

## The World Trade Organization and Southern Agriculture: The Cotton Perspective

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### *Abstract*

The World Trade Organization (WTO) negotiations could have important implications for Southern Agriculture. This paper explores some of the issues surrounding the WTO negotiations for cotton. Specifically, this paper examines the impacts of the phase-out of the Multi-Fiber Arrangement (MFA) on the location of textile production and cotton trade flows. Generally, it is believed that the WTO negotiations will have little direct impact on cotton, but will have indirect impacts through textile policy.

Keywords: cotton, WTO, trade, textiles, MFA

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## **The World Trade Organization and Southern Agriculture: The Cotton Perspective**

Major strides towards trade liberalization have occurred as a result of the implementation of the Uruguay Round Agreement (URA) and the World Trade Organization (WTO). However, further advances are proving more difficult. Agriculture continues to be a problem area for continued WTO negotiations. Resistance to further reductions in export subsidies and domestic support has generated considerable debate. In addition, the growing proliferation of regional trade agreements such as the proposed Free Trade Area of the Americas (FTAA) may serve to complicate the issues surrounding the WTO negotiations.

The implications of further WTO negotiations for some Southern agricultural commodities could be important. Cotton is a commodity that is important both to the Southern United States and to many countries around the world. Cotton (and textiles) may be prominent in WTO negotiations because of their importance to many developing countries. However, most developing countries do not currently subsidize exports of cotton, thus limiting the potential influence of any regulations to which the WTO may administer. This would seem to suggest that, at least for cotton, future WTO negotiations will have little impact on trade.<sup>1</sup>

The implications of the on-going WTO negotiations are the subject of a continuing dialogue. Commodity specific impacts are both relevant and a source of concern for economists, policy makers, and farm leaders. The purposes of this paper are to: (1) describe the position of the US in world cotton production and trade, (2) explore

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<sup>1</sup> This is an abstraction away from the possibility of Chinese accession into the WTO. The impact of that potential change will depend on the rules under which China would be admitted.

the ramifications of potential changes in the WTO, and (3) examine the potential indirect impacts of other WTO policy changes.

### **The Current Cotton Situation**

The US is both a large producer of cotton, consistently ranking third or fourth in the world in terms of total output, and the largest exporter of cotton (USDA, Various Issues). US exports have accounted for an average 23% of world exports over the 1970 to 1997 period (Figure 1), and about 33% of US production over the same period. Given the relative proportion of the world market, US cotton exports are influenced by both domestic and international policies that influence trade.

### **Domestic Policy Affecting Trade**

The US has utilized an export subsidy for cotton since 1985 (see Hudson and Ethridge, 2000a). Although there is little direct evidence of the positive impacts of this policy on US cotton exports, anecdotal evidence suggests that the export subsidy has increased exports (a recent preliminary analysis by Hishamunda et al. suggests that the export subsidy has increased US exports, increasing US cotton price by about 7%). Figure 1 shows that exports after 1985 have increased over the levels prior to 1985.

US export subsidy levels are currently below required levels agreed upon in the URA. Thus, unless lower levels are negotiated in the new round of WTO talks, additional reductions in export subsidization are not likely to be required. The primary constraint to export subsidization in cotton has been domestic budget concerns. That is, the appropriated funds for cotton export subsidies for the 1996-2002 (under the Federal Agricultural Improvement and Reform (FAIR) Act) period were exhausted in 1999, leading to some concerns about the budgetary cost of the program. However, in 1999,

the US Congress appropriated money for continuation of the export subsidies through 2002.

Other domestic policies indirectly affect trade as well. The FAIR Act was designed, at least in part, to limit government involvement in agricultural production by decoupling payments from acreage decisions. Thus, if acreage/production distortions are minimized, trade distortions may be minimized as well. This appears to be the maintained hypothesis espoused by US trade negotiators in negotiating for reduced domestic subsidization. However, other government programs such as subsidized crop insurance, of which cotton is a major beneficiary, may also distort acreage decisions and trade. To the extent that these programs are addressed in the WTO negotiations, they may ultimately affect the US cotton industry.

