Textile Value Chain

May 5, 2011
09.30 – 11.30 hrs.
Hotel Steigenberger Frankfurter Hof
(Salon 2)
Frankfurt/Germany

Presentations

• Mr. Fritz Grobien, Albrecht Müller-Pearse/Vice President, Bremen Cotton Exchange
  “Soaring Cotton Prices – What Next”

• Mr. Alejandro Plastina (International Cotton Advisory Committee-ICAC) and Mr. Jon Devine (Cotton Incorporated)
  “Pass-Through Analysis of Cotton Prices – Update”
Soaring Cotton Prices – What Next?

May 2011
“Trying to predict the future is like trying to drive down a country road, at night, with no lights, while looking out the back window.”

(Peter F. Drucker, writer.)
Cotton Overview.

“From over-production to over-consumption.”
Production
Historical Production

Source: ICAC “Cotton World Statistics”
Historical Production

- 40 years trending upwards.
- Over-production.
  - U.S. Farm Bill / E.U. Subsidies
  - Artificially low prices?
  - WTO & Brazil
- Early 2000’s: GM production explosion
Limited Planted Area Variation.

Source: ICAC “Cotton World Statistics”
Yield Gains

Source: ICAC “Cotton World Statistics”
Acreage Outlook

- Irrigated cotton acreage limited by water constraints.
Acreage Outlook

- Irrigated cotton acreage limited by water constraints.
- Competition for acreage between cotton and grains.
Acreage Outlook:
Comparative Crop Prices

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- Food before fibre.
Acreage Outlook

- Irrigated cotton acreage limited by water constraints.
- Competition for acreage between cotton and grains.
- Food before fibre.
- Ethanol mandate displacing food acres.
Food Commodity Prices

Source: Food & Agriculture Organization (U.N.) – March 2011
Acreage Outlook:
Population v Agricultural Land.

- Population Growth Index
- Agricultural Land Growth Index

Index: 1961
Population: 3.07 Bn
Agr. Land: 44.5m sq km

Source: World Bank
Yield Outlook:
Can yields continue upwards?

- ICAC May 2010: “The incoming technological innovations are expected to have greater impacts on production costs than cotton yields.”
- Limited scope for nearby technological increases.
- Potential of bio-engineering & gene technology is difficult to predict.
  - Heat/cold/drought resistance.
  - “Make unsuitable land suitable?”
Production Outlook

- Strong prices will encourage production.
- Fierce acreage competition from food, feed and fuel crops will limit potential production gains.
- Yield increases more gradually and depending upon technological advancement.
Consumption
Consumption.

Source: ICAC “Cotton World Statistics”
Consumption.

- 2004/05 onwards: BRIC country awakening.
- Population migration & middle class expansion.
  - Increasing textile demand
  - Increasing protein demand
- A consumption-driven world economy.
Global Cotton Fibre Consumption

IF

Average global per capita cotton consumption = Average U.S.A. per capita cotton consumption

470m Bales Consumption

4-fold increase in global production requirement
PRC Retail Sales

![Graph showing the trend of retail sales in Trillion RMB from 2000 to 2010. The sales have increased steadily over the years, reaching a peak in 2010.]
PRC Retail Sales
Cotton’s Share of Global Fibre Consumption

Source: ICAC “Cotton World Statistics”
Supply Chain Price Response: The U.S. Cotton Example.

<table>
<thead>
<tr>
<th>Fiber</th>
<th>Yarn</th>
<th>Fabric</th>
<th>Garment</th>
<th>Retail</th>
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</tr>
<tr>
<td>Since August:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up 100%</td>
<td>Up 45%</td>
<td>Up 12%</td>
<td>Up 1%</td>
<td>Down 1%</td>
</tr>
</tbody>
</table>

Source: Cotton Inc & ICAC: “Pass Through Analysis of Cotton Prices”
Consumption continues to grow, driven by demand from developing markets.

Price remains firm & cotton’s share of fibre market continues to decrease on supply limitations.

