



## Spinning Responds: The Upstream Effects of Retail Deflation and Imports

Repeating the pattern seen in 2002 and seven of the eight previous years, 2003 started with a decline in the U.S. consumer price index (CPI) for apparel. Year-over-year retail apparel prices dropped for the 34th consecutive month in January, as they had in 57 of the last 60 months. While U.S. retail prices, overall, have increased roughly 3% per year over the last decade, apparel prices have generally declined over that period, slipping 2.8% in 2002. The deflationary trend in apparel prices is pervasive, not only affecting the retail segment of the industry pipeline, but also seeping upstream to depress prices charged by manufacturers and suppliers of textiles and apparel. The recent apparel price declines have affected all retail channels, as shown by data from STS Market Research.

### Apparel Prices Decline Across Retail Channels

Channel	Average Price (\$)		Difference (\$)	Change (%)
	2001	2002		
All channels	20.97	19.99	-0.98	-4.7
Department	28.86	26.76	-2.10	-7.3
National chain	20.84	19.81	-1.04	-5.0
Specialty	22.75	22.58	-0.17	-0.8
Mass merchant	13.70	13.22	-0.47	-3.5
Off-price	19.73	19.71	-0.02	-0.1
Factory outlet	22.49	20.75	-1.74	-7.7
Direct mail	25.68	22.97	-2.70	-10.5
Other	22.90	21.17	-1.72	-7.5

Source: STS Market Research.

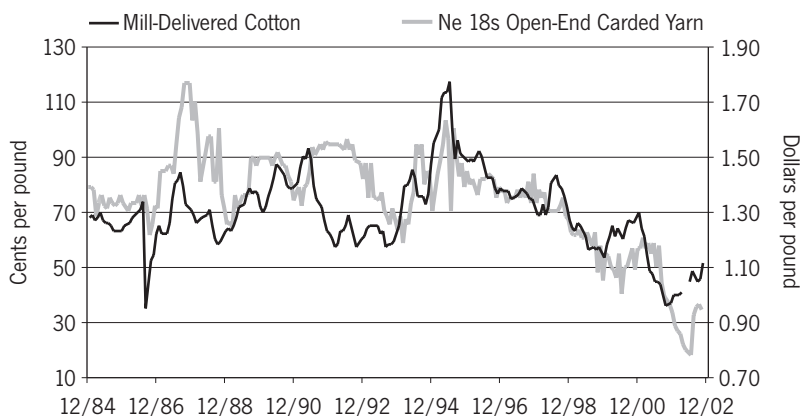
Several causes underlie the considerable downward pressures on retail apparel prices. First and foremost is the tendency of consumers to purchase more clothing from mass merchants. According to Cotton Incorporated's Lifestyle Monitor™, in 2002, 20% of consumers bought most of their apparel at mass merchants, up from 17% in 1994. *Business Week* recently reported that Wal-Mart, the largest mass

merchant and apparel retailer in the United States, saw its share of apparel sales at retail rise to a record 12.9% by the third quarter of 2002. Second, consumers are conditioned to look for and even expect sale prices. Data from STS Market Research indicate that sales of apparel at discounted prices rose from 59.7% in 2001 to 62.7% in 2002. Third, as noted in the fall 2002 *Textile Consumer*, retail floor space in the United States has grown faster than consumers' spending on apparel. The National Research Bureau estimates that the retail selling space of U.S. shopping centers quadrupled from 1970 to 2001, from 1.5 billion to over 5.6 billion square feet, while retail sales only doubled on a constant-dollar basis. The resulting oversupply of selling space implies more competition for relatively fewer consumer dollars. All of these factors have contributed to the downward pressure on retail prices of apparel.

