Impacts of Multi-Fiber Arrangement Removal on Textile & Cotton Trade

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Multi-Fiber Arrangement (MFA)

- Protect Importing Countries’ Textile Sector
- Caused an increase in the textile & apparel prices in importing countries, a decrease in the prices in exporting countries and reduction in trade volume.
- Emerged into WTO’s Agreement on Textile Clothing from 1995
- Removal of all MFA Quotas by Jan. 2005
- Impact on Textile/Apparel Trade & Cotton Market
Objective

- Analyze and Quantify the Impact of Elimination of the Multi-Fiber Arrangement on Textile, Apparel and Cotton Market with Alternative Scenarios by Using Equilibrium Displacement Model (EDM)
The United States

- Leading Textiles & Apparel Importer
  - 10.6% & 31.7% of world T&A Imports, 2002 (WTO)
  - Decade Trend of Import Expansion
  - Exports Remain Steady (ERS)

- Leading Cotton Exporter
  - 41.82% of world cotton exports, 2003 (NCC)
  - Cotton Exports Increased
  - Domestic Consumption Declined (ERS)
U.S. Cotton Textile Trade
U.S. Cotton Exports & Share of World Trade

![Graph showing cotton exports and share of world trade over time. The graph displays two vertical axes: one for 'Mil. bales' ranging from 0 to 18 and another for 'Percent' ranging from 0 to 45. The x-axis represents crop years from 1997 to 2005. The data points indicate a general increase in cotton exports and a corresponding rise in the share of world trade.]
People’s Republic of China

- Largest textile exporter to the U.S. under MFA
  - 19.62% of U.S. textile/apparel imports, 2003 (AMTAC)
- Third largest importer of U.S. cotton
  - 28% of U.S. cotton, 2003 (FAS)
- Accession into the WTO
  - Textile: Quota-free access to the U.S. and EU market, but still with tariff
  - Cotton: Agree to reduce TRQ on cotton imports
**U.S. Farm Program**

- **Direct Payment**
  - Fixed
  - Decoupled from current production (ERS)

- **Counter-Cyclical Payment**
  
  \[ CCP \text{ rate} = Target \text{ price} - (DP \text{ rate} + \max\{\text{loan rate, price}\}) \]

  - Reduce revenue variability and risk

- **Loan Deficiency Payment**
  - Fixed
  - Directly coupled to current production
  - Incorporated in the simulation
Scenario 1: Removal of MFA quota

U.S. import demand for textiles (0.2396, 0.2416)
U.S. import demand for apparel (0.3513, 0.3524)
U.S. domestic demand for textiles (-0.0382, -0.0374)
U.S. domestic demand for apparel (-0.2593, -0.2591)
U.S. import price of textiles (-0.1863, -0.1855)
U.S. import price of apparel (-0.2213, -0.2194)
China textiles export supply (0.3455, 0.3454)
China apparel export supply (0.30, 0.3165)
U.S. cotton price (-0.0169, 0.0028)
World adjusted cotton price (0.0043, 0.0201)
U.S. cotton supply (-0.0079, 0.0013)
U.S. demand for domestic cotton (-0.1281, -0.1217)
China’s demand for U.S. cotton (0.1037, 0.1737)
AO’s demand for US cotton (0.0942, 0.1014)
**Scenario 2: Removal of MFA, and 3% decrease in LDP**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Impact Range</th>
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<tbody>
<tr>
<td>U.S. import demand for textiles</td>
<td>(.244, .2604)</td>
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<tr>
<td>U.S. import demand for apparel</td>
<td>(.3419, .3503)</td>
</tr>
<tr>
<td>U.S. domestic demand for textiles</td>
<td>(-.046, -.039)</td>
</tr>
<tr>
<td>U.S. domestic demand for apparel</td>
<td>(-.2607, -.2595)</td>
</tr>
<tr>
<td>U.S. import price of textiles</td>
<td>(-.1847, -.1786)</td>
</tr>
<tr>
<td>U.S. import price of apparel</td>
<td>(-.2175, -.2030)</td>
</tr>
<tr>
<td>China textiles export supply</td>
<td>(.344, .360)</td>
</tr>
<tr>
<td>China apparel export supply</td>
<td>(.332, .458)</td>
</tr>
<tr>
<td>U.S. cotton price</td>
<td>(.0243, .1794)</td>
</tr>
<tr>
<td>World adjusted cotton price</td>
<td>(.035, .156)</td>
</tr>
<tr>
<td>U.S. cotton supply</td>
<td>(-.019, .054)</td>
</tr>
<tr>
<td>U.S. demand for domestic cotton</td>
<td>(-.179, -.132)</td>
</tr>
<tr>
<td>China’s demand for U.S. cotton</td>
<td>(.112, .651)</td>
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<tr>
<td>AO’s demand for US cotton</td>
<td>(.057, .104)</td>
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### Scenarios 3: Removal of MFA, 5% increase in foreign cotton supply

