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Summary

With this economic outlook report, NCC economists strive to provide information and analyses that will equip the industry to meet today's challenges. An overview of key issues follows in this section with a summary of supply and demand estimates for selected countries in Table 1 on page 6. Detailed discussions and data are more thoroughly presented in subsequent sections.

As 2010 begins, the National Cotton Council's economic outlook for the U.S. cotton industry can be succinctly described as one of recovery. However, before looking forward, it is important to review past events that have shaped, and in some cases reshaped, the industry. Since 2007, U.S. cotton production has experienced a dramatic decline as acres shifted to grains and soybeans. At a time when cotton prices were strengthening, the March 2008 calamity in the futures market rippled through the entire industry and ultimately contributed to the demise of several merchandizing firms. As 2008 progressed, the industry faced record high input costs as oil prices soared. To conclude 2008, turmoil in the financial sector led to a collapse in equity markets.

A global recession persisted through much of 2009 as the world economy contracted by 1%. With little confidence in their economic prospects, consumers took a cautious approach in their spending, as evidenced by the reduction in textile and apparel sales. Coupled with a liquidation of inventories by retailers, world mill use in the 2008 marketing year fell by 10.0%, which was the largest percentage decline since the 1940's.

The lingering effects and uncertainties of the economic downturn continue to present challenges for the U.S. cotton industry. However, data suggest that the worst of the storm has been weathered, and prospects for recovery and growth are replacing the recent concerns.

Before delving into the specifics of the cotton market outlook, it is important to understand the underlying assumptions regarding government policies and the general economy. For government programs, NCC economists generally assume no major policy changes unless there are pending changes that have already received government approval. In the United States, commodity policy is determined by the provisions of the 2008 Farm Bill. For trade agreements of which the U.S. is a signatory, there are no assumed changes for 2010.

Policies in other countries also have a direct impact on the U.S. and world cotton markets. China is assumed to continue to manage their import and stock policies in a manner that will support their internal prices at levels well above world prices. In addition, reports indicate that China is implementing increased support levels for grain production. That could serve to limit the increase in cotton area for 2010.

In 2008, India announced increases of 35 to 40% for their cotton minimum support prices and held those levels into 2009. At the time, those increases moved support levels well above world prices and sharply reduced their competitiveness in world markets. Although no formal announcement has been made regarding 2010 support levels, the outlook assumes no change from the current support levels.

NCC economists rely on outside sources for the necessary macroeconomic assumptions. As witnessed over the past 18 months, gauging the performance of the general economy remains a formidable task, and subsequently, a significant wildcard in the economic outlook. Projections by the International Monetary Fund (IMF), released in late January, call for the world economy to expand by 3.9% in 2010, after a contraction of 0.8% in 2009. This year's economic expansion will be followed by 4.3% growth in real GDP in 2011. However, the IMF cautions that economic recovery is proceeding differently across the world's economies.

Developing countries, particularly those in Asia, are expected to show more robust growth, while recovery in developed economies will remain sluggish and dependent on fiscal stimulus packages. China's economy leads the way with projected growth of 10% for 2010. This follows on the heels of an 8.7% expansion in 2009. India's economy is also viewed in a favorable light with expected growth of 7.7%. For the United States and the Euro area, the IMF projects 2010 real GDP to expand by 2.7% and 1.0%, respectively. Economic forecasters acknowledge that weak consumer confidence, high unemployment rates and increased public debt lend to the fragile nature of the recovery.

Bearing in mind these policy and macroeconomic assumptions, NCC's projections for cotton mill use are a logical place to begin the outlook. Projecting world mill use has always been a difficult task, in part because of the uncertainty surrounding the historical data. For example, China, the world's largest processor of cotton, does not publish official estimates of mill use. Instead, analysts must approximate mill use based on data such as overall yarn production. In the current environment, gauging the recovery in mill use after such a sharp decline in the 2008 marketing year can prove to be particularly challenging. For the 2009 marketing year, NCC estimates world mill use at 114.6 million bales, 3.1% higher than 2008. However, 2009 mill use is still well below the peak levels observed in the 2005 through 2007 marketing years. The 2009 estimate is in line with the long-term trend.

After the downturn in the 2008 marketing year, an improved outlook for the general economy is supporting the recovery in mill use. Yarn values improved in the latter half of calendar 2009 as orders improved. The increase in yarn prices also allowed mills to better accommodate the higher lint prices. Recent expansion in monthly textile trade values also support the estimates of improved mill use. An unknown at this point is the extent to which the rebound in mill use is due to stronger consumer demand or the replenishing of pipeline inventories. For the 2010 marketing year, world mill use is projected to grow by 2.3%, reaching 117.3 million bales. Again, the growth is predicated on the continued improvement in the general economy.

China's textile industry was not immune to the global economic downturn, falling 6.5 million bales in the 2008 marketing year. However, prospects have improved for the 2009 marketing year with mill use estimated at 46.8 million bales. Government policies and incentives under the textile stimulus plan supported their textile industry during the worst of the downturn. Recently, export markets have improved, as have the prospects for 2010 mill use. NCC projects mill use in the 2010 marketing year to reach 48.0 million bales.

The decline in India's cotton use during the 2008 marketing year was not as pronounced as China, perhaps indicative of India being less reliant on textile export markets as an outlet for their production. For the 2009 marketing year, India's mill use is expected to grow to 18.8 million bales, as compared

to 17.9 million bales the year earlier. As India's economy grows by more than 7% per year, cotton mill use will also expand. For the 2010 marketing year, India is projected to process 19.3 million bales, or 16% of the world total.

For mill use, Pakistan is the third largest country behind China and India. Together, the 3 countries account for two-thirds of world mill use. In the 2010 marketing year, Pakistan's mill use is estimated at 12.5 million bales, up from 12.1 million in 2009. In the improving economic environment, countries such as Bangladesh, Indonesia and Vietnam will increase their use of cotton.

In the United States, the slowdown in the general economy compounded the pressure the textile industry has been facing due to imported textile and apparel products. Mill use in the 2008 marketing year fell to 3.6 million bales, down 1.0 million bales from 2007. Through the first half of the 2009 marketing year, the climate has improved and monthly numbers exceeded year-ago values. In early calendar 2010, U.S. textile mills are consuming at an annual rate of 3.7 to 3.8 million bales. It is expected that calendar 2010 mill use will exceed calendar 2009. For marketing years 2009 and 2010, U.S. mill use is estimated at 3.4 million bales

With prospects for global cotton demand improving, will 2010 production respond to meet the increased use? With planting of the Northern Hemisphere crops commencing in the coming weeks, cotton's competitiveness with grains and oilseeds has improved to its most favorable position since prior to the 2006 season. However, more than relative market prices influence acreage decisions. Ultimately, weather, agronomic considerations, and government policies can play a role in farmers' decision. An overview of the Council's production outlook will begin with the United States.

As in past years, the NCC's economic outlook incorporates the results of the annual planting intentions survey, mailed in mid-December 2009. Results, collected through mid-January, indicate that growers will plant 10.1 million acres of cotton, 10.3% more than in 2009. With cotton prices trading 20 cents above year-ago levels and corn and soybean prices essentially unchanged from last year, all regions are expected to increase cotton acres. The largest percentage increases in upland area are reported in the West and the Southeast. with smaller percentage increases in the Southwest and Mid-South. The recovery in cotton area is not limited to upland varieties as ELS respondents indicate that they will increase acres as well. State-level estimates are available in Table 4 on page 48. Improving prices and the commercial availability of Roundup Flex pima in California are expected to bring area back to extra-long staple cotton.

However, weather will ultimately determine the final outcome for U.S. cotton production. For all countries, the outlook assumes normal weather patterns and yields in line with recent trends. For the U.S., average abandonment and yields produce a 2010 crop of 15.5 million bales, compared to 12.4 million in 2009.

The stronger cotton prices are expected to bring additional acres into production outside the United States. However, the expansion could be less than initially anticipated despite world prices trading in the mid- to upper 70's. A relatively conservative recovery in area further illustrates the tug-of-war occurring as a number of crops are competing for available land.

While additional country detail is available in the later sections of the report, the international projections for area and production will be summarized by examining China, India, other Northern Hemisphere countries and the Southern Hemisphere.

In China, seed cotton prices 50% higher than year-ago levels will attract more cotton acres in 2010. However, the expansion could be less than originally expected as increased government support will keep some acres in grains. Cotton area is expected to increase by approximately 5% above the 2009 level. Assuming trend yields, China's cotton production is estimated at 33.8 million bales, 1.8 million bales above 2009.

Dramatic improvements in yields, coupled with expanded area, have allowed India to more than double cotton production in recent years. In 2009, India devoted more than 25 million acres to cotton and harvested a crop of 23.5 million bales. A stronger market and the certainty of the higher support prices contributed to the increased area. For 2010, cotton is again expected to compete for available land, but concerns about food security will dampen further expansion in cotton area. With area projected just 1.8% higher, an expected rebound in 2010 cotton yields is the primary factor behind the projected production of 25.4 million bales

The remaining Northern Hemisphere countries (excluding China, India and the U.S.) accounted for 25.2 million acres in 2009. Major producers included Pakistan, Central Asia, and West Africa. Prior to 2007, the remaining Northern Hemisphere countries accounted for more than 30 million acres of cotton. However, a combination of lower cotton prices and competition from grain crops reduced area in each of the last 3 years. In fact, over the past decade, cotton area in these countries has closely tracked relative prices. Based on current price signals, 2010 cotton area in this region is expected to increase by 8.4%. Production is projected at 29.7 million bales, compared to 26.2 million in 2009.

In the Southern Hemisphere, which is primarily Brazil, Argentina and Australia, plantings for 2010 will commence in the latter half of the year. The resurgence in cotton prices is expected to induce additional acres and production. Across the Southern Hemisphere, production is estimated at 9.5 million bales, up from 8.6 million in 2009.

With reduced area and lower yields, world cotton production for the 2009 marketing year fell to 102.7 million bales, representing the smallest crop since 2003. For the 2010 marketing year, the combined results of the regional and country-level projections generate a world crop of 113.9 million bales. While an 11-million bale rebound in production is substantial, the expected crop falls short of mill use at 117.3 million bales.

After falling sharply in the 2008 marketing year, world cotton trade for the 2009 season is increasing to 34.2 million bales. The U.S. remains the largest exporter with 11.6 million bales for the 2009 marketing year. However, it should be noted that the U.S. share of world trade is sharply lower in the current marketing year as India's exports rebounded from the low 2008 level. Both world trade and U.S. exports are projected to increase in the 2010 marketing year. With world trade at 35.6 million bales and U.S. exports at 12.1 million bales, the U.S. trade share remains at 34%. India, Uzbekistan and West Africa are projected to increase exports as their production recovers.

China remains the largest cotton importer with 9.3 million bales of imports in the 2009 marketing year. Given the projections for mill use and production, China's cotton imports are estimated at 10.9 million bales for the 2010 marketing year. Imports by Bangladesh, Indonesia and Vietnam are projected to increase as mill use expands. In cotton-producing countries such as Pakistan, Turkey and Mexico, larger cotton crops will diminish their import requirements in the 2010 marketing year.

An overview of the stocks and price situation will conclude this summary of the 2010 outlook. After seven months of the 2009 marketing year, it is increasingly clear that global cotton stocks will see their first substantial decline since the 2002 marketing year. The estimated decline of 9.4 million bales will be the largest single-year drawdown since 1986. Mill use of 114.6 million bales and ending stocks of 51.5 million bales results in a stocks-to-use ratio of 45.0%.

