy season to help with their households’ agricultural chores, leaving the head of the weaving atelier at a disadvantage in terms of timely fulfilling of product orders. Labor supply and delivery timeliness difficulties aside, a test case involving the export of fabric samples to South Africa for evaluation in the household textile products market has revealed further constraints regarding facilitation of international communications and difficulties in organization of international shipping and payment transfers.

We recommend a separate study of these sectors be undertaken, after which the data from these studies can be evaluated and recommendations made.
Problems for future development of the industry
In comparison to these Southern African countries, Mali seems far poorer. To the foreign investor's eye, it offers political stability and a respectable system of governance, as well as a remarkable apparent absence of crime. Yet its frayed infrastructure and persistent problems of parastatal industries draining financial resources and wasting human resources mask a number of less obvious problems for future industrial development in Mali. A sample evaluation scale for the international investor comparing alternative countries with which to do business is found in the annex to this report, page 31. This of interest to Mali, which might choose to adopt a strategy to address the evaluation criteria in order to make itself more attractive to investors. Such strategic thinking is implied in Mali's commitment, for example, to improve power generation and distribution around the country. Other issues with which Malian policy makers and private sector leaders should be concerned relate to workforce development and the strategic use of subsidies to accomplish employment and developmental objectives.

Workforce development
In a recent study of U.S. computer and clothing firms doing business overseas, firms were asked to rank the factors determining their choice of country production platform. Their responses are enlightening. Adequate, modern infrastructure and economic and political stability are the sine qua non conditions before a country will be considered by multinational corporations for investment or for establishing commercial partnerships with local firms. After these conditions are met (and a sufficient number of such candidates now exist from which to choose), U.S. firms indicate that they evaluate possible partner countries according to the degree of workforce development they find in place.

By “workforce development,” a number of different criteria are indicated. In the broadest sense, the competitiveness of a country's workforce depends on a system of inter-related factors, comprised of demographics, population and health, education and training, economic incentives, legal and regulatory environments, entrepreneurial & business development, and social & political institutional elements.

More specific to workforce development, an economy may be deemed capable of producing competitive unskilled and skilled labor when it has

- labor market regulations which establish minimum standards for workplace environment, work hours, benefits, living wages, use of temporary labor, use of foreign labor, environmental & health safety, rights to organize, without excessively protecting workers to the point of not being able to relinquish their employment when market shifts require this to protect firms
- basic education system which produces workplace-ready laborers who are literate/numerate
- applied training system which is responsive to firm-specific, industry-specific needs
- university system which trains thoughtful, entrepreneurial managers and business leaders in addition to educators/health professionals/and other specialists
- government policy making environment which promotes transparent, automatic universally applied rulemaking

19 The present instability of electric power availability during the dry season makes Mali an expensive and therefore unattractive place to do business. By 2002, when the Manantali Dam’s power generation capacity is expected to come on-line, the country will make a much more successful claim on investor interests.
• legal, regulatory, and judicial systems which recognize and enforce the rights of individuals, workers, intellectual property holders, firms/ corporations, contracts
• political and social culture which promotes open expression of needs & interests among competing/ complementing stakeholders, allowing policy making to be undertaken in collaboration with other stakeholders in the economy following open communication among all parties

It should be stressed that when one talks about the “workforce,” both skilled and unskilled labor are indicated. Workforce competitiveness, therefore is not simply a function of the degree of literacy and numeracy, wage rates, and physical productivity of unskilled workers. U.S. firms operating overseas indicate that equally important is skilled labor talent, i.e. the availability of skilled middle and upper level management to

• initiate new enterprises, 
• employ labor effectively, 
• innovate manufacturing/ procurement/ logistics processes as necessary, 
• implement quality standards/ incentives, 
• implement productivity standards/ incentives, 
• respond to international trade requirements (customs regulations, just-in-time delivery,… ), 
• manage customer relations, 
• introduce new products or design adaptations, 
• utilize information technology for internal management as well as external relations, 
• maintain levels of financing adequate for continued investment in new technology and new capacity as necessary, and 
• identify workforce training requirements.

Mali’s formal textile industry has begun to produce modern industrial workers (as observed at work at COMATEX). Whether they are capable of servicing a modern, quality-driven, time-sensitive, export-oriented industry remains in question. Significant work needs to be undertaken to identify the skills, and thus training, requirements which need to be addressed if the country is to capitalize on its rich tradition of textile-related skills still being exploited in the informal sector and adapt these to successful, profitable, employment-generating, export-oriented, formal businesses.\textsuperscript{20}

Mali’s only textile training facility in Ségou is closed. We visited the only clothing training facility in Bamako and would comment that the content of the three-year course appears costly viewed against local purchasing power. There may be an argument for consolidating this facility under the auspices of the proposed textile sector artisans guild to maximize its full potential.