Cotton increasingly becomes a luxury item.
World Stocks/Use v Spot Futures

Source: ICAC “Cotton World Statistics” September 2010
The Dollar Outlook

- US Budget Deficit Fiscal 2011: 1.66 trillion
- US Public Debt end 2011: 15.8 trillion
- 42 cents in every dollar spent must be borrowed or printed.
- Interest payment on National Debt:
  - $430 billion p.a.
  - About 1/3rd of tax receipts
The Dollar Outlook

- For every 1% in interest rate increase, the interest on National debt will rise approximately 150 billion dollars (35%)

- National Debt increases by more than the annual budget deficit, because it includes off-budget items like appropriations for Iraq/Afghanistan wars.
Gold: The Ultimate Hard Currency
Futures Market: Index Funds

- Moving in from bond markets.
- Global Bond v Commodity Markets (Trillions):
  - Bonds: USD 85
  - Commodity Futures: USD 1.2
  - Commodity OTC: USD 10
Increasing Commodity Index Products
Cotton (lbs) per Gold Oz.
CRB & Gold in USD
Price Outlook

- A new price arena?
  - Limited scope for production increases
  - Increasing consumption.
  - Weak Dollar outlook.

- Strong long-term Prices

- Security & Sustainability of Supply
“Sustainability & Traceability”

- No longer buzzwords.
- Social and environmental credentials = core product attributes.
- The Cocoa example.
The Cocoa Example: Initiatives & Brands
Sustainability in the Cotton Supply Chain

- Retailer/brand needs control & visibility of supply chain to ensure:
  - Security of Supply
  - Security of Price
Cotton labeling and certification

Focus on genetic engineering

Labels & certificates available.

- Organic cotton
- Other labels
  - Cotton Made in Africa
  - Fair Trade cotton
  - Better Cotton Initiative
- Balance

Market Share.

- <2%
- <2%
- above 95%
Characteristics of Biotech cotton

- Herbicide tolerance
  - Plant less stressed by weed
- Insect tolerance
  - Plants less stressed by insects due to BT
- General and Future Prospects
  - Enabling faster breeding of new improved plant varieties by combining useful genes
Benefits of Biotech cotton

- Economical
  - farmer level and further chain – reduction of poverty
- Environmental
  - contribution to sustainability
- Helping to cope with challenges of climate change
- Increased productivity ~ yields
Risks of Biotech cotton

- Pest developing resistance to the toxins being beneficial for the plant
- The toxins negatively affecting other organisms
- Introduction of allergens
Requirements of Cotton Producers

- Production costs $\leftrightarrow$ Revenue
- Land use
- Water use / Irrigation
- Climate
- Input / Use of chemicals (herbicide, insecticide...)
- Other sustainability impacts
- By-products
- Higher quality of the seed cotton
- Higher quality of the cotton lint
Conclusion

- The cotton and textile industries are concerned about supply therefore in the interest of protecting their business they are committing to traceable and sustainable supply with projects to back up the enhancement of that supply.
- The retailers have started to make commitments to stocking sustainably grown and supplied products (M&S, Sainsbury, Otto, Adidas etc.)
- It is critical for all parts of our business to participate in and be committed to it from the start, to become the best provider of traceable and sustainable cotton/textile products to our customers.
- We need to be a one stop shop for traceable sourced, certified cotton/textiles with efficient back up in terms of documentation, reporting, financing, market information, media and PR assistance.
Summary

- Acreage & yield limitations.
- Inflationary price pressures.
- Global Consumption.
- “Security Of Supply”
  - controlling supply @ origin
  - ensuring sustainability & traceability
  - obtaining price stability.
Pass-Through Analysis

What do commodity price increases mean downstream?

• Oil to gasoline?
• Grains to groceries?
• Cotton to clothes?
  – How much?
  – Where?
  – When?
2010/11 Cotton Prices in Context

2010/11 prices up 90¢/lb on average vs. 2009/10

Source: Cotlook, crop-year-to-date August-April
### Theoretical Pass-Through for Cotton

<table>
<thead>
<tr>
<th>Product</th>
<th>Avg. Retail Weight (lbs)</th>
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<tbody>
<tr>
<td>T-shirt</td>
<td>0.40</td>
</tr>
<tr>
<td>Polo Shirt</td>
<td>0.52</td>
</tr>
<tr>
<td>Woven Shirt</td>
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</tr>
<tr>
<td>Jeans</td>
<td>1.54</td>
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Sources: Cotton Incorporated Retail Monitor,™ USDA ERS
# Theoretical Pass-Through for Cotton