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scenario Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. import demand for textiles</td>
<td>(.234, .2405)</td>
</tr>
<tr>
<td>U.S. import demand for apparel</td>
<td>(.3538, .354)</td>
</tr>
<tr>
<td>U.S. domestic demand for textiles</td>
<td>(-.0376, -.0374)</td>
</tr>
<tr>
<td>U.S. domestic demand for apparel</td>
<td>(-.2602, -.26)</td>
</tr>
<tr>
<td>U.S. import price of textiles</td>
<td>(-.1868, -.1866)</td>
</tr>
<tr>
<td>U.S. import price of apparel</td>
<td>(-.2223, -.2219)</td>
</tr>
<tr>
<td>China textiles export supply</td>
<td>(.3682, .3704)</td>
</tr>
<tr>
<td>China apparel export supply</td>
<td>(.2807, .2831)</td>
</tr>
<tr>
<td>U.S. cotton price</td>
<td>(-.0186, -.014)</td>
</tr>
<tr>
<td>World adjusted cotton price</td>
<td>(-.0143, -.012)</td>
</tr>
<tr>
<td>U.S. cotton supply</td>
<td>(-.044, -.0332)</td>
</tr>
<tr>
<td>U.S. demand for domestic cotton</td>
<td>(-.1311, -.1248)</td>
</tr>
<tr>
<td>China’s demand for U.S. cotton</td>
<td>(.0003, .0597)</td>
</tr>
<tr>
<td>AO’s demand for US cotton</td>
<td>(.0461, .0493)</td>
</tr>
</tbody>
</table>
Scenario 4: Removal of MFA, 3% decrease in LDP & 5% increase in foreign cotton supply

- U.S. import demand for textiles: (.2413, .2416)
- U.S. import demand for apparel: (.3535, .3537)
- U.S. domestic demand for textiles: (-.038, -.0379)
- U.S. domestic demand for apparel: (-.2605, -.2604)
- U.S. import price of textiles: (-.1865, -.1863)
- U.S. import price of apparel: (-.2215, -.2212)
- China textiles export supply: (.3736, .3748)
- China apparel export supply: (.286, .2874)
- U.S. cotton price: (-.0073, -.0048)
- World adjusted cotton price: (-.0092, -.0078)
- U.S. cotton supply: (-.0473, -.0413)
- U.S. demand for domestic cotton: (-.133, -.1305)
- China’s demand for U.S. cotton: (.0099, .0442)
- AO’s demand for US cotton: (.0315, .0361)
Conclusions – Textile & Apparel Market

- The United States
  - Increase in import demand
  - Decrease in domestic demand
  - Decrease in import price

- China
  - Significant increase in export supply with different export mix of textile and apparel
  - Take a larger market share
Conclusions – Cotton Market

- Decrease in LDP rate affected future U.S. cotton price and adjusted world price
- Demand for cotton
  - U.S. Domestic demand continue falling
  - Increase in China and AO with different import mix depending on the presence of increase in foreign cotton supply
- U.S. cotton supply decreased slightly
More Conclusions

- U.S. cotton sector evolves from a primary supplier to its textile industry to a stronger exporting competitor in the global market.
- Policy shock in textile market, MFA quota elimination, have significant impact on cotton (input) market.
- Policy shock in cotton market, decrease in LDP rate, doesn’t have explicit effect on textile market.
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