In the U.S., ending stocks are projected to fall to 3.7 million bales by the end of the 2009 marketing year. This would be the lowest stocks since the 2003 marketing year and represents a dramatic change from the 10 million bales of stocks just 2 years earlier.

For the 2010 marketing year, U.S. stocks are projected to remain at 3.7 million bales as

the combination of 3.4 million bales of mill use and 12.1 million bales of exports are in line with the projected crop of 15.5 million bales.

Globally, 2010 stocks are expected to decline by 900 thousand bales, bringing the stocks-to-use ratio down to 43.2%. It is also important to note the decline in China's stocks. For the current marketing year, stocks are estimated to fall to 17.8 million bales, down 3 million bales from the previous year. For the 2010 marketing year, stocks are projected to fall to 16.9 million bales, giving a stocks-to-use ratio of 35.2%.

Cotton prices gained momentum in the latter half of 2009 as the balance sheet tightened due to reduced expectations for 2009 production. Prices also found support in an improved general economy and a weaker U.S. \$. For 2010, cotton's balance sheet remains supportive of prices as world production is projected to fall short of consumption. However, the outlook is not without risks and uncertainties, particularly given the fragile nature of the macroeconomic recovery.

Table 1 - Balance Sheet for Selected Countries & Regions

	09/10	10/11	
	(Millio	n Bales)	
World			China *
Production	102.71	113.87	Production
Mill Use	114.57	117.26	Mill Use
Trade	34.22	35.56	Net Exports
Ending Stocks	51.52	50.62	Ending Stocks
United States			India
Production	12.40	15.48	Production
Mill Use	3.42	3.41	Mill Use
Net Exports	11.61	12.09	Net Exports
Ending Stocks	3.67	3.66	Ending Stocks
Mexico			Pakistan
Production	0.42	0.60	Production
Mill Use	1.90	1.91	Mill Use
Net Exports	-1.40	-1.35	Net Exports
Ending Stocks	0.66	0.67	Ending Stocks
Brazil			Indonesia
Production	5.55	5.98	Production
Mill Use	4.20	4.28	Mill Use
Net Exports	1.90	1.88	Net Exports
Ending Stocks	4.59	4.56	Ending Stocks
Turkey			Vietnam
Production	1.70	2.36	Production
Mill Use	5.09	5.18	Mill Use
Net Exports	-3.17	-2.86	Net Exports
Ending Stocks	1.41	1.45	Ending Stocks
West Africa			Bangladesh
Production	2.38	2.61	Production
Mill Use	0.19	0.18	Mill Use
Net Exports	2.26	2.44	Net Exports
Ending Stocks	0.64	0.63	Ending Stocks
Uzbekistan			Australia
Production	4.40	5.20	Production
Mill Use	1.00	1.01	Mill Use
Net Exports	3.99	4.15	Net Exports
Ending Stocks	1.36	1.40	Ending Stocks

	09/10	10/11
	(Million	n Bales)
China *		
Production	32.00	33.77
Mill Use	46.75	48.03
Net Exports	-9.23	-10.84
Ending Stocks	17.84	16.92
India		
Production	23.50	25.44
Mill Use	18.76	19.30
Net Exports	5.97	6.52
Ending Stocks	8.55	8.17
Pakistan		
Production	9.80	10.36
Mill Use	12.10	12.52
Net Exports	-2.26	-2.21
Ending Stocks	4.37	4.39
Indonesia		
Production	0.03	0.03
Mill Use	2.05	2.11
Net Exports	-2.06	-2.11
Ending Stocks	0.34	0.33
Vietnam		
Production	0.01	0.01
Mill Use	1.35	1.45
Net Exports	-1.35	-1.44
Ending Stocks	0.25	0.25
Bangladesh		
Production	0.04	0.04
Mill Use	4.00	4.24
Net Exports	-4.00	-4.19
Ending Stocks	0.73	0.71
Australia		
Production	1.75	2.09
Mill Use	0.04	0.04
Net Exports	1.70	1.82
Ending Stocks	1.02	1.32

* Balance sheet assumes Unaccounted of -2.5 million bales in 09/10 and 10/11.

U.S. and World Economy

The IMF reported in a special January 26th release that the global economy, battered by two years of crisis, is recovering faster than previously anticipated, with world growth bouncing back from negative territory in 2009 to a forecasted growth of 3.9% this year and 4.3% in 2011. Growth is sparked by a rebuilding of corporate inventories, and the unexpected strength of U.S. consumption has contributed to a rebound in confidence. Furthermore, inflation is expected to remain contained. But, high unemployment rates, rising public debt, and, in some countries, weak household balance sheets present further challenges to the recovery.

Ending 2009 on a positive note, heightened consumer sentiment has brought investors back into the market in the U.S. and abroad. Equity markets are expected to continue to deliver good news in 2010, with results driven by three catalysts. First, corporate earnings are showed positive signs for the fourth guarter of 2009 and should continue into 2010. Second, economic growth in the U.S. and around the world is once again expanding close to historical levels. Third, investors still have significant holdings of cash and bonds. Any advance in their sentiment would bring additional capital into the markets supporting the future growth. According to Morningstar, from March through November, investors pulled \$13 billion dollars out of U.S. stock funds and placed \$239 billion in bond funds, implying there is plenty of capital on the sidelines.

After a rough 2009, the global economy looks to be recovering from the financial crisis. It must be highlighted that growth is still largely supported by stimulus measures put in place by numerous countries around the world. Now these entities face the daunting task of withdrawing these measures and risk negative impacts.

The Consumer Sentiment Index is a tool designed by the University of Michigan's Survey Research Center to gauge the mood of the American consumer with regards to the economy. According to this index, the American consumer's confidence rebounded to 72.5 in December 2009 and averaged 66.3 for the year, after hitting a record 28-year low of 55.3 in November 2008 (Figure 1). Further improvement occurred this year with January up to 72.8.



Figure 1 - Consumer Sentiment Index

Looking further into 2010, consumer confidence faces several hurdles with one being unemployment close to a 26-year high and projected to average 10% this year. With consumer spending accounting for 70% of the U.S. economy, any advance in confidence will depend largely on sustained job growth that has not yet materialized. Consumers currently are leery to fully embrace the current growth in the economic figures as they worry about job losses, high unemployment, rising foreclosures, high energy costs and tight credit conditions.

U.S. Gross Domestic Product

As determined by the Bureau of Economic Analysis, the U.S. 2009 third quarter real Gross Domestic Product (GDP) expanded by 2.2% (Figure 2) from the second quarter, after experiencing declines in the previous four quarters of -0.7%, -6.4%, -5.4% and -2.7%, respectively. The upturn is primarily contributed to changes in personal consumption expenditures, exports, private inventory investment and federal government spending. The IMF's U.S. economic projections are improving with 2010 growth at to 2.7% and flattening some in 2011 to 2.4%.



Figure 2 - Change in U.S. Real GDP

Expectations for 2010 are improving as evidenced by the recent, faster than expected improvements in the financial conditions which have abated fears of the U.S. experiencing a 1930's style crash. Just as uncertainty sent the markets spiraling downward, a stable financial market sentiment could cause a surge in consumption and investment in both advanced and emerging markets. A concern that weighs on the markets is that higher and more volatile oil prices could hinder growth. Another factor that must be watched is inflation risk. Central banks may feel compelled to tighten monetary policy to quell any expected inflation pressure.

Access to credit will continue to encumber spending as the Federal Reserve reported that consumer credit decreased at an annual rate of 8.5% in November, revolving credit decreased at an annual rate of 18.5%, and non-revolving credit decreased at an annual rate of 3.0%.

U.S. household consumption declined sharply in late 2008, against the backdrop of a deepening financial crisis. Personal consumption expenditures, which had peaked above 95% of disposable personal income in 2005, fell below 92% by the second quarter of 2009. This decline broke the trend of steady increases in the U.S. consumption rate since the 1980s (Figure 3).



Figure 3 - Change in U.S. Real Personal Consumption Expenditures

Both business and residential investment fell to extraordinarily low levels in response to the previous overbuilding of the housing stock and the falloff in demand for goods and services. U.S. private investment has been on the defensive since 2005 and bottomed out mid-2009 as a diminishing housing market restricted credit lines and eliminated housing wealth. A sharp recovery occurred in residential investment the second half of 2009 as consumers took advantage of deep discounts (Figure 4).



Figure 4 - Change in U.S. Real Private Investment

There are several negative factors that will have lasting effects on U.S. consumption and private investment beyond the immediate crisis. In the near future, asset prices and household wealth are not likely to return to their pre-crisis highs. Credit conditions are likely to remain tighter than in the past decade, reflecting a renewed appreciation of risks and the decline in wealth—including housing wealth which tends to recover very slowly. However, perceived uncertainty facing households could remain high longer than many economists expect, given the anemic pace of recovery, slow job creation and lingering concerns of a double dip recession. The drastic 2008 surge in the uncertainty will have a lasting effect on consumption and wealth

U.S. Employment

The U.S. work force continued its steady contraction that has been ongoing over the last several years, bottoming out at 58.4% in October (Figure 5). In November 2009, employment edged up to 58.5% of the U.S. civilian population.



Figure 5 - Civilian Employment

Employment in manufacturing jobs steadily declined to a low of 11.6 million in December 2009 (Figure 6). The average monthly decline for the second half of 2009 was -41,000 jobs, much lower than the first half of the year at -171,000. Since the recession began, manufacturing employment has fallen by 2.1 million; three-fourths of this drop occurred in the durable goods component.



Figure 6 - Manufacturing Employment

Both the December 2009 number for unemployed persons, at 15.3 million, and the unemployment rate, at 10.0%, were unchanged from the previous month. At the start of the recession in December 2007, the number of unemployed persons was 7.7 million, and the unemployment rate was only 5.0% (Figure 7). Most sources conclude that the high rate of unemployment for 2009 will be maintained through most of 2010. Respondents to the Livingston Survey in December projects the unemployment rate for June 2010 at 10.3% and starting a modest recovery to 9.9% by December 2010. The Congressional Budget Office (CBO) notes that even though GDP began to grow in the second half of 2009, the unemployment rate may well take over a year before it subsides. Their estimate for 2010 is at 10.1%, waning slightly in 2011 to 9.5%.



Figure 7 - Civilian Unemployment Rate

Even though financial markets are in a better state than they were a year ago, some issues remain. With that noted, consumers and businesses will likely remain cautious, resulting in a slow employment recovery.

U.S. Housing Market

The housing industry is a key barometer of the well-being of the economy. With the tightening of credit and new lending rules, this sector of the economy will remain fragile for the foreseeable future. New housing starts hit a low and bounced, but bottomed in April before stabilizing for the remainder of the year. Housing starts for December 2009 were at a seasonally adjusted annual rate of 557,000 at roughly the same level as December 2008 (Figure 8). The CBO estimates that there were roughly 2.5 million excess vacant housing units, on average during the second half of 2009.



Figure 8 - U.S. New Residential Construction

New single family building permits dropped sharply through the first quarter of 2009 to a historical low of 498,000 units and then showed some recovery over the course of the year with December 2009 at 653,000 (Figure 9). Since late 2008, housing permits and housing under construction have tracked closely with the other, demonstrating the distress builders are encountering in obtaining financing. One bright spot came with the latest release reporting December 2010 building permits jumped almost 11% from the prior month.