**Domestic cotton fiber price subsidy**
Depending on the world price one uses as a reference, Mali’s value-added processors of cotton fiber may be getting a substantial price advantage from CMDT. Both ITEMA and COMATEX have

\textsuperscript{20} A separate study is examining the sources of low productivity of Malian labor, compared with that of Ivoirian labor (see M. Coulibaly, forthcoming). Possible explanatory variables include the available skills set of both unskilled and skilled labor, workplace readiness of unskilled labor (punctuality, absenteeism, ability to implement directions), working conditions, management practices and standards, and the health of the workforce. The results of the labor productivity study will help to shape a workforce development strategy to Malian labor market needs, and (combined with the insights of this textile study) should help to produce a Malian workforce in the textile and clothing industries capable of responding to international competitiveness requirements.
access to as much local fiber as they need at an ex-factory price of 550 CFAF/ kg. This represents a 22 percent subsidy, relative to the ex-factory price equivalent of a world CIF price of 60 cents/ lb from which the costs of international freight and transport between ginnery and FOB point are deducted. However, it actually represents a 13 percent level of taxation compared to the world price equivalent prevailing during the summer of 1999 of 48.35 cents/ lb.

<table>
<thead>
<tr>
<th>Economic Analysis of Cotton Fiber Price</th>
<th>Prix de référence mondiaux</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Début 1999</td>
</tr>
<tr>
<td>Prix mondial CAF (U.S. cents/lb)</td>
<td>0.600</td>
</tr>
<tr>
<td>* Taux de change (CFAF/U.S.$)</td>
<td>600</td>
</tr>
<tr>
<td>* 2200 lb/t</td>
<td>2200</td>
</tr>
<tr>
<td>= Prix mondial CAF (CFAF/tonne)</td>
<td>792.000</td>
</tr>
<tr>
<td>+/- Ajustement, qualité malienne</td>
<td>-1.5%</td>
</tr>
<tr>
<td>= Prix équivalent mondial CAF, coton malien</td>
<td>780.120</td>
</tr>
<tr>
<td>- Fret maritime</td>
<td>69.034</td>
</tr>
<tr>
<td>= Prix mondial FOB</td>
<td>711.086</td>
</tr>
<tr>
<td>- Transport, mise en FOB</td>
<td>72.531</td>
</tr>
<tr>
<td>= Prix équiv mondial, carreau usine</td>
<td>638.555</td>
</tr>
<tr>
<td>= Prix équiv mondial aux usines textiles</td>
<td>638.555</td>
</tr>
<tr>
<td>Prix de cession aux usines textiles</td>
<td>550.000</td>
</tr>
<tr>
<td>/ Prix équiv mondial aux usines textiles</td>
<td>638.555</td>
</tr>
<tr>
<td>= Coefficient de protection nominale, consommateurs industriels</td>
<td>0.861</td>
</tr>
<tr>
<td>Taux de protection nominale</td>
<td>Subventionné</td>
</tr>
</tbody>
</table>

In economic terms, the granting of such a subsidy is clearly to be discouraged, for it distorts incentives to cotton fiber processors, artificially lowering their costs and allowing them to be less efficient than world counterparts. In financial terms, the granting of such a subsidy only partially compensates for the high cost of doing business in Mali. Utility and transport rates are high, electricity delivery is erratic, and support services are weak.

**Recommendations and conclusions**

It is the opinion of the technical consultants that the establishment of fully vertical textile operations should not be pursued, as continuous investment in the entire chain is prohibitively expensive and the risk outweighs the potential reward.

Given the enormous barriers present in Mali’s economy today, a multi-tiered strategy is recommended to Mali’s textile and clothing industry:

**First**, it is suggested that profitable capital investments can be made at the first stage of the value chain (spinning). This strategy offers limited job creation opportunities, however, and is capital-intensive.

**Second**, a number of practical recommendations are offered here which focus on potential efficiency improvements to existing activities.