### The Effects of Deflationary Apparel Prices

Declines in apparel prices are pervasive: as retail prices continue to fall, price pressures ultimately affect margins throughout the textile pipeline—for manufacturers, yarn spinners, and fiber producers. Recent research by Cotton Incorporated has uncovered evidence of the effects of declining retail apparel prices on upstream segments of the textile and apparel pipeline. Using price data from 1984 through 2002, the study examined the relationship between changes in raw cotton prices and changes in offering prices for cotton yarns. The study looked at prices for cotton open-end (rotor) carded yarns, ring-spun carded yarns, and ring-spun combed yarns, each of which was further divided according to yarn fineness, based on the English count (Ne) scale. The research revealed significant positive correlations between mill-delivered cotton prices and prices for each yarn type and count. This result was not surprising; however, a key finding was that the strength of these correlations increased markedly over time, as retail apparel prices weakened.

## Yarn Prices Tracks Cotton Prices

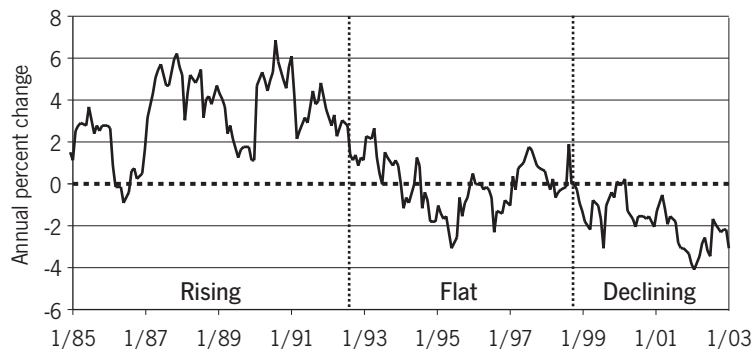


Source: USDA-AMS and Textile World.

This finding suggests that yarn prices have been much more responsive to changes in raw cotton prices during the recent period of pronounced declines in retail apparel prices than they were during earlier periods of increasing or flat apparel prices (these periods are shown in the graph to the right). This in turn suggests that as apparel prices declined, spinners faced more competitive pricing for their yarns, which made yarn offering prices more responsive to changes in raw material costs. The graph below demonstrates how the correlation of yarn prices with raw cotton prices increased for coarse-, medium-, and fine-count yarns as apparel prices evolved from generally

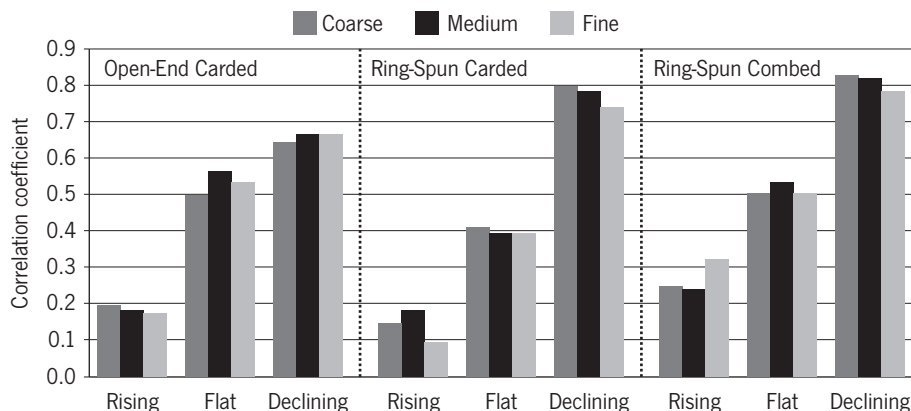
rising during 1985–1992 to trending flat during 1993–1998 to gradually declining from 1999 to the present. The increased yarn price competition also is consistent with the growing influence of brands and retailers on the early segments of the textile pipeline. Increased price competition in retail sales of apparel has spurred downstream segments to become more directly involved in negotiating prices and procedures with upstream suppliers, such as yarn spinners.

## Apparel Prices Show Declining Trend



Source: Bureau of Labor Statistics.