Figure 9 - U.S. Housing Permits

Over the past year, seasonally adjusted home prices fell 3.8% between the 3rd

quarter of 2008 and the 3rd quarter of 2009, according to the Federal Housing Finance Agency. The agency tracks prices on homes purchased with loans backed by Fannie Mae and Freddie Mac. On a positive note, housing prices broke through during the third quarter of 2009 as the quarterly annualized appreciation was up 1% after 8 straight declining quarters.

Since 2008, the Treasury has spent more than \$112 billion to assist in shoring up Fannie Mae and Freddie Mac, with further support from the Federal Reserve of \$1 trillion-plus to purchase mortgage backed securities since the start of 2009. Additional efforts came from the Home Affordable Modification Program and the tax credit for first time home-buyers. These government actions provided some support throughout the year as average home prices showed some recovery during the second half of the year.

The relief offered by the Federal Reserve, which is intended to make home buying more affordable and prop up the housing market, is scheduled to run out of funds in the spring of 2010. The average rate on a U.S. 30-year fixed mortgage rate in mid-January 2010 is 5.06%, slightly above the record low in December at 4.71% (Figure 10).



Figure 10 - 30-Year Mortgage Rate

For the week ending January 15, total home loan applications rose by 9.1%, marking the third straight week of increases. In many cases, borrowers scrambling to take advantage of low borrowing cost and tax incentives before they expire. Despite the incentives for new buyers, over 71% of the mortgage applications are for refinancing.

Foreclosures reached record filings of near 3 million households in 2009. In other words, roughly 1 out of every 45 homes was in default. As bad as the numbers were, they could have been worse if it had not been for delays in processing delinquent loans. In spite of the 21% increase in filings, only 871,086 were actually repossessed, up just 1% from 2008.

Nonresidential real estate conditions remained soft across most of the U.S., while the nonresidential construction activity was generally weak.

Some experts fear the housing sector will flatten or even fall during the first half of 2010. One main concern is the massive supply of delinquent loans looming over the housing market, many of which will end up in foreclosure in 2010. In addition, adjustable rate mortgages across some 350,000 borrowers will hit their amortizing point. These loans will carry a higher monthly mortgage payment compared to the current level, which might not even cover the interest.

Federal Reserve Board

The Federal Reserve controls the three tools of monetary policy -- open market operations, the discount rate, and reserve requirements. The Board of Governors of the Federal Reserve System is responsible for the discount rate and reserve requirements, and the Federal Open Market Committee is responsible for open market operations. Primarily, the federal fund rate is the tool for influencing the economy – the interest rate that banks charge each other for overnight loans. Over the course of the year, the fed fund rate averaged 0.16% and started the 2010 year at 0.09% (Figure 11).



Figure 11 - Federal Funds Rate

Combining the various factors likely to influence the path of economic activity in 2010, including the outlook for financial markets, it is expected that the economic recovery will continue at a moderate pace. As the year progresses, it is anticipated that improvements in financial markets, credit conditions, and business sales will reinforce improved prospects for 2011. Under the current conditions, it appears warranted that the federal fund rate will stay at these exceptional low levels for an extended period.

Federal Budget Situation

The severe economic downturn and nearly unprecedented turmoil in the financial systems over the past two years, combined with federal policies implemented in response to those conditions, have caused deficits to climb dramatically.

The Congressional Budget Office (CBO) estimates for fiscal year 2010 that federal spending will total \$3.5 trillion and revenue will only reach \$2.2 trillion (Figure 12), resulting in a deficit of \$1.3 trillion. This is just \$65 billion less than 2009's shortfall and more than three times the size of the deficit recorded in 2008.



Figure 12 - Projected U.S. Federal Budget

CBO's projected federal budget deficit of \$1.3 trillion for fiscal year 2010 is slightly smaller than the previous year at \$1.4 trillion (Figure 13), or as a % of GDP, at 9.2% and 9.9%, respectively. Last year's deficit represented the largest share of GDP since the end of World War II, and the deficit expected for 2010 would be the second largest.



Figure 13 - U.S. Federal Budget Surplus

CBO estimates that 2010 outlays under the Troubled Assets Relief Program (TARP) will fall by \$218 billion. In addition, net spending on federal deposit insurance is expected to drop by \$27 billion, and although the housing sector remains weak, outlays for Fannie Mae and Freddie Mac will be lower as well. However, spending in other areas is expected to rise. In particular, the spending under the American Recovery and Reinvestment Act (ARRA) will grow by \$112 billion. Furthermore, unemployment compensation is expected to continue growing from its record 2009 level of \$75 billion to \$82 billion in 2010. Emergency benefits will boost spending by another \$3 billion, and Supplemental Nutrition Assistance Program will rise from \$51 billion in 2009 to \$60 billion.

Spending for Social Security, Medicare and Medicaid will continue to grow faster than the economy as a whole, rising by nearly 6% for the three programs combined. In addition, outlays for retirement, disability, and education benefits for veterans will grow by 16%, and all other mandatory programs are projected to increase by 6%.

The federal fiscal outlook beyond this year is daunting with projected deficits averaging \$600 billion per year over the 2011 to 2020 period. Moreover, the baseline projections understate the budget deficits that would result under many observers' interpretation of current policy efforts as opposed to current law.

Consumer and Producer Price Indices

Inflation acts as a tax on investment by increasing the cost of equity-financed investment and reducing corporate equity values. U.S. inflation is commonly measured by the Consumer Price Index (CPI) and the Producer Price Index (PPI).

Measured by the December-to-December change, the CPI rose 2.7% in 2009, according to Labor Department figures, well above the 0.1% gain in 2008 (Figure 14) and in line with the 10 year average at 2.5%. The 2009 December-to-December inflation reflects changes in the energy index, which rose 18.2% during 2009, after falling 21.3% in the latter half of 2008. On an annual average basis, the CPI declined by 0.4% in 2009.



Figure 14 - Consumer Price Index

In 2009, consumers benefited from lower agricultural commodity prices as the food index fell 0.5%, the first December-to-December decline since 1961. The index for food away from home rose 1.9% while the food at home index fell 2.4%. Within food at home, all six major grocery food groups posted declines, after rising in 2008. Excluding food and energy, core consumer annual inflation was moderate at 1.8%, the same level experienced in 2008.

On a December-to-December basis, the PPI for all commodities rose in 2009 by 4.4%, which is above pre-recession average inflation (Figure 15). For the year as a whole, the PPI for all commodities declined by 2.5%, the largest drop since 1949.



Figure 15 - Producer Price Index

Looking at the annual average, sluggish demand that comes with a slow economic recovery is preventing producers from raising selling prices. This might give the Federal Reserve a reason to support the economy by keeping interest rates near zero.

Energy Prices and Supply

Global oil markets should gradually tighten in 2010 and 2011 provided the world economic recovery continues as projected. In 2009, world oil demand declined for the second consecutive year, which was the first back-to-back decline since 1983, After bottoming in the middle of 2009, demand began to recover as the world economy improved.

At their December 2009 meeting, the Organization of the Petroleum Exporting Countries (OPEC) decided to keep current oil production levels unchanged. Although OPEC faces a global oil market that has firmed in response to its production cuts since last January, the strength and durability of the global economic recovery is still uncertain. The Department of Energy's Energy Information Administration (EIA) expects that annual average OPEC crude oil production, which declined by almost 2.2 million barrels per day on average in 2009, will increase by an average of 500 thousand barrels per day through 2011 as global oil demand recovers.

OPEC surplus crude oil production capacity, which averaged 2.8 million barrels per day during the 1998-2008 period, will continue to remain high, with surplus capacity reaching almost 6 million barrels per day over the next two years. As a result of the slow growth in non-OPEC supplies, OPEC's market share is projected to increase from 40% in 2009 to 42% in 2011. The combination of higher market share and the relatively high surplus levels of production capacity could lead to a greater influence over world markets.

Non-OPEC supply increased more than 0.6 million barrels per day in 2009, the largest annual increase since 2004. Higher production in the United States. Brazil. and the Former Soviet Union (FSU) were the largest contributors to this growth. However, little net increase in non-OPEC supply is expected in the short term. EIA projects non-OPEC supply increases of 400,000 barrels per day in 2010, but then declines by more than 100,000 in 2011. The largest source of growth comes from Brazil, the result of rising offshore capacity and biofuels production. However, large declines in production from the North Sea and Mexico are responsible for offsetting these gains.

In 2009, the West Texas Intermediate (WTI) crude oil prices averaged \$62 per barrel. Assuming U.S. real GDP grows by 2.0% in 2010 and by 2.7% 2011, while world oilconsumption-weighted real GDP grows by 2.5% and 3.7% in 2010 and 2011, respectively, prices are projected to average \$80 and \$84 per barrel in 2010 and 2011, respectively (Figure 16).



Figure 16 - WTX Intermediate Crude Oil Price

Retail diesel fuel prices (Figure 17), which averaged \$2.46 per gallon in 2009, are projected by EIA to average \$2.98 and \$3.14 per gallon in 2010 and 2011, respectively. The expected recovery in the consumption of diesel fuel in the United States, as well as growth in distillate fuel usage abroad should strengthen refining margins.



Figure 17 - Retail Diesel Fuel Price

High natural gas storage levels, combined with enhanced domestic production capabilities and slow consumption growth, are expected to keep prices from rising dramatically in the next two years. The Henry Hub spot price averaged \$4.06 per thousand cubic foot (Mcf) in 2009 (Figure 18). Current spot prices are forecast to average \$5.36 in 2010 and \$6.12 in 2011.



Figure 18 - Henry Hub Natural Gas Price

In 2009, U.S. natural gas production expanded by 3.7%, despite a 59% decline in the working natural gas rig count from September 2008 to July 2009. Production in 2010 is projected to decline 3.0% due to steep declines from initial production at newly drilled wells and the lagged effect of reduced drilling activity. EIA expects marketed production to increase by 1.3% in 2011 with growth in production from the lower-48 non-Gulf of Mexico (GOM) fields.

U.S. Equity Markets

As financial turmoil continued into 2009, global equity markets were on a roller coaster as panic stricken investors took steps to protect against large losses. From January 1 through March 9, 2009, the Dow Jones Industrials Average (Dow) declined 27.5%, setting a low for the year at 6,547. Markets then turned as stability in the financial sector gained some momentum, and a bull market took over for the remainder of the year, gaining 59% by year's end. It was one of the fastest climbs experienced since 1933. The Dow ended 2009 at 10,428, a rise of 15% for the year (Figure 19).



Figure 19 - Dow Jones Industrials

Rebound in the NASDAQ was slightly lower, finishing the year at 2,269, up 637 or 39%. The S&P 500 rose in 9 of the last 10 months of the year and bounced off its low with a growth of 68%. For the year, it settled at 1,115, increasing 183 points or 20%.

World Economies

After a deep global recession, economic growth has turned positive as wide-ranging public intervention has supported demand and lowered uncertainty and systematic risk in financial markets. The recovery could be hindered as governments withdraw their support. In addition, households that suffered severe asset price declines will continue to rebuild savings while struggling with high unemployment.

According to the IMF, world real GDP declined 0.8% in 2009, compared to 3.0% growth in 2008. The latest forecast call for 2010 growth to reach 3.9% (Figure 20), similar to pre-recession levels. A gradual improvement is projected for 2011 with growth of 4.3%. Economic activity in advanced economies contracted by 3.2% in 2009, after positive growth of 0.5% in 2008. This marks the first annual contraction in the postwar period. Emerging and developing economies grew by just 2.1% in 2009, well below historical growth rates. For 2010, growth is expected to recover to 6.0%, with further expansion of 6.3% in 2011.



