TRADE IN COTTON AND COTTON APPAREL: ISSUES AND DIRECTIONS G. A. Raines III and M. A. Messura¹ Strategic Planning Division Cotton Incorporated Cary, NC

Abstract

The objective of this paper was to study quota usage patterns in countries that export cotton apparel to the United States and to address how sourcing of cotton apparel may be affected by the eventual elimination of quotas on textiles and apparel. The study determined several countries' quota usage patterns for various categories of cotton apparel, these countries' apparel labor costs, and tabulated the product of these two factors. Countries that most frequently ranked high were seen as likely to gain from a shift in U.S. sourcing patterns after 2004, resulting in an eventual increase in market share into the U.S. Countries that most frequently ranked low were seen as likely to suffer a shift away in sourcing after 2004, resulting in decreased market share into the U.S. The analysis found significant variation in potential sourcing shifts among countries, notably with the Indian Subcontinent as the highest-potential region and the Far East as the lowestpotential region to benefit from the quota phase-out after 2004. The research is not meant to be inclusive of all factors involved in the sourcing decision. However, the use of quota analysis is seen as a useful tool in helping to understand possible shifts in sourcing patterns upon the quota phase-out for textiles and apparel in 2005.

Introduction

The past several years have seen the United States' volume of international trade advance at great speed. From the country's founding in 1776 through 1992, U.S. trade grew to \$1.2 trillion; in the eight years since, it has already more than doubled to \$2.5 trillion.² A main component of international commerce is trade in textiles and apparel, accounting for 41.5 % of world exports in 1997.³ Additionally, the largest fiber component of apparel imports into the U.S. is cotton.⁴ Imports of apparel accounted for 59.1% of the total value of clothing sold at retail in the United States in 1999.⁵ This share is nearly 25 percentage points higher than the share garnered by imports in 1993.⁶

The increasing importance of cotton apparel imports into the U.S. market, combined with world textile trade that is rapidly moving in the direction of lower tariffs and the elimination of quotas, creates a dynamic sourcing environment. There is much speculation as to what trade patterns will emerge over the next few years as sourcing companies evaluate the opportunities posed by agreements such as the World Trade Organization's (WTO) Agreement on Textiles and Clothing (ATC) and the Caribbean Basin Trade & Partnership Act (CBTPA). Will Asian suppliers dominate U.S. apparel imports? How much will Mexico continue to grow as a supplier to the U.S.? Will the nations of the Caribbean basin displace Asian countries and other suppliers in the next several years? What will sourcing patterns look like after January 1, 2005 when the "quota-free" world of the Agreement on Textiles and Clothing swings into full operation?

This paper reports the results from an analysis of data for U.S. imports of cotton apparel and the rates of quota utilization for major exporting countries during the period 1995 through 2000. Our hypothesis is that countries that had consistently high rates of quota usage as well as comparatively low labor costs *before* the full implementation of the ATC will be the countries that emerge with the greatest potential to be successful suppliers to the U.S. market in a "quota-free" world. A corollary to that

Reprinted from the *Proceedings of the Beltwide Cotton Conference* Volume 1:250-252 (2001) National Cotton Council, Memphis TN hypothesis is that countries presently not meeting the conditions of high quota usage rates and comparatively low labor costs will face the most competitive pressure to survive in a quota-free world.

When attempting to predict future trade patterns, why look at quota usage rates and not just labor costs? After all, labor costs are a critical expense affecting margins in apparel production. Certainly, there is a strong negative correlation between wage rates and export volume, but we believe a stronger correlation exists when factoring quota usage rates with labor costs. Quota usage rates are viewed as a proxy for more than just labor costs; usage rates may also reflect decisions about capacity, reliability, quality, or non-wage costs in a manufacturing or exporting country. Quota usage analysis is viewed as a multi-faceted measure of trade, unlike labor costs, which are a single component of production.

Analysis

Detailed import data collected by the U.S. Customs Service allow for a close examination of cotton apparel imports. The United States maintains an extensive database of current and historical imports of goods from every country and principality in the world. The database is categorized in a Harmonized Tariff Schedule (HTS) allowing for thorough and efficient recordkeeping of import levels, both in order to oversee quota utilization levels and to manage tariff collections from exporting countries.