### **The Foreign Cotton Market**

Besides the US, major cotton producers include China, Uzbekistan, Pakistan, India, Turkey and Australia. With the exception of China and Australia, all these major producers have practiced or continue to practice negative protection through either direct taxation or export restraints (see, e.g., Hudson and Ethridge, 1999, 2000b; Hudson and Ethridge 1997; Isengildina, Herndon, and Cleveland; and Hudson). These policies are aimed at indirectly subsidizing domestic textile industries by manipulating cotton production sectors. For example, Hudson and Ethridge (2000b) found that a cotton export tax in Pakistan significantly lowered Pakistani cotton exports, while increasing Pakistani textile exports, thus altering global cotton and textile trade flows.

China remains an enigma for the cotton market. In some years, China is a net importer of cotton, while it exports significant quantities of cotton in other years. China

has increased its manmade fiber production capacity of late to reduce reliance on cotton fiber for textile products. This shift, at least in part, is a result of refocusing agricultural production efforts to food and feed grains to support a growing population. Nevertheless, whether China is a net exporter or importer of cotton will continue to have important implications on global trade flows and world cotton prices.

### **The WTO and Cotton**

The fact that the majority of the major cotton producing countries are considered “lesser developed countries” (LDCs) and that these countries practice either no or negative protection for their cotton production sectors somewhat complicates the outlook for world cotton trade. First, LDCs receive special considerations under the WTO such as longer tariff phase-out periods and smaller subsidy reduction requirements. More importantly, however, the WTO attempts to reduce export subsidies, but does little to regulate a country from restraining its own exports. In this context, the URA and WTO have done little to *directly* alter world cotton trade nor will further reductions in export subsidies as a result of further WTO negotiations likely directly alter cotton trade. Thus, the narrow commodity focus suggests that the WTO negotiations will have little impact on cotton. However, expanding the analysis to include textiles changes the results.

## **Multi-Fiber Arrangements**

Several textile policies embodied within the URA have had indirect impacts on global cotton trade, and thus, Southern agriculture. Most importantly has been the phase-out of the Multi-Fiber Arrangements (MFAs). The MFAs are bilateral trade agreements between textile producing/consuming countries that limit the flow of textile products from textile producers to consumers (MacDonald and Myers). For example, the US may have an agreement with India, which allows the importation of a given quantity of Indian textiles in exchange for India importing some quantity of US textiles. Under the URA, these MFAs were to be phased-out over a ten-year period (Varangis and Thigpen).

The elimination of the MFAs has the potential to redirect where textile products are produced globally, thus changing global trade flows of the primary input, cotton. That is, as restrictions on exports of textile products from textile producing countries are lifted, textile output and exports by these countries is expected to increase. This is likely to displace some textile production (or at least accelerate the displacement already occurring) in developed countries. As the location of textile production shifts, the demand for cotton will shift to those areas as well, thus altering global cotton trade flows.

As MacDonald and Myers point out, the above is especially true for labor-intensive portions of the textile production process such as cutting, sewing, and assembly of garments. The US and other developed countries currently maintain a competitive advantage in capital-intensive processes such as spinning and weaving where capital and technology are easily substitutable for labor. The US has continually increased exports of cotton containing textile products (Figure 2), due mainly to increased exports of semi-processed goods such as yarns and fabrics. These products are exported primarily to

textile producing countries, which further process those yarns and fabrics into finished consumer goods and re-export them to the US.

### **Net Trade Balance**

The US is traditionally considered a large net exporter of cotton, which is true when only raw (unprocessed) cotton is considered. However, when one considers the cotton content of textile exports and imports as well, a substantially different picture is revealed. Since 1970, the ratio of total cotton (including the cotton content of textiles) exports to total cotton imports has steadily declined (Figure 3). In fact, the US is now a net importer of cotton on this basis. This is not to say that cotton or textile exports have declined. Rather, the increase in imports has outstripped increases in exports, resulting in a declining trade balance. Potentially more important is the fact that these textile imports are higher valued, finished goods as compared to the unprocessed or semi-processed exports, suggesting a more rapid decline in the net balance of value-added.

Part of this shift is likely a result of macroeconomic variables such as wage rate differentials and the relative abundance of labor in these textile-producing countries, giving them a comparative advantage in labor-intensive processes. If this is the case, however, the phase-out of the MFAs can only serve to hasten the movement of textile production from developed to developing countries (MacDonald and Myers). That is, the phase-out of the MFAs has allowed developing, textile-producing countries to more fully exploit their comparative advantage in these labor-intensive production processes.