Figure 20 - World Real GDP Growth

China's economic growth slowed in both 2008 and 2009, but still reached a very respectable 9.6% and 8.7% over the 2-year period (Figure 21). IMF projects China's 2010 GDP growth rate will recover to 10.0%, and in 2011, to 9.7%. Recovery in China is being fueled by extensive fiscal and monetary policy stimuli and a rebound in the global manufacturing cycle. Another contributing factor has been inventory rebuilding as firms replenish the pipeline after inventories were liquidated in response to the sharp decline in demand in 2008.



Figure 21 - China Real GDP Growth

Developing and emerging economies are on the road to recovery in 2010 (Table 2). In general, emerging economies like China, India and Pakistan withstood the financial turmoil much better than expected based on past experiences.

Year-Over-Year % Changes				
	2008e	2009e	2010f	2011f
World	3.0	-0.8	3.9	4.3
U.S.	0.4	-2.5	2.7	2.4
Euro Area	0.6	-3.9	1.0	1.6
Japan	-1.2	-5.3	1.7	2.2
China	9.6	8.7	10.0	9.7
India	7.3	5.6	7.7	7.8
Russia	5.6	-9.0	3.6	3.4
Brazil	5.1	-0.4	4.7	3.7
Mexico	1.3	-6.8	4.0	4.7
Source: International Monetary Fund January 2010				

Table	2 -	Selected	Economies:	Real	GDP
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Since the first quarter of 2009, equity markets posted strong gains, corporate risk spreads declined, and spreads in interbank markets fell to levels similar to rates that prevailed prior to the large bank failures in the U.S. in 2008. Investors are beginning to allocate an increasing amount of funds away from government secure bonds in search of higher yields.

Emerging markets, particularly in Asia, are leading the economic recovery, but advanced economies are still gaining ground quicker than anticipated. However, the recovery is fragile and growth, particularly in advanced economies, remains dependent on government stimulus measures.

Asian markets reacted positively throughout 2009 with some responding to external demand while others focused on internal matters (Figure 22). Japan's Nikkei underperformed compared to their peers for the whole of 2009, but the exchange enjoyed a strong December, ending the year up 19%. The Hong Kong Hang Seng market jumped 45% from the start of the year, recouping most of the losses of 2008. Recently, the market has pulled back due to fears of Beijing reining in lending.



Figure 22 - Asian Stock Indexes

Exchange Rates

During periods of market uncertainty, traders sell currencies that are perceived riskier and place their bets in safe havens. One sign that stability is returning to the global economy is an easing of the volatility in major currency pairs. Now, many traders turn to a carry-trade strategy as they seek to profit from the interest rate differential between currencies.

The U.S. dollar enjoyed a short lived rally against the Euro as funds flowed away from the dollar in the early part of 2009 (Figure 23). During this past month, the dollar gained some strength, as there has been growing concerns in regards to Greece's deteriorating public finances. Those concerns have triggered one of the worst crises in the Euro zone since the introduction of a single currency.



Figure 23 – Euro

In 2009, Japan's economy contracted by 5.3%, the deepest of any major economy. However, their economy is projected to recover in 2010, but most likely it will underperform the U.S. growth expectations. The Japanese yen has found support recently across many of the major currencies as risk aversion spurred demand (Figure 24).



Figure 24 - Japanese Yen

An overriding trend across most currency markets played out this past year with a strengthening of the dollar in the first quarter of the year, followed by a steady decline. In part, this can be attributed to the election of a new President and a rather generous stimulus package that was passed by Congress. However, as jobs and growth continued to deteriorate over the year, so did confidence for a quick U.S. recovery and the strength of the dollar. This held true for the Brazilian Real, South Korean Won, Indian Rupee and the Indonesian Rupiah (Figures 25-29). Only in China and Pakistan did the trend differ.



Figure 25 - Brazilian Real



Figure 26 - South Korean Won







Figure 28 - Indonesian Rupiah



Figure 29 - Pakistani Rupee

China's economic rebound from the global downturn proved to be more robust than any other large economy, thanks largely to enormous monetary and fiscal stimulus. In 2009, China's real GDP is estimated to have grown by 10.0%. But many skeptics claim that their recovery is built on shaky foundations. The Chinese renminbi continues its holding pattern against the dollar that first began in mid-2008 (Figure 30). Currently, there are worries that China may tighten monetary policy, which would fuel demand for the dollar and likely dampen commodity prices.



Figure 30 - Chinese Renminbi

The Federal Reserve Board publishes a real exchange rate index comparing the dollar to a weighted average of currencies of important trading partners, excluding major developed economies. Between July 2008 and March 2009, the trade weighted index jumped 21 percentage points and then gave up half of those gains by the end of 2009 (Figure 31).

Boosted by growth in China and other emerging markets, commodity-backed currencies look set to outperform the dollar and euro in the early part of 2010.



Figure 31 - Real Exchange Rate Index

Commodity Prices

The Commodity Research Bureau (CRB) maintains an index of commodity price movements. The commodities included in the index range from traditional U.S. agricultural commodities to heavily traded international products such as cocoa, coffee and sugar to metals and energy. The index is a combination of arithmetic and geometric averaging which means its absolute value at any one time is not particularly informative. However, the movement in the index from any base point can be revealing.

Commodities started 2009 under continued pressure through the first quarter, before reversing and climbing modestly throughout the year. This was mainly reflective of movements in energy prices. Current prices are still below the 2007 pre-recession levels (Figure 32).



Figure 32 - Reuters/CRB Futures Index

The U.S. Department of Agriculture (USDA) publishes monthly indices of prices received by farmers. The index of crop prices received was 160 in January 2009 with several mid-year movements between 146 and 161, before eventually settling in December at 152 (Figure 33). Livestock prices began the year fairly flat at 114 before rising to 118 in December. The cotton price index continued its decline into 2009 to a low of 76 and holding in a tight range until spiking in September to finish the year at 96.



Figure 33 - Ag Prices Received Index

USDA also publishes monthly indices of prices paid by farmers for various production inputs. Of particular interest are the indices for energy related inputs such as diesel and nitrogen fertilizer. The index of diesel prices paid fell to a near-time low of 192 in March 2009 and has since rebounded back to 253, which is near the January 2007 level (Figure 34). Starting 2009 at 333, nitrogen fertilizer had a modest increase in the first quarter before it continued declining to 241 at the end of the year, 46% below 2008 highs. These indices imply that producers could face fuel and nitrogen fertilizer costs in 2010 similar to the 2007 crop, barring no major disruptions.





U.S. Net Farm Income

The latest USDA estimates place U.S. net farm income at \$57.0 billion for 2009 (Figure 35), a decline of more than \$30 billion from 2008. The forecast is \$6.5 billion below the 10-year average of \$63.6 billion.



Figure 35 - U.S. Net Farm Income

After being whipsawed in 2008 by highly volatile domestic and international macroeconomic forces, the U.S. farm sector demonstrated it is intertwined with the world economy more than ever. In 2009, crop prices continued to decline. With economic conditions deteriorating worldwide, demand for exports fell off sharply. This left few options for farmers, forcing them to accept lower than the prices anticipated when the planting decision was made. Farm cash receipts declined by 13% in calendar 2009, with both crops and livestock experiencing double digit drops. Large decreases are estimated for the food grains, feed crops, fruits, tree nuts and cotton with slight increases for oil crops, vegetables and melons.

USDA estimates that 2009 government payments will increase to a total \$12.5 billion, a 2% increase from 2008 but 19% below the 5-year average. Direct payments and counter-cyclical payments are expected to total \$6.3 billion.

U.S. Farm and Trade Policy

2008 Farm Bill

The Food, Conservation, and Energy Act of 2008, hereafter referred to as the 2008 Farm Bill, legislates the provisions of the cotton farm program for the 2008 through 2012 crops. The bill became law in June 2008, but as of early 2010, implementing rules for certain provisions were still being developed by the Department of Agriculture.

The new farm law maintains the basic structure of previous farm programs by continuing the marketing loan, direct payments, and counter-cyclical payments. Certain marketing loan provisions for upland cotton were modified to reflect changes advocated by the cotton industry. Much-needed support was also introduced for the U.S. textile industry. The 2008 Farm Bill establishes a permanent disaster program designed to partially cover weather-related losses at the whole-farm level. Another new provision is an optional revenue-based counter-cyclical program that producers can choose as an alternative to the target price counter-cyclical program. The new bill also makes significant changes to payment limits and program eligibility requirements.

Base Loan Rates, Marketing Loans and LDP's

The 2008 Farm Bill maintains the upland cotton base loan rate at 52.00 cents/lb (See Table 3 on page 26). The duration of the loan is maintained at nine months from the first day of the month following entry.

The following provisions of the upland cotton marketing loan are effective for the 2008-12 crops:

- Eliminate warehouse location differentials.
- Develop loan schedule premiums and discounts on a 3-year moving average of

spot market information, weighted by region's share of U.S. production.

- Eliminate the split in the micronaire schedule between staple lengths 32 and 33.
- For qualities of cotton in which the leaf grade is more than one grade above the color factor, the premium/discount will be set equal to the premium/discount of the quality with the same color factor but with a leaf grade that is one better than the color factor.
- In the calculation of the Adjusted World Price (AWP), which is based on the 5 lowest Far East quotes,
 - Incorporates a seamless transition between marketing years such that current-crop quotes are used through the end of the marketing year, if available.
 - Adjusts to U.S. location by using the average costs to market, including average transportation costs.
 - Institutes the Fine Count Adjustment, which can lower the AWP for qualities better than 31-3-35 based on differences in premiums in the U.S. and international markets.

Storage credits to upland cotton loan repayment values are maintained for the 2008 through 2012 marketing years, but reduced by 10.0% from the 2006 maximum rate for the 2008 through 2011 marketing years and reduced by 20.0% from the 2006 maximum rate beginning with the 2012 marketing year. Storage is credited when AWP is less than the total of the loan rate plus interest plus storage.

Marketing loan gains (MLG) will continue to be payable as the difference between the base loan rate and AWP when the former exceeds the latter. For eligible producers that agree to forego placing upland cotton in CCC loan, the marketing loan gain is available as a loan deficiency payment (LDP).

The loan rate for ELS cotton is maintained at 79.77 cents/lb.

Base Acres and Payment Yields

In general, the upland cotton base acres and payment yields established by the 2002 Farm Bill that were effective September 30, 2007, will constitute the base acres and payment yields for the 2008-12 crops. However, the new law requires adjustments to base acres under various circumstances. These include, but are not limited to, adjustments based on the likelihood that land returns to agricultural use, and changes in the status of a Conservation Reserve Program (CRP) contract.

For 2009, USDA's preliminary enrollment reports indicate that 17.60 million acres of upland cotton base enrolled in the Direct and Counter-cyclical Program (DCP).

Direct Payments

For upland cotton, the direct payment is maintained at 6.67 cents/lb (See Table 3 on page 26). There is no direct payment available for ELS cotton. For the 2009-11 crops, direct payments are paid on 83.3% of an eligible producer's base acres multiplied by payment yield. In 2012, the percentage of base acres receiving direct payments is increased to 85%. Direct payments remain decoupled from current production decisions.

Target Price

For upland cotton, the 2008 Farm Bill authorizes a target price of 71.25 cents/lb for the life of the legislation (See Table 3 on page 26). The current farm bill makes no provision for a target price for ELS cotton. Target prices for wheat, soybeans and some minor feed grains are increased for the 2010-12 crops. Target prices are used in the calculation of counter-cyclical payments (CCP). The CCP rate is determined as: (target price) minus (direct payment) minus (greater of 12-month marketing year average price or loan rate). When the sum of the direct payment and the marketing year average price exceeds the target price, the corresponding countercyclical payment is zero. Counter-cyclical payments are decoupled from production, as are the direct payments. Counter-cyclical payments will continue to be made on 85% of base acres and payment yields.