## Correlations Between Yarn Prices and Cotton Prices Strengthen as Apparel Prices Weaken

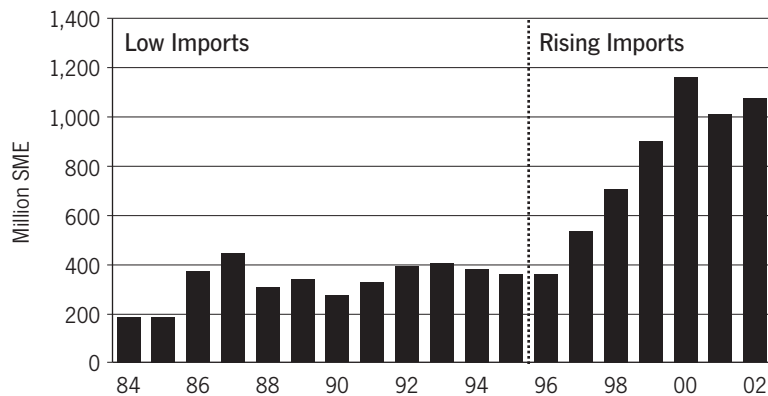


Source: Data from USDA-AMS and Textile World.

## The Effects of Imports

The increasing penetration of foreign spinners in the domestic yarn market also appears to have contributed to the competitive price environment. In yarn import volumes over the last two decades, two periods are clearly discernible: 1984–1995, when the volume of imported cotton carded and combed yarns was relatively flat, and 1996–2002, when imports tripled from less than 360 million to over 1.07 billion square-meter equivalents (SME). Beginning in 1996, the surge in cotton yarn imports coincided with the period when the prices of domesti-

## Cotton Yarn Imports Rise, Starting in 1996



Source: OTEXA.

cally produced yarn became highly correlated with changes in raw cotton prices. Comparing the correlations for open-end carded, ring-spun carded, and ring-spun combed yarns in the period of relatively flat imports with those in the period of rising imports (1996–2002), it again is apparent that yarn prices have become much more responsive to changes in raw cotton prices. As imported yarns have garnered increased market share in the United States, competition between yarn mills has minimized margins and prompted increased attention to raw material costs, reflected in the stronger correlations between raw cotton costs and prices for each yarn type since 1996.

“As retail apparel prices have fallen, yarn prices have become more responsive to cotton prices, decreasing mills’ margins.”

when cotton prices climbed. Thus, yarn prices are more responsive to cotton price declines than increases. In other words, manufacturers have been unable to raise yarn prices to their customers as much during appreciating cotton markets as they must lower yarn prices during down markets.

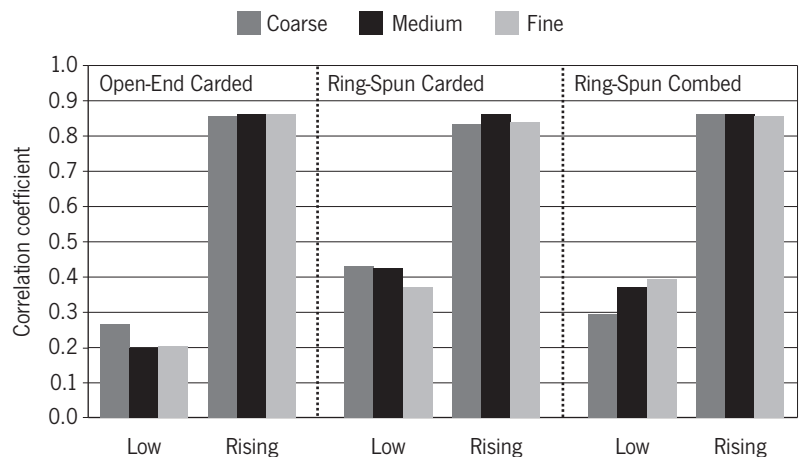
### Conclusions

Consumers and retailers are gaining influence over manufacturers’ decisions on what to produce, how to supply the goods, and how much mills and manufacturers can charge. Changes in the structure of the industry and blurring of the traditional lines

### A Look Inside the Dynamic Relationship

Cotton Incorporated’s study showed significant correlations between cotton and yarn prices, and further demonstrated that prices for open-end and ring-spun yarn have become more responsive to raw cotton prices as apparel prices have declined and imports have risen. Over the period 1984–2002, mill-delivered cotton prices either rose or fell at least 30% between market inflection points ten times (four increases and six decreases).