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<th>Total Cotton Required (lbs)</th>
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<tr>
<th>Product</th>
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<th>Total Cotton Required (lbs)</th>
<th>Theoretical Effect of 90¢/lb Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-shirt</td>
<td>0.40</td>
<td>0.41</td>
<td>$0.37</td>
</tr>
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<td>0.52</td>
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<td>$1.73</td>
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Sources: Cotton Incorporated Retail Monitor™, USDA ERS
Theoretical Pass-Through for Cotton

Theoretical increase in retail cost due to 90¢/lb increase in cotton prices

<table>
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<th>Item</th>
<th>Increase</th>
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</thead>
<tbody>
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<td>T-shirt</td>
<td>$0.37</td>
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Theoretical Pass-Through for Cotton

Theoretical increase compared to average retail prices

<table>
<thead>
<tr>
<th>Product</th>
<th>Increase %</th>
<th>Average Retail Price</th>
<th>Theoretical Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Shirt</td>
<td>1.9%</td>
<td>$20</td>
<td>$0.37</td>
</tr>
<tr>
<td>Polo Shirt</td>
<td>2.2%</td>
<td>$22</td>
<td>$0.49</td>
</tr>
<tr>
<td>Woven Shirt</td>
<td>1.6%</td>
<td>$28</td>
<td>$0.45</td>
</tr>
<tr>
<td>Jeans</td>
<td>4.8%</td>
<td>$36</td>
<td>$1.73</td>
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Source: Cotton Incorporated Retail Monitor,™
Cotton Supply Chain

- Fiber
- Yarn
- Fabric
- Garment
- Retail
Since August:
Fiber prices up 140%
Yarn prices up 65%

Source: Cotlook
Yarn Prices Less Fiber Prices

Yarn prices less A index in USD/kg

Source: Cotlook, 30s count yarn, Indian yarn prices not quoted since December 2010, pre-December avg for India.
Share of Fiber Price in Yarn Prices

Source: Cotlook, 30s count yarn
Correlation between the Yarn Index and the A Index

lagged correlations 2004/05 to present

Contemporaneous correlation stronger than lagged correlations

Source: Cotlook
Yarn Prices More Responsive

100 week rolling correlation, contemporaneous fiber and yarn prices

Source: Cotlook, yarn prices are 30s count yarn
Cotton Supply Chain

- Fiber
- Yarn
- Fabric
- Garment
- Retail
Yarn to Fabric

Since August:

- Yarn prices up 65%
- Fabric prices up 21%

Sources: Cotlook, Global Trade Atlas
lagged correlations between yarn index and Chinese woven cotton fabric import prices

Sources: Cotlook, Global Trade Atlas
Cotton Supply Chain
Fabric to Garment

Chinese woven fabric imports USD/SME (SA) US cotton apparel imports USD/SME (SA)

Since August:
Fabric prices up 21%
Garment prices up 2%

Sources: Global Trade Atlas, OTEXA
Fabric to Garment

No significant lagged correlations

Sources: Global Trade Atlas, OTEXA
Cotton Supply Chain

Fiber → Yarn → Fabric → Garment → Retail
Garment to Retail

Since August:
- Garment prices up 2%
- Apparel CPI down 1%

Sources: OTEXA, U.S. Dept of Commerce
Garment to Retail

USD/SME cotton dominant apparel imports (SA)

US apparel CPI (SA)

No significant lagged correlations

Sources: OTEXA, U.S. Dept of Commerce
Summary of Current Data

Fiber: Up 140%
Yarn: Up 65%
Fabric: Up 21%
Garment: Up 2%
Retail: Down 1%

Sources: Cotlook, OTEXA, Dept of Commerce
Note: Fiber and yarn data through April, fabric & CPI data through March, US import data (garments) through February
The Consumer

Will consumers accept higher prices?

• Economy improving
• Clothing is a fraction of overall spending
Consumer Expenditures

- Clothing & Shoes: 3.57%
- Energy & Transport: 5.86%
- Food: 8.88%
- Health Care: 15.74%

Source: US Dept of Commerce, values for 2009
The Consumer

Will consumers accept higher prices?

• Economy improving

• Clothing is a fraction of overall spending

• Other rising prices also threaten spending