Average Crop Revenue Election Program

As an alternative to the price-based countercyclical program, producers have the option to elect a revenue-based program beginning with the 2009 crop.

In return for accepting a 20% reduction in direct payments and 30% reduction in loan rate, producers may make an irrevocable election to enroll all covered commodities and peanuts in a state-level revenue countercyclical program, known as the Average Crop Revenue Election, or ACRE, program. For producers with qualifying losses, the program makes payments on a portion of planted acres based on the difference between 90% of the product of a state average yield factor times the national seasonal average price for the previous 2 vears for the commodity and the actual state revenue for the commodity. Producers who choose not to participate in the ACRE program beginning in 2009 have the ability to choose the program in each subsequent year. However, once an affirmative ACRE decision is made, the producer may not return the farm to the target price countercyclical program.

Initial enrollment data show just 966 farms with 30 thousand acres of upland cotton base chose the ACRE program. Oklahoma accounts for 732 of the ACRE farms, with another 184 farms in Texas.

Producer Agreement Requirements for Payments

For a producer to be eligible for payments, they must:

- 1. Comply with conservation requirements;
- 2. Comply with planting flexibility requirements;
- 3. Maintain land in an agricultural or conserving use;
- 4. Submit annual acreage reports.

Payment Limitations and Eligibility Requirements

Taking effect with the 2009 crop, the 2008 Farm Bill includes a number of changes in both limits and eligibility.

The farm bill eliminates the limit on marketing loan gains and LDP's, which was \$75,000 prior to 2009. The limits on direct payments and counter-cyclical payments are \$40,000 and \$65,000, respectively. For producers with some or all of their farms enrolled in the ACRE program, the limit on direct payments is reduced from \$40,000 by an amount equal to the 20% reduction in direct payments. The limit on revenue-based ACRE payments is increased from \$65,000 by the amount of the reduction in the DP limit.

The 2008 Farm Bill eliminates the 3-entity rule, and direct attribution is applied to all commodity program payments. The rules for spouse eligibility were enhanced such that an actively engaged spouse is automatically credited with making a significant contribution of labor and management.

While the farm bill statute included no changes in the determination of those "actively engaged in farming," USDA, through the rule-making process, instituted significant new restrictions that all members of a farming entity make a regular, identifiable, documentable, separate and distinct contribution of active personal labor or active personal management.

Income means tests for commodity and conservation payment eligibility are more restrictive under the 2008 Farm Bill. If an entity or individual earns an average of more than \$500,000 in adjusted non-farm income during the 3 years prior to the year proceeding the applicable year, the individual or entity is ineligible for any commodity program payments for the year (example: for 2009 crop, use average of 2005, 2006 and 2007).

If an individual or entity earns an average of more than \$750,000 in adjusted farm income during the 3 years prior to year preceding the applicable year, the individual or entity is ineligible for direct payments for the year. The definition of farm income is also expanded to include other sources of income derived from a farming or agricultural enterprise.

For conservation payments, if during 3 years prior to the year preceding the applicable year, an individual or entity earned an average of more than \$1.0 million in adjusted non-farm income or more than \$1.0 million in adjusted gross income (if less than $66^{2}/_{3}$'s is from farming, ranching or forestry), that individual or entity is ineligible for conservation program payments for the year (but does not apply to easement programs).

In addition, USDA has placed unnecessary payment limits on the Conservation Stewardship Program (CSP). The 2008 Farm Law clearly establishes a five-year payment limit of \$200,000 per "person or legal entity" for "all contracts" entered into during any "five-year period." Without basis, USDA has instituted an overly-restrictive limit of \$40,000 per year on CSP participants and a five-year limit of \$200,000 per contract, regardless of the number of participants associated with the contract.

Cotton Import Provisions

When the average U.S. quote in the international market exceeds the prevailing world market price for 4 consecutive weeks, a Special Import Quota equal to 1 week's mill use is triggered. Cotton imported under this quota must be purchased within 3 months and enter the U.S. within 6 months. Imports under this quota cannot exceed 10 week's of mill use in a marketing year.

Authority for Global Import Quotas is also extended by the current farm law. Whenever the base quality spot price for a month exceeds 130% of the average for the previous 36 months, a limited global import quota equal to 3 weeks of mill use must be opened for a 3-month period. Limited global quota periods cannot overlap, nor can a limited global quota be established if a special import quota is already in effect.

ELS Cotton Competitiveness Provisions

Competitiveness payments for eligible domestic users and exporters of American Pima cotton are continued for the 2008-12 crops. The payment rate reflects the difference between the American Pima quote in the Far Eastern market (APFE) and the lowest foreign quote in the Far East (LFQ), adjusted for quality. If the APFE quote exceeds the LFQ for 4 consecutive weeks and the LFQ is less than 134% of the base loan rate, then the payment rate equals the difference between the APFE and the LFQ in the fourth week of the 4-week period.

Economic Assistance to Users of Upland Cotton

Beginning August 1, 2008 through July 31, 2012, the Secretary is required to make a payment to domestic users of 4 cents/lb for all upland cotton consumed by U.S. textile mills. Beginning August 1, 2012, the rate is adjusted to 3 cents/lb.

Payments must be used for purposes specified in the 2008 Farm Bill and include acquisition, construction, installation, modernization, development, conversion, or expansion of land, plant buildings, equipment, facilities, or machinery; such capital expenditures must be directly attributable and certified by the user for the purpose of manufacturing eligible upland cotton into eligible cotton products in the United States.

Export Programs

Title III of the 2008 Farm Bill makes a number of changes to trade promotion and facilitation programs important to the U.S. cotton industry. Specifically, the law repeals the Intermediate Export Credit Guarantee Program (GSM-103) and the Supplier Credit Guarantee Program. The Export Credit Guarantee Program (GSM-102) is authorized with \$4 billion in credit guarantees and \$40 million in budget authority.

The Market Access Program (MAP) and the Foreign Market Development (FMD) Program are funded at annual amounts of \$200 million and \$34.5 million, respectively.

	Loan Rate		Target Price		Direct Payment
	'08-09	'10-12	'08-09	'10-12	'08-12
Upland Cotton (lb)	0.5200	0.5200	0.7125	0.7125	0.0667
ELS Cotton (lb)	0.7977	0.7977	NA	NA	NA
Rice (cwt)	6.50	6.50	10.50	10.50	2.35
Wheat (bu)	2.75	2.94	3.92	4.17	0.52
Barley (bu)	1.85	1.95	2.24	2.63	0.24
Oats (bu)	1.33	1.39	1.44	1.79	0.024
Corn (bu)	1.95	1.95	2.63	2.63	0.28
Sorghum (bu)	1.95	1.95	2.57	2.63	0.35
Soybeans (bu)	5.00	5.00	5.80	6.00	0.44
Peanuts (ton)	355.00	355.00	495.00	495.00	36.00
Other Oilseeds (cwt)	9.30	10.09	10.10	12.68	0.80

Table 3 - Support Rates in the 2008 Farm Bill

ACRE Program Provisions		
ACRE State Program Guarantee	90% * (5-yr Olympic rolling avg state yield per planted acre) * (2-yr rolling avg of national average market price); Starting in 2010, the ACRE guarantee shall not increase or decrease by more than 10% from the preceding marketing year. Provisions to allow separate guarantees for irrigated and non-irrigated land under certain conditions.	
Actual State Revenue	Actual state yield per planted acre * higher of national avg. market price and 70% of marketing loan rate.	
Actual Farm Revenue	Actual farm yield * higher of national MYA price and 70% of marketing loan rate.	
Farm ACRE Benchmark Revenue	(5-yr Olympic rolling avg farm yield) * (2-yr rolling avg national market price) + per-acre crop insurance premium	
Payment Rate per Acre	Lesser of (ACRE State Program Guarantee – Actual State Revenue) or 25% of ACRE State Program Guarantee	
Individual Farmer Payments	Payment Rate * Payment Acres * (5-yr Olympic rolling avg farm yield / 5-yr Olympic rolling avg state yield)	

World Trade Organization

Trade issues continue to command the attention of the U.S. cotton industry. In the World Trade Organization (WTO), there was little progress in the ongoing Doha trade negotiations, but the trade dispute with Brazil moved through the arbitration phase.

Doha Trade Negotiations

The U.S. cotton industry has consistently delivered the message that a Doha agreement must balance gains in market access with the reductions imposed on domestic support. Unfortunately, the current text, which was originally tabled by WTO Director General Pascal Lamy in July 2008, does not contain the necessary balance between domestic support and market access. The NCC continues to convey this message to U.S. negotiators and have been encouraged that U.S. officials are carrying that message to other countries. The WTO's negotiating schedule for 2010 remains unclear.

Brazil Trade Dispute

In August 2009, a WTO Arbitration Panel ruled that Brazil could seek retaliation for the U.S.'s failure to comply with an earlier panel regarding the export credit guarantee programs and certain provisions of the upland cotton farm program.

The Panel developed distinct awards that are ultimately summed together for the purpose of determining whether or not Brazil is allowed to seek retaliation beyond trade in goods. The Panel adopted a formula approach to retaliation authority applicable to the export credit guarantee program (also known as the GSM program) and stated that the formula would authorize \$147.4 million in retaliation authority for the GSM program based on 2006 data. The Panel also authorized \$147.3 million (a fixed amount) in retaliation authority for cotton -- far less than Brazil had requested. The Panel also adopted a formula approach concerning socalled "cross-retaliation" that requires the parties to sum the two awards outlined above and determine whether that sum exceeds a "trigger" level which would authorize Brazil to cross-retaliate against intellectual property rights of U.S. companies.

In November, Brazil published a list of 222 items being considered for additional duties. Brazil has previously implied that it will be entitled to over \$650 million in retaliation for the export credit guarantee program, bringing total countermeasures of more than \$800 million. However, no decision on retaliation is expected before February.

The NCC has consistently argued that the Panel's ruling does not appreciate the market and policy changes for U.S. cotton since 2005. U.S. cotton production in 2009 was more than 45% below the 2005 level. The U.S. share of world cotton production has declined to 12% of total world cotton production – an 8 percentage point decline since 2005 and the lowest since 1983.

Textile Trade Issues

Textile trade policy continues to have a substantial impact on the U.S. textile industry, both in terms of opportunities to export textile and the pressures brought to bear by imported textiles and apparel. 2009 brought relatively few changes for U.S. textile trade policy. Agreements have been negotiated with Panama, Colombia and South Korea, but those agreements are currently stalled in the approval process..

<u>China</u>

Following their entry into the WTO in late 2001, China has dramatically expanded their role in world textile trade. China has made full use of WTO provisions to increase their textile imports to the U.S.

A China-specific safeguard allowed the U.S. and other WTO member countries that believed imports of Chinese-origin textile and apparel products were, due to market disruption, threatening to impede the orderly development of trade in these products to request consultations with China with a view to easing or avoiding such market disruption. Countries had authority to impose safeguards through the end of 2008. In addition, the U.S. and China signed a broad bi-lateral agreement on Chinese textile imports into the U.S. The agreement went into effect on January 1, 2006 and ended on December 31, 2008. In general, U.S. imports of Chinese goods covered by the agreement were allowed to grow by 10 to 12.5% in 2006, 12.5% in 2007, and 15 to 16% in 2008, depending on the item. Furthermore, in 2006, the agreement imposed tighter limits on U.S. imports from China's "core" apparel products. The "core" apparel products are cotton knit shirts, MMF knit shirts, woven shirts, cotton trousers, MMF trousers, brassieres and underwear.