### Correlations Between Yarn Prices and Cotton Prices Strengthen as Yarn Imports Grow



Source: Data from USDA-AMS and TextileWorld.

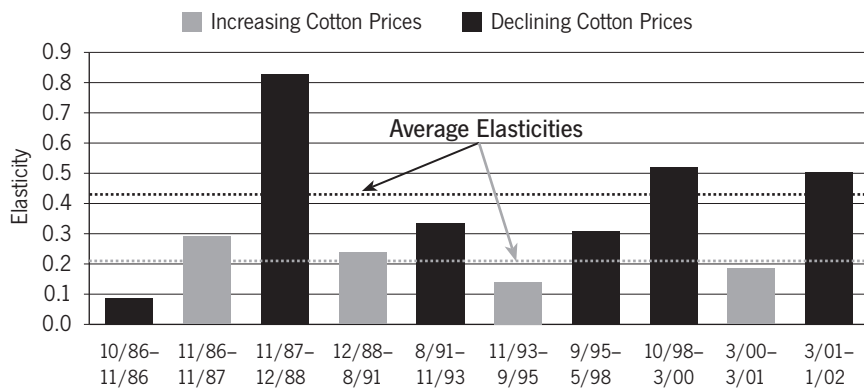
“Yarn imports’ increasing penetration into the domestic market has contributed to the competitive pricing environment.”

separating industry segments have contributed to increase price competition throughout the textile pipeline. This growing influence is evidenced in the changing relationship between raw cotton prices and yarn prices. With apparel price deflation showing no sign of turning around, the price pressures throughout the textile pipeline are likely to continue and move further upstream to manufacturers and suppliers.

Over the last several years, imports accounted for an increasing share of textiles and apparel sold at retail. Similarly, imports of cotton yarns grew faster than domestic yarn production, suggesting that

imports account for a growing share of the U.S. yarn supply. Given the increasing volume of yarn imports, price pressures may likewise begin to influence the relationship between raw cotton prices and foreign yarn prices, affecting the margins available to foreign suppliers. If foreign markets follow similar patterns of increasing responsiveness of yarn prices to cotton price volatility as apparel prices fall, the result could be lower profit potential throughout the global textile supply chain.

### Yarn\* Prices Are More Responsive to Cotton Price Declines Than to Increases



Source: Data from USDA-AMS and Textile World. \*Ne 18s open-end carded cotton yarns.

## Cotton Incorporated

### World Headquarters

6399 Weston Parkway  
Cary, NC 27513  
Tel. (919) 678-2220  
Fax (919) 678-2231

### New York

488 Madison Avenue  
New York, NY 10022-5702  
Tel. (212) 413-8300  
Fax (212) 413-8377

### Mexico City

Av. Insurgentes Sur 1605, Piso 9  
Col. San José Insurgentes 03900  
México D.F.  
Tel. 52-55-5663-4020  
Fax 52-55-5663-4023

### Singapore

250 North Bridge Road  
36-02 Raffles City Tower  
Singapore 0617  
Tel. 65-6337-2265  
Fax 65-6337-3572

### Los Angeles

110 East 9th Street, Suite A-792  
Los Angeles, CA 90079  
Tel. (213) 627-3561  
Fax (213) 627-3270

### Osaka

Osaka Kokusai Building  
27th Floor  
3-13, Azuchi-Machi 2-chome  
Chuo-ku, Osaka, 541, Japan  
Tel. 81-6-266-0707  
Fax 81-6-266-0710

### Shanghai

Unit 2309 & 2310, Plaza 66  
1266 Nanjing Rd (W)  
Shanghai, 200040 China  
Tel. 86-21-6288-1666  
Fax 86-21-6288-3666

[www.cottoninc.com](http://www.cottoninc.com)

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