### **Economic Arguments**

The real question becomes “Is all this shifting of textile production and changes in global cotton trade flows hurting or helping US cotton farmers and the US cotton

industry?” The answer to that question is neither simple nor clear. There is a body of literature dealing with the concept of “intra-industry” trade (Dixon and Stiglitz; Krugman; Ruffin). That is, traditional international trade theory focuses on “inter-industry” trade, or the trading of corn for automobiles for example, on the basis of comparative advantage under the assumption of perfect competition. The intra-industry argument stems from an assumption of imperfect competition and suggests that countries may specialize in a differentiated product within the same product grouping. For example, one country may specialize in the production of sport utility vehicles while another specializes in luxury sedans (Ruffin).

The central point of the intra-industry trade (IIT) argument is that it is entirely possible for two countries to produce similar products, trade those products, and maintain (and in some cases, enhance) the gains from trade. Thus, it would seem plausible that US (and other developed country) specialization in the production of yarns and fabrics (capital-intensive products) and developing country specialization in apparel and finished goods (labor-intensive products) can enhance the overall welfare of both groups.

The IIT argument, however, is not directly on point in this case. Textile production occurs in relatively discrete stages, each of which can be carried out in various locations around the world. The preponderance of world trade is between these stages of the value chain. That is, yarn is exported to weavers, fabrics are exported to assemblers, and final products are exported to consuming countries. This fact would seem to limit any argument on the basis of intra-industry trade.

The counter-argument, grounded in the more traditional Stolper-Samuelson (SS) theory, would suggest that these shifts in textile production are a result of comparative



advantage. That is, the labor-intensive portion of textile production has migrated to areas abundant in labor, while capital-intensive processes have migrated to areas abundant in capital. In this sense, elimination of the MFAs is simply allowing a more efficient allocation of resources, resulting in increased global welfare.

There are, however, some potential negative consequences to this trade liberalization. First, the SS theory shows that importation of labor-intensive goods necessarily decreases the welfare of domestic workers employed in that industry. This hypothesis appears to be borne out by the fact that garment manufacturing is disappearing from the US, thus resulting in lost employment. However, this lost welfare is, at least in part, mitigated by the fact that the jobs that have been created in the US textile complex as a result of technological advances are skilled, higher-wage jobs than their garment-producing counterparts. Thus, the welfare loss appears to be concentrated on unskilled labor.

Second, the negative trade balance in cotton suggests that, on balance, the US is importing foreign-grown cotton (at least a composite of labor and cotton). Thus, the relocation of textile processing to other parts of the world appears to have a negative, albeit small, impact on the cotton production sector. In theory, it should not matter to the cotton producer whether all of his cotton is consumed domestically or exported, as long as he receives the world price. Pragmatically, the existence of a strong domestic textile industry has provided a stable source of demand for US cotton and more effectively buffered the US cotton producer from world demand and supply shocks.

## **Conclusions**

The available evidence to date suggests that, excluding the accession of China into the WTO, future WTO negotiations are likely to have little or no direct impact on the US cotton industry. This conclusion is based on the fact that the majority of global cotton production is produced under the conditions of no or negative protection. Thus, further reductions in domestic or export subsidization are not likely to result in any significant changes in global cotton production or trade.

However, the URA and the WTO have had an indirect impact on global cotton trade through the phase-out of the MFAs. The structural adjustments that have been taking place in textile production (MacDonald and Myers) would suggest an increase in global welfare when viewed from the perspective of the Stolper-Samuelson theory. The ultimate effect on the US cotton producer is unclear, but would appear to be only marginal.

More profoundly, the URA and the phase-out of the MFAs appear to be detrimental to unskilled labor employed in garment and other labor-intensive textiles in the US. Skilled labor appears to benefit from this change through the creation of higher-wage jobs as compared to garment manufacturing. The phase-out of the MFAs also appears to benefit the owners of capital used in the capital-intensive textile processes.