The loss of the import restrictions on China came at a time when the U.S. was experiencing a large downturn in the retail market due to the recession. Therefore, the impact of the expiration of the agreement on the U.S. was not as apparent as it would have been if quotas were removed at a time when the retail market wasn't experiencing such a downturn, since this decline caused a decrease in total U.S. textile imports. Even with the decline in the U.S. retail market and subsequent decline in U.S. textile and apparel imports from China in 2008, China continues to be the largest single importer of textile and apparel products into the U.S. with a total market share of 45% based on data through November 2009.

China's market share for all U.S. textile and apparel imports increased even more after the removal of the quotas at the expense of many of the countries with which we have

free trade agreements that encourage the use of U.S. cotton. Looking at U.S. market share for agreement versus non-agreement categories for calendar years 2008 and 2009, China's market share of U.S. imports for the categories that were covered by the agreement for data through November 2008 was just 14% while Western Hemisphere countries (such as the countries of NAFTA, CAFTA, and the Andean) totaled 47% of the U.S. market share (Figure 36). However, China's market share for those same categories surged to 23% for data through November 2009 while Western Hemisphere countries dropped to 40% of the U.S. market share.



Figure 36 - Market Share of U.S. Textile Imports (U.S.-China Agreement Categories)

While gaining market share in the agreement categories, China also held steady with their market share for non-agreement categories (Figure 37). China's market share for those textile and apparel products that were not covered by the agreement was 55% for data through November 2008 as well as for data through November 2009.



Figure 37 - Market Share of U.S. Textile Imports (Non-Agreement Categories)

<u>AGOA</u>

The African Growth and Opportunity Act (AGOA) provides preferential access of textile and apparel products to the U.S. market for qualifying countries in Africa. In 2004, legislation extended AGOA from its planned expiration date of 2008 to 2015. Other key provisions of the legislation included the extension of authority for the use of third country fabrics from September 2004 to September 2007. Rules-of-origin provisions were amended to allow non-AGOA produced collars and cuffs for apparel import categories. The "folklore" provision was expanded to allow ethnic fabrics that are made on machines to qualify for AGOA duty-free treatment. The legislation also included provisions for the development of sustainable infrastructure and technical assistance, including the assignment of 20 people to sub-Saharan Africa to assist and advise them on sanitary and phyto-sanitary standards to meet requirements for the U.S. market. In 2006, provisions of AGOA were extended to provide for use of non-U.S., non-AGOA components through September 2008. However, beginning October 2008, 50% of the fabric used in apparel qualifying for preferential access must be manufactured in AGOA countries. The legislation also established tax credits for companies with

facilities in AGOA countries or that conduct business in AGOA countries.

The AGOA legislation requires an annual determination to determine which countries are eligible to receive benefits under the trade act. Countries must make continued progress toward a market-based economy, rule of law, free trade, and economic policies that will reduce poverty, and protect workers' rights. There are now 38 countries that are eligible for economic and trade benefits under AGOA. Of those 38 Sub-Saharan countries, 25 of them are eligible to receive AGOA's apparel benefits. Seventeen of those countries also qualify for AGOA's provisions for handloomed and handmade articles. Four countries qualify for AGOA's ethnic printed fabric benefits.

CAFTA-DR

Although first signed by President Bush in August 2005, the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR) has been implemented in stages as participating countries meet their internal approvals. The CAFTA-DR entered into force for El Salvador on March 1, 2006, for Honduras and Nicaragua on April 1, 2006, for Guatemala on July 1, 2006, for the Dominican Republic on March 1, 2007 and for Costa Rica on January 1, 2009.

According to the provisions of the CAFTA-DR agreement, textiles and apparel are dutyfree and quota-free immediately if they meet the agreement's yarn-forward rule of origin. This means that only apparel using yarn and fabric from the U.S., Central America and the Dominican Republic qualifies for dutyfree benefits.

The textile provisions also include a number of avenues for 3rd-country participation, including 'cumulation', Tariff Preference Levels (TPLs) which authorize the use of a specified quantity of 3rd country

components, a fabric-forward rule of origin for certain products and allowances for 'single transformation' for a number of others. 'Single transformation' means only one manufacturing step has to be taken in a country in order for products made from components sourced from anywhere to qualify for benefits.

Cumulation is a concept that brings countries that are not signatories to an agreement into the agreement provided they are signatories to another trade agreement. The signatories of CAFTA-DR agreed to cumulation with Mexico and Canada for woven apparel. This allows a limited amount of inputs from Mexico and Canada to be used in Central American/Dominican apparel that will still qualify for duty-free benefits in the U.S. Cumulation under CAFTA-DR is subject to an annual cap of 100 million SME. This cap can grow to 200 million SME, but the growth is tied to an increase in CAFTA-DR trade. Under the overall cap of 100 million SME, there is a 1 million SME cap on wool, 20 million SME cap on blue denim, and 45 million SME cap on cotton and man-made bottom weights. Mexico and Canada must provide reciprocal benefits to U.S. and Central American textile and apparel exports. Canada and Mexico must also agree to strengthen Customs enforcement measures. The CAFTA-DR Cumulation provision became effective on August 15, 2008. The TPLs for CAFTA-DR cumulation for the period of January 1, 2009 through December 31, 2009 was 100,000,000 SME. During that time, imports applied to this preference level equaled 1,775,851 SME, implying a 1.8% fill rate. The TPLs for CAFTA-DR cumulation for the period of January 1, 2010 through December 31, 2010 is 100,000,000 SME.

CAFTA-DR provides Nicaragua with a TPL of 100 million SME which phases out over 10 years. CAFTA-DR does not contain

TPLs for El Salvador, Honduras or Guatemala. The TPL for Nicaragua was 88,618,262 SME for the 2009 preference period. During this period, 87,794,027 SME of imports were applied to this TPL, implying a 99.1% fill rate. This is up slightly from the 2008 fill rate of 96.7%.

CAFTA-DR provides Costa Rica with TPLs for certain apparel of wool fabric, tailored wool apparel, and certain women's swimwear. Combined, these TPLs were 1,100,000 SME for the 2009 preference period.

CAFTA-DR contains a special textile safeguard which allows the U.S. to impose tariffs on certain goods when injury occurs due to import surges. A safeguard can not last more than 3 years for a specific good. The Committee for the Implementation of Textile Agreements (CITA) applied a textile safeguard measure on imports of cotton socks from Honduras in 2008.

The agreement also contains a revised short supply process that includes tighter timelines than in earlier short supply processes, allows items to be deemed in partial short supply, and provides for items to be added to and removed from the short supply list.

An amendment regarding pocketing material became effective in August 2008. Under this CAFTA-DR amendment, material for pockets going into apparel made in the CAFTA region have to be made in the U.S. or CAFTA countries for the product to enter the U.S. duty free.

<u>Andean Countries</u>

The U.S. – Peru free trade agreement entered into force on February 1, 2009. Under the U.S. – Peruvian agreement, 80% of U.S. consumer and industrial product exports and two-thirds of U.S. agricultural exports to Peru were duty-free immediately. The textile and apparel provisions are based on the yarn-forward rule of origin. There are no provisions for TPLs or exceptions to the requirement that qualifying products contain components manufactured in the U.S. or Peru. As in NAFTA, a list of components not manufactured in either country has been developed and only those products may be sourced from a third country.

On November 22, 2006, the U.S. – Colombia Trade Promotion Agreement was signed. On June 28, 2007, the United States and Colombia signed a Protocol of Amendment revising the Agreement to reflect the bipartisan consensus on trade of May 10, 2007. As of mid-January 2010, the U.S. – Colombia Trade Promotion Agreement was still pending Congressional approval.

Under the U.S. – Colombia agreement, over 80% of U.S. exports of consumer and industrial products to Colombia will be duty-free immediately, and an additional 7% will be duty free within five years. All remaining tariffs will be eliminated within ten years. The textile and apparel provisions are generally based on the varn-forward rule of origin. Exceptions to the rules of origin will be handled through an expedited "short supply" determination process after entry into force, or through a similar process under the Andean Trade Preference Act before entry into force. The U.S. and Colombia agreed on 20 "short supply" items as part of the agreement. The agreement does not make use of TPLs. A "de minimis" provision will allow limited amounts of specified third-country content to go into U.S. and Colombian apparel. Also, a special textile safeguard will provide for temporary tariff relief if imports under the agreement prove to be damaging to domestic producers.

Colombia, Peru, Ecuador, and Bolivia received duty-free benefits under the

Andean Trade Preference Act (ATPA). As part of the Trade Act of 2002, Congress renewed and enhanced the trade preferences for all four countries under the Andean Trade Promotion and Drug Eradication Act (ATPDEA), which was scheduled to expire on December 31, 2006. Since it was not possible for Congress to approve legislation implementing the FTAs with Peru and Colombia before the ATPDEA expired, U.S. textile and apparel groups have continually urged Congress to act to ensure that preferential access for products produced in the Andean region containing U.S. cotton, varn, and fabric was not interrupted. The most recent extension was enacted on December 20, 2009 and extends until December 31, 2010.

<u>Haiti</u>

In December 2006, legislation – the Haitian Hemispheric Opportunity Through Partnership for Encouragement Act (HOPE) - was enacted that would provide expanded duty-free, quota-free access to certain apparel products assembled in Haiti. To qualify, Haitian products are required to have 50% of the value of the finished product be provided by the U.S., Haiti, any U.S. Free Trade Agreement partner or any country in AGOA, Andean and CAFTA regions.

U.S. textile industry organizations expressed strong objections to this legislation due to the very loose rule-of-origin. These organizations argued that the rule-of-origin is unenforceable according to customs and would result in transshipment of Chinese products displacing U.S. exports and disrupting mutually beneficial trade with neighboring CAFTA countries.

HOPE provided that the annual quantity of goods eligible for duty-free benefits will be recalculated for each subsequent 12-month period. HOPE also provided that the annual limit for qualifying apparel imported from Haiti under this provision for the 12-month period beginning on December 20, 2007 will not exceed 1.3% of the total SME of all apparel articles imported into the U.S. from Haiti in the most recent 12-month period for which data are available. The 12-month limit on duty-free benefits for the one-year period beginning on December 20, 2008 and extending through December 19, 2009 was 305,093,845 SME. During that time period, 15,910,663 SME were attributed to the limit, implying a fill rate of 5.2%.

The 2008 Farm Bill included amendments to rules enacted in 2006 by the HOPE Act. These amendments are referred to as the Haitian Hemispheric Opportunity through Partnership Encouragement Act of 2008 (HOPE II). HOPE II extends tariff preferences for 10 years and relaxes rules of origin for textile and apparel products from Haiti. It creates a benefit for apparel wholly assembled or knit-to-shape in Haiti that meets a "3 for 1" earned import allowance. The amendment requires the Secretary of Commerce to establish a program to provide earned import allowance certificates to any producer or entity controlling production of apparel in Haiti, such that apparel wholly assembled or knit-to-shape in Haiti from any combination of fabrics, fabric components, components knit-to-shape, or yarns, regardless of their source, and imported directly from Haiti or the Dominican Republic may enter the United States dutyfree, pursuant to the satisfaction of the terms governing issuance of the earned import allowance certificate by the producer or entity controlling production of apparel in Haiti.