The methodology for this study was to determine the top cotton apparel supplying countries to the United States and then to determine their quota utilization levels, or "fill rates," for cotton apparel for the last six years. From these data, we derived an average fill rate and an average annual increase or decrease in fill rate for several different cotton apparel products in each country. We used these data to determine which countries frequently utilize most of their allotted quotas for each cotton apparel category, which countries do not, and which countries are increasing or decreasing the fastest in utilization of quota fill rates.

The top 50 cotton apparel suppliers to the United States, accounting for over 98% of import volume (square meter equivalent basis), were identified and listed in order according to volume.⁷ Twenty-two product categories were identified as main cotton apparel classifications, ranging from men's & boys' knit shirts to undergarments to handkerchiefs. The quota fill rates were recorded for each category in each country for the years 1995 through 2000. Averages for the six years were computed to determine the average fill rate for each country's product. Next, the average annual change in fill rate for each country's category was calculated to determine which countries were increasing or decreasing their utilization of allocated quotas. The country averages then were compiled for each of the seven largest categories of cotton apparel:

- Underwear (category 352),
- men's & boys' trousers, slacks & shorts (category 347),
- women's & girls' trousers, slacks, & shorts (category 348),
- men's & boys' knit shirts (category 338),
- miscellaneous cotton apparel (category 359),
- men's & boys' non-knit shirts (category 340), and
- nightwear & pajamas (category 351).

These seven categories accounted for more than 76% of all cotton apparel imported into the U.S. in 1999. In each category, the countries were grouped into classifications of high quota usage ($\geq 80\%$ average), low quota usage ($\leq 80\%$ average), countries with increasing usage (35% per year), and countries with decreasing usage (£-5% per year). Countries with changes in annual quota usage between +/- 5 % were not counted, as the changes were considered small relative to the changes in other countries. Finally, we included hourly wage costs for each corresponding country, expressed in U.S. dollars per hour.

Findings

The results of our collection and analysis of data were tabulated by category. Several countries display high quota fill rates coupled with low labor costs in the majority of categories, while others display low quota fill rates and relatively high labor costs in the majority of categories. The largest category of cotton apparel imports, underwear, lists several countries with strong quota fill rates and low wage rates, including Bangladesh, China, and Sri Lanka (Table 1). Also, Honduras has a very strong average annual growth in quota fill rate, while maintaining a relatively low labor cost. For these reasons, these countries are believed likely to increase their share of exports to the U.S. in the absence of quotas. Meanwhile, the Dominican Republic, Costa Rica, and Colombia have large average annual decreases of quota fill rates, along with relatively low average quota fill rates. These countries are expected to lose some market share in cotton apparel exports to the U.S. in the absence of quotas.

The second largest category of cotton apparel imports, men's and boys' slacks and shorts, lists several countries with high quota fill rates and low labor costs, including Bangladesh, India, China, Sri Lanka, Indonesia, and United Arab Emirates (Table 2). Additionally, Mexico and United Arab Emirates qualify for the list of high potential countries due to high average annual increases in quota fill rates and relatively low labor costs. Jamaica, the Republic of Korea, Singapore, Turkey, and Brazil have low average quota fill rates, signaling them as low potential countries in the absence of quotas. No countries have significant average annual decreases in quota fill rates.

The third largest category of cotton apparel imports, women's and girls' slacks and shorts, contains several high potential countries with high quota fill rates and low labor costs, including Bangladesh, India, China, Sri Lanka, Indonesia, and United Arab Emirates (Table 3). Again, Mexico and United Arab Emirates are included on the list of high potential countries, as both have high average annual increases in quota fill rates. Conversely, a shift in sourcing is expected away from Singapore, the Republic of Korea, Jamaica, Brazil, and Turkey, as all have lower average quota fill rates and relatively higher wage costs. No countries displayed large average annual decreases in fill rates.

Men's and boys' knit shirts, the fourth largest category of cotton apparel imports into the U.S., shows high quota fill rates and low labor costs in Pakistan, Bangladesh, India, and China, while Mexico displays strong annual increases in quota fill rates (Table 4). These attributes signal these countries as likely to grow their share of exports to the U.S. in this category. Jamaica and Singapore, countries with low quota fill rates, relatively high labor costs, and strong decreasing average annual changes in quota utilization levels, are expected to lose market share in this category after 2004.

The fifth largest category of cotton apparel imports into the U.S. represents other miscellaneous cotton apparel (Table 5). The only high potential country in this category is China, due to its high average quota fill rate and very low wage costs. However, several countries are expected to lose market share after 2004 due to their low average quota fill rates and higher labor costs, including Hong Kong, Taiwan, and the Republic of Korea. Hong Kong and Taiwan also are expected to lose share then due to their large average annual decreases in quota fill rates.