In the ginning sector, it is recommended that a feasibility study be conducted urgently with a view to accelerating the installation of waste recovery systems. Experience shows there are very quick pay-
backs to this form of capital expenditure. It is the opinion of this team that expansion of ginning capacity is unnecessary, and it is recommended that further study be undertaken to evaluate the possibility of extending the ginning period from six to seven months in order to conserve the need for additional capital expenditures. Finally, to ensure that Malian fiber product quality is not compromised, the use of polypropylene wrapping and farm picking should be discouraged. Spinners around the world prefer the use of cotton picking bags and bale wrapping to preserve uncontaminated cotton fiber. Normally the packaging cost difference greatly favors the use of synthetic (polypropylene) over cotton fabric sacking. As long as Mali’s textile firms enjoy raw material cost advantages, however, they may as well use it to help create maximum value for baled fiber exports. It is recommended therefore that Mali fiber exports be packaged with 100% Mali cotton products, for which a world price premium, if marketed properly, of 1.5 U.S. cents/lb should be obtainable on world markets. The cost differential between polypropylene and cotton wrapping would need to be deducted from this premium.

With respect to ITEMA, it is recommended that the facility be scaled back and re-engineered to produce 100% Mali bale wrapping cloth and picking bags, for sale to CMDT. Requirements for this type of fabric are estimated for the Malian cotton fiber crop as being 6.0 million linear meters per annum. All other equipment should be sold off or scrapped in order to release funds and at the same time provide industrial space to be applied to alternative uses.

As COMATEX is the more productive and progressive of the two firms, new product lines should be introduced to improve its financial viability. These can be accommodated using existing equipment. A wide range of suggested new “industrial fabrics” products is possible, including pocketing and waist banding, curtain lining, substrates for coating, upholstery, automotive uses, outdoor furniture, mattress ticking, and interlinings, to mention but a few. Centercourt Consultancy could facilitate international market connections for these products. The suggestion made above regarding the production of picking and bale wrapping fabric for CMDT would equally apply to this operation. COMATEX management is also advised that in order to be a competitive supplier to global markets, the urgent upgrade of health and safety standards is required.

Immediate management skills training is required for the Palais de Vêtements, if it is to continue to survive. One strategy would be to target the existing state and parastatal garments market in order to consolidate demand for ready-to-wear clothing in Mali. Satisfying that market would go a long way toward improving management and clothing worker skills. Longer term, production trials should be focused at the international markets. However, further growth in CMT operations is not recommended for the Palais or other Malian clothing companies, unless undertaken in joint venture with top international producers who can provide leadership with respect to product design and specifications, input grades, delivery specifications, marketing leads, global consumer tastes, etc.

Third, we believe there is a large reservoir of untapped skills in the so-called informal textile and clothing sector. These skills need to be harnessed in such a way as to service local and international markets with unique individuality, producing “haute couture” garments of West African character, providing these skills can be drawn together in a focused endeavor. It is recommended that a cooperative of independent weavers, dyers, tailors, and embroiderers be founded as a formal artisans guild, drawing together all the independents in one location and within one single manufacturing area. We understand this proposal will present some difficulties, as the historical independence of the crafts people, as well as relocation, will be issues to address. However, we believe the envisaged benefits far outweigh the objections.
Creation of such a collaborative would enable more cost effective procurement of fabric, thread, labels, packaging, dyes, and chemicals due to bulk purchasing savings. In addition, a centralized production facility could be established using part of ITEMA’s existing premises which could be made available by the state at favorable rental and utility rates. Better utilization of existing equipment and enhanced purchasing power along with improved and more cost effective maintenance will also result.

Significant productivity improvements could be envisaged, through cooperating and the sharing of skills and assets, all the while maintaining individuality of style and design content. The grouping of artisans would also allow the establishment of and adherence to a quality standard, which would help to achieve international expectations more easily and, in so doing, help to assure export growth. A library of unique designs could be created and promoted, creating greater market interest. These could be advertised on the World Wide Web, for example. It is also expected that the combining of various skills and talents will open up new areas of product innovation. A central facility would also provide for easy customer access and more timely deliveries. In terms of international marketing and exposure, a professionally developed website should be created to stimulate rapid international growth of this cooperative. In addition, a “Made in Mali” brand should be pursued with state support.

For the benefit of all concerned, health and safety standards must be established for the informal sector. Some examples of safety procedure oversight observed or recounted by informants include the following. Electrical connections in all tailoring premises are substandard and dangerous, and constitute extreme fire hazards to all who work therein. Exposure to dangerous sulfur dyes/chemicals is widespread, and is acknowledged to have led to the premature demise of the mother of one of the haute couture entrepreneurs we visited. Without hearing protection, men involved in the hand-pounding of tie-dyed *bazin* will be deaf within five years. By grouping these individuals in a cooperative in a central location, safety and health needs can be addressed, and standards can be implemented.