<u>Panama</u>

On December 19, 2006, the U.S. and Panama announced the completion of negotiations on a free trade agreement with the understanding that it is subject to further discussions regarding labor. A conceptual agreement between the Democratic Leadership of the U.S. House of Representatives and the Bush Administration regarding labor, environmental and intellectual property provisions of the pending FTAs including the FTA with Panama was reached in May 2007. At the end of June 2007, the U.S. Trade Representative announced that it had reached agreements with each of the pending FTA countries to incorporate these changes into the legal text of the FTAs. As of January 2010, the U.S. – Panama Free Trade Agreement is still pending Congressional approval.

<u>Korea</u>

On April 1, 2007, the final day for Congressional notification under Trade Promotion Authority (TPA), the United States concluded a Free Trade Agreement with South Korea. This agreement was signed on June 30, 2007, the last day it could be signed and still be considered under TPA which expired on the same day. As of January 2010, the agreement (referred to as the KORUS FTA) is still pending approval by Congress.

The KORUS FTA should have the largest economic impact on the U.S. of any free trade agreement since NAFTA. Korea's agricultural sector is heavily protected from imports and will open significantly under the agreement. However, rice was excluded from coverage and high beef tariffs will phase out over a 15-year period. The U.S. Trade Representative's office reported that more than \$1 billion worth of U.S. farm exports to Korea will become duty-free immediately. Trade in cotton fiber is slated to be liberalized quickly under the agreement. The agreement maintained the use of a "yarn-forward" rule of origin for textiles, no tariff preference levels, no cumulation, and no immediate concessions for the Kaesong Industrial Zones. The agreement also includes a textile safeguard and strong customs enforcement language.

The KORUS FTA also allows for immediate duty-free access for Korea for most textile and apparel lines (87% of all tariff lines and over 50% of 2006 trade).

Looking Ahead

Trade Promotion Authority (TPA) expired on June 30, 2007. Under TPA trade agreements are subject to an up-or-down vote, but not amendment, in Congress. When TPA expired, the Administration effectively lost its authority to enter into new FTA negotiations. President Obama has said he would seek an extension of TPA. In mid-December 2009, the USTR announced that the U.S. will negotiate a trade agreement with the Trans-Pacific Partnership (TPP). The initial TPP negotiation partners include Australia, Brunei Darussalam, Chile, New Zealand, Peru, Singapore, and Vietnam. The first round of negotiations for the free trade agreement has already been announced by the current Trans-Pacific Partnership members for March 2010.

U.S. Supply

Planted Acreage

U.S. farmers planted 9.0 million acres of upland cotton in 2009, a decline of 3% from the previous year (Figure 38). The decline in upland acres was less than early-season expectations as NCC's 2009 acreage survey called for a decline of 14% while USDA's March '09 *Prospective Plantings* put the drop in upland acres at 7%. The drop in acreage comes on the heels of declines in both 2007 and 2008. To a large extent, the loss of acres comes in response to strong competition from grain and soybeans and high production costs reducing the attractiveness of cotton.



Figure 38 - U.S. Upland Planted Area

Upland area in the Southeast fell by less than 2% from the 2008 level, totaling 1.9 million acres for the 6-state region (Figure 39). Across the region, results were mixed with Georgia (+6%), Florida (+22%), and Virginia (+5%) increasing cotton area. In these states, the increase in cotton area largely came at the expense of peanuts. Meanwhile, Alabama and the Carolinas saw declines ranging between 12 and 15%.



Figure 39 - Southeast Upland Planted Area

In 2009, plantings in the Mid-South fell by 13%, which follows a 35% decline in 2007. Relative to the most recent acreage peak of 4.2 million acres in 2006, upland cotton acreage across the 5-state region was down by more than 60%, and the 2009 acreage falls short of the 1983 level, which was sharply reduced due to the idling requirements of the Payment-in-Kind program (Figure 40). Only Tennessee (+5%)observed an increase in cotton acres relative to 2008. The remaining 4 states experienced double-digit percentage declines, with the smallest decline of 11% in Missouri and the largest decline of 23% in Louisiana. Acreage losses in Arkansas and Mississippi were 16% for 2009. Across the region, growers shifted land away from cotton in favor of soybeans. Corn also gained acres in Louisiana and Mississippi.



Figure 40 - Mid-South Upland Planted Area

The Southwest was the one production region to buck the trend of declining acres by increasing upland area to just over 5.2 million acres (Figure 41). The modest area expansion of just less than 1% was dampened by Texas farmers holding cotton area stable at 5.0 million acres. Kansas and Oklahoma increased acres by 9 and 21%, respectively.



Figure 41 - Southwest Upland Planted Area

In the West, the recent trend of declining cotton area continued as growers planted 247 thousand acres, down 16% from 2008 (Figure 42). The 2009 total was the lowest upland plantings in the West region in recent history. Declines in California (-41%) and New Mexico (-20%) were partially offset by increased acres in Arizona (+7%). In California, water availability and competition from a variety of alternative crops contributed to the sharp contraction in acres.



Figure 42 - West Upland Planted Area

ELS area faced some of the same pressures and constraints as upland acres in the West. In 2009, competition from specialty crops and reduced water contributed to a 19% reduction in ELS plantings (Figure 43). In addition, weak demand in early 2009 stemming from the contraction in the general economy further dampened the price expectations of growers. California, with 119 thousand acres of ELS cotton, accounted for the vast majority of U.S. area. California's 23% decline more than offset gains in Arizona, New Mexico, and Texas.



Figure 43 - U.S. ELS Planted Area
Harvested Acreage

For many parts of the Cotton Belt, the 2009 growing season proved to be a very challenging year. A cool, wet spring delayed planting in the Mid-South and the Southeast. However, despite the late start, the crop progressed well through the summer and was showing excellent yield potential as of late August. However, September and October brought record levels of rains to the Mid-South, and the Southeast to a lesser extent. Excess moisture and delayed harvest caused losses in both quantity and quality. In some cases, growers were unable to harvest. The Southwest region also experienced weather problems during the 2009 growing season, with the most notable event being the severe drought that plagued south Texas. Dating back to the fall of 2008, south Texas began the year under drought conditions. In many cases, the dry weather led to a complete crop failure, resulting in higher abandonment. The Texas High Plains also experienced periodic weather difficulties that led to un-harvested cotton. However, while severe in localized area, widespread failures in the Plains were not as prevalent as 2008. Across all cotton acres. abandonment is estimated at 16%, down from 20% in 2008 (Figure 44). By comparison, the average abandonment in the prior 5 years was 9%.



Figure 44 - U.S. Cotton Abandonment

Yields

The effects of the various weather problems were evident in the USDA 2009 crop estimates. The U.S. average cotton yield was estimated at 774 pounds, more than 100 pounds below the 2007 record yield of 879 pounds (Figure 45). The 2009 yield was the lowest since 2003, estimated to be 763 pounds, 66 pounds below the 5-year average. In contrast to upland cotton, ELS yields averaged 1,353 pounds, surpassing the 5-year average by 85 pounds.



Figure 45 - U.S. Cotton Yield

In the Southeast, the effects of the wet harvest-time weather were most evident in Alabama and Florida. With average yields of 691 pounds and 646 pounds, respectively, Alabama and Florida productivity failed to match 2008 (Figure 46). For the region, strong yields in Georgia, the Carolinas, and Virginia raised the regional average to a record 869 pounds, 97 pounds above the 5year average. Georgia, North Carolina and Virginia also recorded all-time high yields.

Pounds	per Harveste	ed Acre	
	2008	2009	5-Year Average
Alabama	787	691	668
Florida	916	646	745
Georgia	835	882	792
North Carolina	847	986	813
South Carolina	881	842	736
Virginia	908	990	867
SOUTHEAST	839	869	772

Figure 46 - Southeast Upland Yields

Producers in the Mid-South were not as fortunate as weather problems reduced the average yield to 805 pounds, down 140 pounds from the 5-year average (Figure 47). Only, Tennessee, with an average yield of 857 pounds, surpassed their 5-year average. The remaining states fell short of their 5year average, with the shortfalls in Arkansas, Louisiana and Mississippi ranging between 150 and 250 pounds. Yields in Arkansas and Mississippi were the lowest since 2008. For Louisiana, 2009 was the second consecutive year of below-normal yields.

			5-Year
	2008	2009	Average
Arkansas	1,012	797	1,052
Louisiana	576	725	884
Mississippi	911	692	910
Missouri	1,106	960	997
Tennessee	909	857	836
MID-SOUTH	934	805	945

i igule 47 - Mild-South Opland Helds

In the Southwest, reduced yields in Texas was the driving force behind the regional average of 653 pounds, a 68 pound shortfall relative to the 5-year average (Figure 48). Both Kansas and Oklahoma exceeded their 5-year averages, with Kansas producers enjoying a record yield as they experienced a longer growing season.

	2008	2009	5-Year Average
Kansas	653	720	543
Oklahoma	811	792	718
Texas	657	644	724
SOUTHWEST	664	653	721

Figure 48 - Southwest Upland Yields

The average upland yield in the West is estimated at 1,462 pounds, 87 pounds above the 5-year average (Figure 49). California led the way with an average yield of 1,714 pounds, which surpasses the 2007 high by more than 100 pounds. Arizona's average yield of 1,467 pounds surpassed their 5-year average, while New Mexico's yield of 828 pounds was the lowest since 2002.

	2008	2009	5-Year Average
Arizona	1,462	1,467	1,412
California	1,506	1,714	1,414
New Mexico	974	828	960
WEST	1,420	1,462	1,375

Figure 49 - West Upland Yields

The national average ELS yield is estimated at 1,353 pounds, 85 pounds above the 5-year average (Figure 50). With the majority of ELS acres, California heavily influences the U.S. average. With an average yield of 1,448 pounds, California exceeded their 5year average by 115 pounds. Arizona and Texas enjoyed a rebound in yields, while New Mexico experienced the lowest yield since 1998.

			5-Year
	2008	2009	Average
Arizona	480	1,129	866
California	1,281	1,448	1,333
New Mexico	758	688	845
Texas	768	863	831
U.S.	1,226	1,353	1,267



Production

USDA's latest estimate places the 2009 U.S. cotton crop at 12.4 million bales (Figure 51), down 400 thousand bales from 2008. The smaller crop resulted from both lower area and yields and represented the smallest U.S. crop since 1989. Relative to 2008, declines in the Mid-South and West more than offset larger crops in the Southeast and Southwest. The upland crop is estimated at 12.0 million bales, and the ELS farmers harvested 390 thousand bales.



Figure 51 - U.S. Cotton Production

The Southeast produced 3.4 million bales of upland cotton in 2009, accounting for 28% of the total upland crop (Figure 52). This is 67 thousand bales above 2008 but still down 900 thousand bales from the 5-year average. Across the region, better yields more than offset the decline in cotton area.



Figure 52 - U.S. Upland Cotton Production 2009

For 2009, the Mid-South accounted for 22% of the total U.S. upland crop. With lower acreage and yields, upland production in the Mid-South fell to its lowest level since 1983. With the exception of Louisiana, all states in the region reported smaller crops than the previous year. Louisiana's 2009 crop was just marginally better than the hurricane-reduced production in 2008.

Production in the Southwest recovered by more than 500 thousand bales due to stable plantings and lower average abandonment across the region. Upland production of 5.3 million bales accounts for 44% of the U.S. crop.