The sixth largest category of cotton apparel imports into the U.S., men's and boys' non-knitted shirts, contains several countries likely to benefit from a shift in sourcing after 2004 including Bangladesh, China, India, and Indonesia (Table 6). Conversely, several countries are considered likely to lose sourcing due to their strong average annual decreases in quota fill rates, including Singapore, Bahrain, Jamaica, and Qatar.

Finally, the seventh largest category of cotton apparel imports, nightwear and pajamas, classifies Pakistan, Bangladesh, India, and China as countries with a high potential to gain market share (Table 7). Thailand is also considered a high potential country due to its high average annual increase in quota fill rate, and low labor costs. Low potential countries are expected to be the Republic of Korea and Mauritius, due to their strong decreases in average annual quota fill rates.

The countries with the most frequent combinations of high quota fill rates, low wage rates, or strong growth in annual quota fill rates across the product categories studied include China, Bangladesh, India, Sri Lanka and Mexico. These countries are viewed as strong candidates to stand out after the quota phase-out. Table 8 summarizes the countries within each major product category believed most likely to increase market share to the U.S. after the quota phase-out. Countries with the most frequent combinations of low quota fill rates, relatively high wage costs, or decreasing change in annual quota fill rates throughout the product categories studied include Singapore, Jamaica, the Republic of Korea, Taiwan and Hong Kong. These countries are viewed as less likely to gain market share to the U.S. after the quota phase-out and are summarized by major product category in Table 9. Interestingly, the majority of potential "losers" are from the Indian Subcontinent, while the majority of potential "losers" are from the Far East region.

Of the top 50 cotton apparel exporters to the U.S. in 1999, the only South American countries listed are Brazil, Colombia and Peru. The only European countries among the top 50 exporters are Turkey, Italy and Russia. Finally, the only African countries among the top 50 exporters are South Africa, Madagascar, Mauritius, Lesotho, Egypt and Morocco. Of these three continents, no countries are seen as likely to realize major gains or losses in market share of apparel exports to the United States in this study.

Discussion

Will these sourcing shifts favor the U.S. cotton and textile industries? Excluding Mexico, the countries most likely to flourish in a non-quota world accounted for only 2.6% of U.S. raw cotton exports and 0.9% of cotton fabric and yarn exports in 2000.⁸ Mexico, meanwhile, led the world in 2000, accounting for approximately 24.0% of U.S. raw cotton exports and 54.7% of cotton fabric and yarn exports from the United States.⁹ A future shift in sourcing to Mexico appears certain to benefit both U.S. raw cotton and U.S. cotton yarn and fabric exports. Excluding Mexico, a shift in sourcing patterns to these other countries would not appear to benefit U.S. raw cotton and U.S. cotton yarn and fabric exports.

However, trends in U.S. textile production and exports have changed markedly in the last several years with the implementation of NAFTA and CBTPA. The U.S. has seen cotton fabric and yarn exports to Mexico and the CBI region, two of our largest foreign markets for these products, rise 116% from 1996 to 1999, compared with 10% for the rest of the world. Accordingly, the world share of cotton fabric and yarn exports to these regions has also risen from 44% to over 60% during the same time period.¹⁰ Should Mexico be a main benefactor of a shift in sourcing patterns, both the U.S. cotton and textile industries should also stand to gain after 2004.

The countries of Singapore, Jamaica, Republic of Korea, Taiwan and Hong Kong have been identified as likely to lose market share after the quota phase-out. These countries accounted for 18.5% of U.S. raw cotton exports last year.¹⁰ In the absence of quotas, a shift in sourcing patterns away from these regions is not expected to be favorable for U.S. raw cotton exports, particularly regarding Hong Kong, the Republic of Korea, and Taiwan. Although Jamaica is eligible for inclusion in the CBTPA program, our analysis suggests that even within a region with high potential such as the Caribbean, Jamaica could face tough competition from its neighbors,

hampering the country's efforts at gaining market share into the U.S. after 2004.