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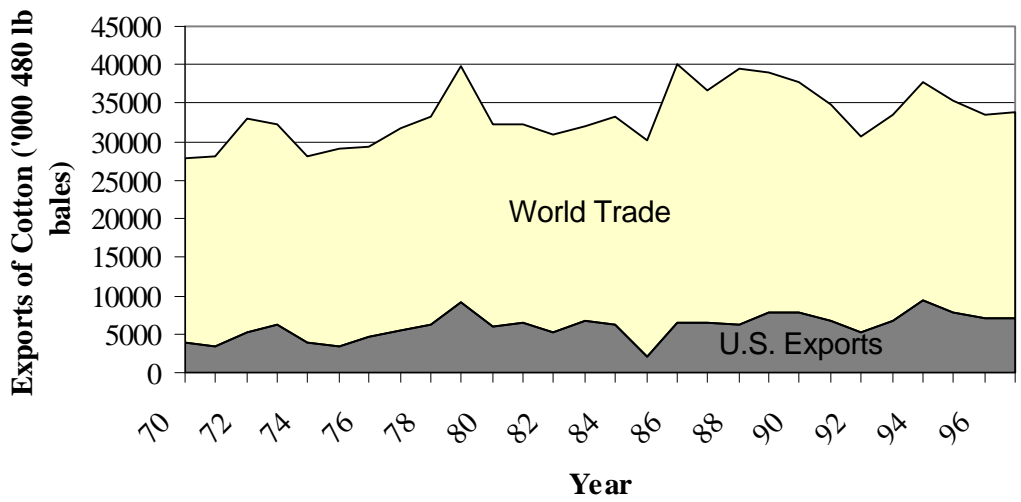


Figure 1. U.S. and World Cotton Exports, 1970-1997.

Source: USDA, Various Issues.

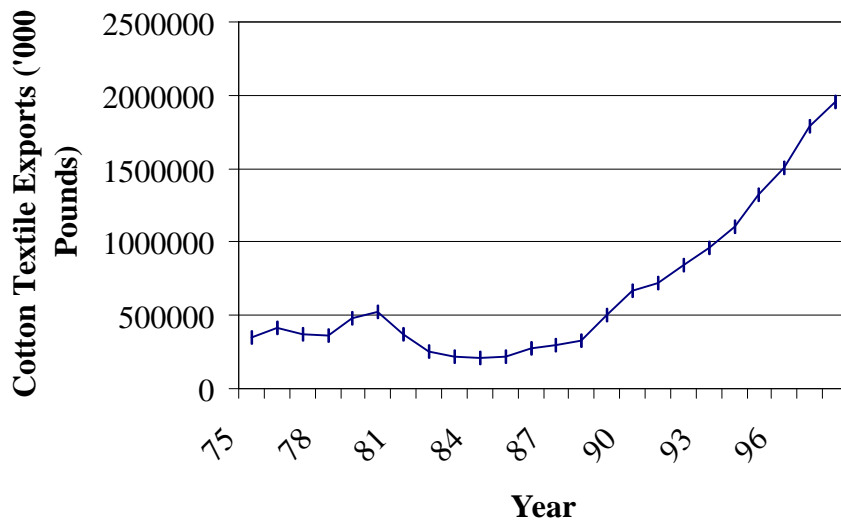


Figure 2. Cotton Equivalent of U.S. Textile Exports, 1975-1998.

Source: USDA, Various Issues.

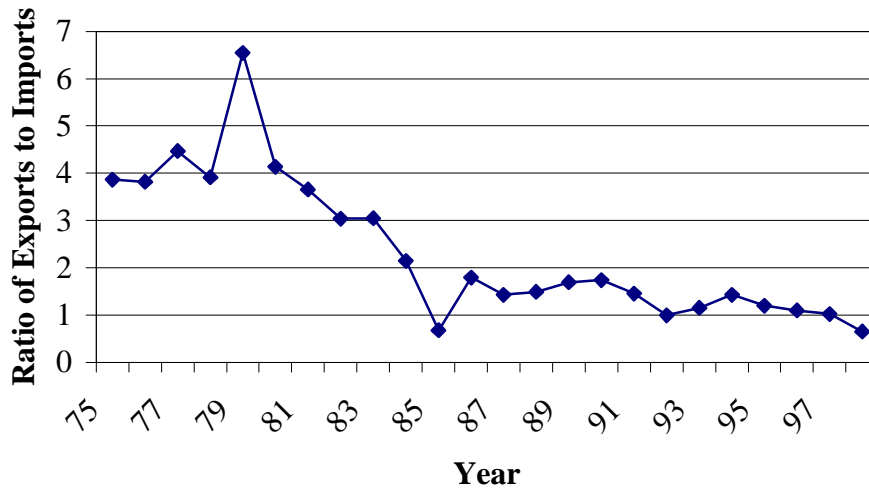


Figure 3. Ratio of US Total Cotton Exports (Including the Cotton Fiber Equivalent of Textile and Apparel Exports) to US Total Cotton Imports, 1975-1998.

Source: USDA, Various Issues.

Note: A value of 1 indicates that exports are equal to imports.