Finally, with respect to workforce training needs, the first step would be to conduct a full training audit to establish what are the best practices in Mali and benchmark these against international standards in the textile and clothing industries. Furthermore, in order to facilitate Malian entrepreneurs’ integration into international markets, it is recommended that part of management development should include the exposure of as many people as possible to international production operations, with a view to being able to benchmark their own operations. International tours should be arranged which would expose formal and informal textile and clothing business people in Mali to best practice businesses and markets abroad. Professional organizations which might be able to facilitate the establishment of relevant contacts in the U.S. include the International Textile and Apparel Organization, and the Fair Trade Federation, as well as private manufacturing and retailing companies and international textile and clothing fairs.

In conclusion, whether Mali’s business men and women opt to work in the industrial or artisanal sides of the international textile and clothing industries, many interesting options exist for inserting Malian products into the world market. However, the Malian private sector has not yet mastered how to grow globally competitive manufacturing and exporting enterprises. Understanding the factors driving textiles and clothing today involves a wide range of technical and business skills, *inter alia*

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21 One of the crafts firms visited, Tantou Teinture, a damask-dyeing facility, does maintain a website for advertising, although not for commercial purposes. Its website URL is [http://www.malinet.ml/pra/ tantou/](http://www.malinet.ml/pra/ tantou/) .
understanding global systems of production and trade, aesthetics and the culture of dressing, textile fiber chemistry and physics, fabric design and manufacture, fashion design and manufacture, quality assurance, consumer trends, textile and clothing trade regulations, commodity production, niche product marketing, alternative or fair trade marketing, mass manufacturing technology and processes, information systems, artisanal guild organization, international sourcing, retailing, catalogue marketing, e-commerce, lifestyle and ethnocentric marketing, foreign direct investment, joint ventures, customer relations, the economics of textile and clothing supply and demand, comparative advantage and competitiveness analysis,... The list of skills required for a modern industry is long.

Maliens are creative, hard-working people, with a long cultural tradition embracing textile and clothing design and production, and with historic trading connections to distant markets across the African continent. Once exposed to international ways of doing business, we are confident that new product and market ideas will be generated by Malians themselves, excited to link up with international partners and join the international marketplace as competitive suppliers of high quality fabrics, designs, household textiles, and garments to internationally savvy consumers the world over.
References


Contacts made

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Annex: Investment evaluation criteria

It is suggested that multinational companies evaluate the following criteria in determining whether the minimum requirements essential to their operations obtain. Figures in parentheses refer to proposed weighting for each criterion.

• **Government regulations**
  - Minimum conditions to be satisfied:
    - Equity participation/ ownership
    - Duties on inputs
    - Repatriation of profits
    - Government delivery commitments
  - Further consideration includes (total 70 points):
    - Tenure of land and buildings (10)
    - International trade constraints (10)
    - Stable tax policy (10)
    - Health and safety (5)
    - Security/ bandits (5)
    - Availability of international aid (5)
    - Stability of currency (5)
    - Legal comfort (5)
    - Expatriate living/ working conditions (5)
    - Marketing assistance (5)
    - Local presence of international auditors (5)

• **Infrastructure**
  - Minimum conditions to be satisfied:
    - Stable government
    - Access to port/ airport and markets
    - Power supply
    - Water supply
    - Availability of land and buildings
    - Cost of land and buildings
    - Banking and lines of credit
    - Communications
  - Further consideration includes (total 50 points):
    - Water cost (5)
    - Effluent requirements (5)
    - Steam raising coal/ oil costs (5)
    - Rentable housing (5)
    - Schooling (5)
    - Language (5)
    - Ancillary services supply (5)
    - Power cost (5)
- Availability of support components (5)
- Recreational facilities (5)

- Labor
  - Minimum conditions to be satisfied:
    - Availability
    - Cost
  - Further consideration includes (total 40 points):
    - Work ethic (10)
    - External demands (10)
    - Education (5)
    - Skill availability (5)
    - Gender profile (5)
    - Union status (5)

- Raw materials
  - Minimum conditions to be satisfied:
    - Availability
    - Continuity
  - Further consideration includes (total 15 points):
    - Price (10)
    - Quality (5)

- State development benefits/grants
  - Minimum conditions to be satisfied:
    - VAT recoupment/ reasonable tax incentives
    - Free flow of capital
    - Realistic labor policy
  - Further consideration includes (total 50 points):
    - Raw material incentives (10)
    - Country preferential status (10)
    - Tax holiday profits (5)
    - Training incentives (5)
    - Capital equipment incentives (5)
    - Transport benefits (5)
    - Utility benefits (5)
    - Other linkages (5)