## A Baleful Look At Cotton

Some professions, such as dentistry, may have some things in their history they might want to keep hidden. Many of the soft commodities have changed world history through means we might not be comfortable discussing today. We cannot discuss global supply outlooks for commodities such as sugar or coffee without noting the crops were transported from the Old World to the New World and grown on plantation-scale with slave labor. The flow was reversed from New World to Old World in the case of rubber, but the principle remains the same.

Cotton has its own special place in American history. It was so unknown to medieval Europeans that a legend, attributing the white fiber brought back by travelers from Central Asia to the Vegetable Lamb of Tartary, was born.





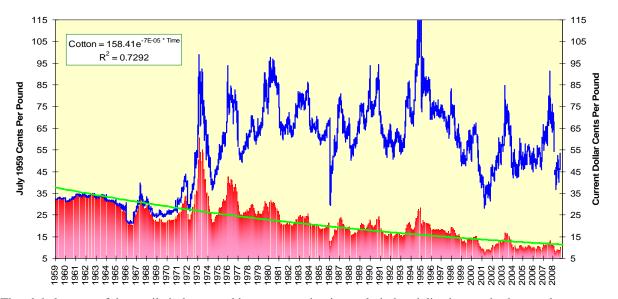
Tobacco and indigo were just as important as cotton to colonial America, but the invention of the cotton gin in 1794 led to cotton's dominance of the economy in the American South, the perpetuation of slavery and ultimately the American Civil War. Cotton was so critical to British and French industries at the time that both countries contemplated intervening on behalf of the Confederacy during the Civil War, their opposition to slavery notwithstanding. Many Confederate bonds sold in Europe were backed by cotton; they lacked the imagination to call them derivatives, however.

Textile manufacture is always amongst the first steps in a country's industrialization. This was certainly true for the British colonies in America. Even today China and India, two rapidly growing industrial powers, are the largest consumers and producers of cotton, respectively.

## **Long-Term Cotton Prices**

Cotton production has been a long-term success story. Even as the world's population has more than doubled since 1959 and global living standards have surged, the price of cotton as deflated by the Producer Price index has declined at .007% per month as seen in **Chart A available at www.sfomag.com**. However, traders do not trade the long-term constant-dollar price of cotton; they trade the short-term current-dollar price of cotton. That price has put in some major trends and sharp reversals over the past half-century. Cotton is subject to both production efficiencies and to income effects. As we saw in 2008, a global recession can cut global textile demand as discretionary clothing purchases can, by definition, be postponed.

Chart A: Real Price of Cotton On Long-Term Downtrend



The global nature of the textile industry and its concentration in newly industrialized countries has put long-term downward pressure on textile prices. If we take the relative performance of the textile & apparel producer price index to the PPI as a whole and map it against the monthly average of cotton prices, we see two dominant features. The first is a long-term decline in the relative textile & apparel PPI. The second is its completely random relationship to cotton prices.

105% 110 U.S. Monthly Average Cotton Price, Cents Per Pound 100% 105 Relative Textile & Apparel PPI, July 1959 = 100% 100 95% 95 90% 90 85 85% 80 Textile PP 75 80% Cotton 70 65 75% 60 70% 55 50 65% 45 60% 40 35 55% 30 25 50% 20 45% 974 1975 1977 1978 1979 1980 1982 1984 1985 988 1990 1983 1989 994 1993 1987

Chart 1: Textiles & Apparel Prices Have Been Immune To Cotton Prices

## **Globalization And Trade**

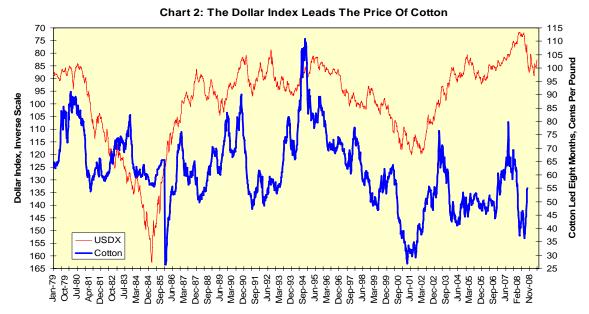
Primary commodity producers such as farmers and miners often lament, and with good reason, how they lose on the terms of trade to their customers. Consider, for example, how much more productive a cotton harvester may be than one from the Eisenhower administration. The manufacturer may have been rewarded for increased productivity, while the cotton farmer has to rely on increased crop yields to offset lower prices.

The lesson of Chart 1 is the American consumer has benefited greatly by importing textiles and apparel for the past half-century; these prices have increased at a far slower rate than has the PPI in general. We should note this has not been a costless process; benefits to consumers have come at the cost of a loss in textile manufacturing jobs.

We should also note in passing cotton is a major trade issue on the production side as well as on the textile manufacturing side. The cotton plant is a hardy one capable of growing in marginal land in places such as Uzbekistan, Pakistan, and Egypt, the aforementioned duo of India and China...and in the highly impoverished

countries of western Africa. Farmers in Mali, Chad and Niger cannot compete with American production efficiencies, but they argue that greater import preferences would be a far more efficient form of development aid than what has been tried to-date. Cotton trade issues were part of the agricultural subsidies battle that led to the collapse of the Doha Round of trade talks in 2008; cotton traders must be cognizant of these issues in formulating their long-term outlooks.

If trade issues are important then so, too, must be currency issues. A weaker dollar, all else held equal, should increase the competitiveness of American cotton in global markets. This appears to be the case; as we can see in Chart 2, the dollar index leads the price of cotton by eight months on average. The fundamental logic here is sound; cotton growers can respond to the prospect of more competitive exports and importers can lock in the price of cotton at a favorable price and exchange rate.



The Battle For Acres

As civilization's fifty-year battle with polyester underscores, cotton has few direct competitors in the final textile market. That polyester is a petrochemical derivative and is affected more by the production costs of terephthalic acid than anything in either the agricultural or currency markets. Wool is not a direct competitor, not unless Victoria's Secret is able to somehow change women's fabric preferences.

Cotton's chief competition comes from the battle for acres against soybeans. The two crops can be grown on many of the same acres in the American South, the Mississippi Delta in particular, and so when soybean prices rise or fall, acreage shifts into and out of soybeans, respectively. This affects the planting intentions for cotton; the average lead time, as seen in Chart 3, is about four months.

1400 Cotton Soybeans 1200 Cotton, Cents Per Pound 1000 950 Soybeans, Cents Per Bushel, 850 700 650 550 500 300 11966 11967 11970 11971 11973 11973 11974 11974 11976 11977 11976 11977 11977 11977 11977 11988 11999 11997 1

Chart 3: Soybeans, Cotton And The Battle For Acres

An interesting secondary input to this competition at the production source is the battle for acres between corn and soybeans. If soybean acres get shifted to corn for the increased production of ethanol, cotton acres could get shifted to soybeans. As the markets for biofuels already have arbitrages between various vegetable oils (see "Fuel In Canada's Fields," May 2009) and petroleum distillates or between sugar, corn and ethanol (see "The Sweet Taste Of Success," March 2009), we are left with the fascinating and inescapable conclusion a textile fabric of little direct use in either the food or energy markets is affected by both.

Cotton's spectacular trends, its straddling of the worlds of both industrial and agricultural commodities, its interplay with currencies, its battle for acres and its key role in international trade issues make it a fun commodity to trade. The Vegetable Lamb of Tartary, had it existed, would have been proud.