This study is not inclusive of all factors involved in sourcing decisions and assumes *ceteris parabis* on several key issues that are likely to affect sourcing patterns after 2004. These issues include, but are not limited to, variations in currency fluctuations, domestic and foreign trade policy, fashion trends and consumer sentiment toward exporting countries.¹¹

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Table 1. Category 352: Underwear.

| High Potential | Low Potential |
|----------------|--------------------|
| Bangladesh | Colombia |
| China | Costa Rica |
| Honduras | Dominican Republic |
| Sri Lanka | |

| Table 2. | Category | 347: Men's | & Boys' | Trousers, | Slacks, & Shorts. | |
|----------|----------|------------|---------|-----------|-------------------|--|
| | 0 2 | | ~ | | , | |

| High Potential | Low Potential |
|----------------------|-------------------|
| Bangladesh | Brazil |
| China | Jamaica |
| India | Republic of Korea |
| Indonesia | Singapore |
| Mexico | Turkey |
| Sri Lanka | |
| United Arab Emirates | |

Table 3. Category 348: Women's & Girls' Trousers, Slacks, & Shorts.

| High Potential | Low Potential |
|----------------------|-------------------|
| Bangladesh | Brazil |
| China | Jamaica |
| India | Republic of Korea |
| Indonesia | Singapore |
| Mexico | Turkey |
| Sri Lanka | |
| United Arab Emirates | |

| Table 4. Category 558. Well's & I | boys Kint Shifts. | |
|-----------------------------------|----------------------------|--|
| High Potential | Low Potential | |
| Bangladesh | Jamaica | |
| China | Republic of Korea | |
| India | Singapore | |
| Mexico | 01 | |
| Pakistan | | |
| | | |
| Table 5. Category 359: Other Mis | cellaneous Cotton Apparel. | |
| High Potential | Low Potential | |
| China | Hong Kong | |
| | Republic of Korea | |
| | Taiwan | |
| | | |
| Table 6. Category 340: Men's & | Boys' Shirts, Not Knitted. | |
| High Potential | Low Potential | |
| Bangladesh | Bahrain | |
| China | Jamaica | |
| India | Qatar | |
| Indonesia | Singapore | |
| | | |
| Table 7. Category 351: Nightwear | r & Pajamas. | |
| High Potential | Low Potential | |

| High Potential | Low Potential |
|----------------|-------------------|
| Bangladesh | Mauritius |
| China | Republic of Korea |
| India | |
| Pakistan | |
| Thailand | |
| | |

| Table 8. | High Potential | Countries by | Category: | Strong | Quota | Fill | Rates |
|----------|----------------|--------------|-----------|--------|-------|------|-------|
| and Low | Labor Costs. | | | | | | |

| Category* | 352 | 347 | 348 | 338 | 359 | 340 | 351 |
|------------|-----|-----|-----|-----|-----|-----|-----|
| Bangladesh | 1 | 1 | 1 | 1 | | 1 | 1 |
| China | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Honduras | 1 | | | | | | |
| India | | 1 | 1 | 1 | | 1 | 1 |
| Indonesia | | 1 | 1 | | | 1 | |
| Mexico | | 1 | 1 | 1 | | | |
| Pakistan | | | | 1 | | | 1 |
| Sri Lanka | 1 | 1 | 1 | | | | |
| Thailand | | | | | | | 1 |
| UAE | | 1 | 1 | | | | |

(Source: Werner InfoTex, OTEXA)

* Category Correlations

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Category 352: Underwear

Category 347: Men's and boys' trousers, slacks, and shorts

Category 348: Women's and girls' trousers, slacks, and shorts

Category 338: Men's and boys' knit shirts

Category 359: Other miscellaneous cotton apparel

Category 340: Men's and boys' shirts, not knitted

Category 351: Nightwear and pajamas

Table 9. Low Potential Countries by Category:Weak Quota Fill Rates and Higher Labor Costs.

| Category | 352* | 347 | 348 | 338 | 359 | 340 | 351 |
|---------------|------|-----|-----|-----|-----|-----|-----|
| Bahrain | | | | | | 1 | |
| Brazil | | 1 | 1 | | | | |
| Colombia | 1 | | | | | | |
| Costa Rica | 1 | | | | | | |
| Dom. Republic | 1 | | | | | | |
| Hong Kong | | | | | 1 | | |
| Jamaica | | 1 | 1 | 1 | | 1 | |
| Mauritius | | | | | | | 1 |
| Qatar | | | | | | 1 | |
| Rep. of Korea | | 1 | 1 | 1 | 1 | | 1 |
| Singapore | | 1 | 1 | 1 | | 1 | |
| Taiwan | | | | | 1 | | |
| Turkey | | 1 | 1 | | | | |

(Source: Werner InfoTex, OTEXA)