The West produced 740 thousand bales of upland cotton in 2009, down 97 thousand bales from the region's 2008 crop. The region accounted for 6% of U.S. production. Production declines in California and New Mexico more than offset a larger Arizona crop. The 2009 ELS crop of 390 thousand bales was the smallest since 2000. At 350 thousand bales, the California ELS crop was 275 thousand bales smaller than the 5-year average (Figure 53). The state accounted for 90% of the total 2009 U.S. ELS crop. In 2009, production recovered in Arizona, New Mexico, and Texas.



Figure 53 - U.S. ELS Cotton Production 2009

Stock Levels

With total U.S. cotton demand exceeding production for the 2008 marketing year. cotton stocks fell sharply from the high levels of the previous two marketing years. The resulting carryout from the 2008 marketing year, and equivalent carry-in or beginning stocks for the 2009 marketing year, fell to 6.3 million bales (Figure 54). That represented a 3.7 million bale decline from the 10.0 million bales of stocks that were brought into the 2008 marketing year. The decline in stocks was entirely the result of upland stocks falling by 3.9 million bales. Due to extremely sluggish exports of ELS cotton, stocks of ELS doubled to 305 thousand bales during the 2008 marketing year.



Figure 54 - U.S. Cotton Beginning Stocks

Cotton placed under the CCC loan as of December 2009 was down slightly from 2008 and represents the lowest December total since 2003. As of December 31, 2009, outstanding CCC loan stocks were 5.8 million bales (Figure 55). The reduced loan placements can be attributed to the modestly smaller crop relative to 2008, delayed harvest and ginning in the Mid-South and Southeast, and stronger prices encouraging more cotton into the marketing channels.



Figure 55 - CCC Loan Stocks

Total Supply

Total supply for the 2009 marketing year is estimated to be 18.7 million bales, down from 22.9 million the previous year (Figure 56). Lower supplies reflect both reduced production and beginning stocks. In fact, the decline in stocks accounts for the majority of the supply reduction. To find a lower level of U.S. cotton supply, one has to go back to the 18.2 million bales for the 1998 marketing year.



Figure 56 - U.S. Cotton Supply

Upland Cotton Quality

As a whole, the quality of the 2009 crop is exceeding the recent 5-year averages for staple and strength. With 10.9 million running bales classed through January 14, the national average staple length (measured in 32nd of an inch) is 35.5, up from a 5-year average of 35.1 (Figure 57). The Southeast staple length of 35.0 is 0.4 better than their 5-year average, and if sustained for the remainder of their crop, the 2009 staple length would represent an all-time best for the region. In the Mid-South, the average staple length of 35.4 exceeds the 5-year average by 0.5 thirty-second's. The Southwest's average staple length of 35.6 exceeds their 5-year average by 0.3. The West reports the longest staple, with an average of 36.9.

	Sta	ole	Stren	gth
	<u>2009</u>	<u>5-Yr.</u>	<u>2009</u>	<u>5-Yr.</u>
Southeast	35.0	34.6	28.6	28.7
Mid-South	35.4	34.9	28.7	29.0
Southwest	35.6	35.3	29.5	29.1
West	36.9	36.5	31.4	30.8
U.S.	35.5	35.1	29.2	29.1

Figure 57 - 2009 Crop Staple and Strength

The strength of the 2009 upland crop, averaging 29.2 grams/tex, is slightly better than the 5-year average of 29.1. Results across the production regions are mixed with the Southeast and Mid-South falling just short of their 5-year averages, while the Southwest and West are both averaging above the 5-year numbers. For the West, an average of 31.4 grams/tex represents an alltime high.

In total for the Cotton Belt, 86.2% of the 2009 crop is grading 41 or better, which compares to a 5-year average of 85.8% (Figure 58). However, the results vary across the production regions. With 94.5% and 97.1%, respectively, color grades for the Southwest and West are exceeding their 5year averages. The effects of the extremely wet fall are evident in the Mid-South and the Southeast to a lesser extent. With 85.3% of the crop achieving a color grade of 41 or better, the Southeast is coming in just below their 5-year average. The larger effects are evident in the Mid-South as just 69.4% of the crop achieved a 41 color grade. This compares to a 5-year average of 82.3%.

	%SI	Mт	Micro	naire
	2009	<u>5-Yr.</u>	2009	<u>5-Yr.</u>
Southeast	85.3	86.8	45.0	45.5
Mid-South	69.4	82.3	43.3	45.5
Southwest	94.5	86.5	38.4	40.6
West	97.1	93.8	45.0	44.1
U.S.	86.2	85.8	41.8	43.5

Figure 58 - 2009 Crop Color and Mike

The average micronaire of the 2009 upland cotton crop is 41.8, down from the 5-year average of 43.5. The Southeast and West, with an average micronaire of 45, report the highest micronaire of the 4 regions. The Mid-South follows with an average of 43.3, and the Southwest reports the lowest average of 38.4.

Cotton Prices Upland Cotton Prices

After trading in a relatively narrow range between August 2005 and July 2007, upland cotton prices have been on a roller coaster ride with the spread between highs and lows being as great as 50 cents (Figure 59). Following the spike in prices in March 2008, both New York futures and the "A" Far East (FE) Index traded in the 70 to 80-cent range through August. By the fall of 2008, upheaval in the financial sector pushed prices sharply lower through December. Economic turmoil and concerns about consumer spending sharply reduced cotton mill use as textile inventories were reduced throughout the supply chain. From October 2008 through April 2009, nearby NY futures traded between 40 and 50 cents, while the "A" Index ranged between 50 and 60 cents.

By May 2009, upland cotton prices continued to take a positive tone with expectations that the worst of the economic downturn was in the past. Coupled with a weak dollar and projections of a tighter balance sheet for the upcoming 2009 marketing year, upland prices followed a generally steady increase for the remainder of calendar 2009. The year closed with futures at 75.6 cents and the "A" Index valued at 78.5 cents. During January 2010, prices have retreated modestly as speculators have liquidated some of their positions.



Figure 59 - Nearby NY and "A" (FE) Index

Thus far into the 2009 marketing year, spot 4134 values have averaged 61 cents/lb.; the average spot 4134 value for the 2008 crop cotton was about 48 cents/lb (Figure 60). During 2009, spot market prices generally followed the trend in futures. After starting calendar 2009 at 45 cents, prices closed the year at just over 65 cents. Over the course of 2009, the basis relative to nearby futures generally ranged between 2 and 6 cents, but had moved into the 6 to 8 cent range by December.



Figure 60 - Spot 4134 Price

ELS Prices

Extra long staple cotton prices began 2009 at \$1.25 per pound, after having improved through the latter half of 2008 (Figure 61). However, the effects of the recession became evident as export demand for ELS became almost nonexistent. Prices retreated for much of 2009, ultimately falling below \$1.00, but have since moved sharply higher as demand has improved. By mid-January 2010, ELS prices had returned to \$1.25.





Cottonseed Situation Cottonseed Supply

USDA estimates 2009 cottonseed production at 4.2 million tons, down from 4.3 million the previous year (Figure 62). The changes in cottonseed production mirror the movements in cotton lint production as average seed-to-lint ratios have remained relatively stable since 2005. For 2009, USDA's latest estimates indicated an average ratio of 1.4 pounds of seed per pound of lint.



Figure 62 - U.S. Cottonseed Production

For the 2009 crop, a regional breakdown of production shows that the Southwest produced 1.8 million tons or 44% of the total, the largest of any region (Figure 63). This was followed by the Southeast with estimated production of 1.0 million tons for a 25% share. The Mid-South produced 884 thousand tons, or 21% of total production, and the West accounted for 399 thousand tons, 10% of the total.



Figure 63 - U.S. Cottonseed Production 2009

Supplementing U.S. production, beginning stocks of 514 thousand tons brings total

cottonseed supply for the 2009 marketing year to 4.7 million tons (Figure 64). As was the case in 2008, no imports are expected for the 2009 marketing year. The 2009 supplies represent the lowest levels in recent history.



Figure 64 - U.S. Cottonseed Supply

Disappearance and Stock Levels

USDA's latest estimate places 2009 cottonseed disappearance at 4.3 million tons, down 160 thousand tons from the previous year (Figure 65). Crush is estimated at 1.9 million tons, down 400 thousand tons from 2008. Use of the whole seed for feed purposes recovered slightly to 2.1 million tons after falling sharply in 2008. Estimated exports of 350 thousand tons were also improved from the 2008 level. Key export markets for U.S. cottonseed included South Korea, Japan, and Mexico.



Figure 65 - U.S. Cottonseed Disappearance

With modestly smaller production and higher offtake for exports and feed, stocks of cottonseed are estimated to decline during the 2009 marketing year (Figure 66). With projected ending stocks of 425 thousand tons, 2009 carryover will be the lowest since the 2003 marketing year.





Cottonseed Prices

The movement in cottonseed prices generally mirrors the changes in competing feed prices. In 2008, average prices moved from a low of \$200 per ton to a high just under \$400 per ton. Calendar 2009 was much less eventful as prices generally ranged between \$200 and \$250 per ton (Figure 67).



Figure 67 - Average Cottonseed Spot Price

2010 Planting Intentions *Price Prospects*

As growers approach the 2010 planting season, cotton prices are approximately 20 cents above year-ago levels (Figure 68). As of late January, December 2010 futures are trading in the low to mid 70's. At this time last year, the December 2009 contract was in the mid 50's. Cotton prices strengthened in the latter half of 2009 as the general economy recovered, the dollar remained weak, and projections called for a tighter cotton balance sheet.



Figure 68 - December Cotton Futures

Although the December 2010 corn contract strengthened somewhat during the second half of 2009, it only served to bring prices back to a level similar to what was observed at this time last year for the December 2009 contract (Figure 69). Although the amount of corn used to produce ethanol continues to grow, corn prices have not maintained the high levels of 2008, due in large part to the changes in oil prices. In addition, U.S. farmers harvested a record corn crop in 2009, allowing stocks to modestly recover.



Figure 69 - December Corn Futures

Since August 2009, the November 2010 soybean contract traded in a sideways range, closing at approximately \$9.30 per bushel in late January (Figure 70). As is the case with corn, the November 2010 contract is trading at very similar levels to the 2009 contract at this time last year. The stagnant price picture is largely driven by developments in soybean production. U.S. farmers harvested a record crop estimated at 3.3 billion bushels. In addition, Brazil is expected to harvest a larger crop later in 2010, further adding to available world supplies.



Figure 70 - November Soybean Futures

As growers consider their 2010 planting decisions, they are comparing prices for cotton, corn, soybeans and other regional crops. Growers will also be influenced by production costs, which have declined from the 2008 peak, but will likely remain at levels similar to 2009. While final acreage decisions are influenced by expected returns of cotton and competing crops, farmers will also take into account weather and agronomic considerations such as crop rotation.

2010 U.S. Cotton Acreage Intentions

In mid-December 2009, the NCC distributed the annual early season planting intentions survey. Respondents are asked to give their plantings of cotton, corn, soybeans, wheat, and other crops for 2009 and intended acreage for 2010. As always, the survey results should be viewed as a measure of grower intentions prevailing at the time the survey was conducted. Changing climate and market conditions could cause actual plantings to be significantly different from growers' stated intentions.

Beginning with the Southeast, survey results indicate a 12.2% increase in the region's upland area to 2.1 million acres (See Table 4 on page 48). All states except Florida indicate increasing cotton acreage. In Florida, growers report a planned 2.7% decrease with acres shifting to soybeans and peanuts. Across the remaining states, the increases range from 8.9% up to 19.9%. Alabama and North Carolina reported the largest percentage increases of 19.9% and 19.5%, respectively. Survey responses in those two states show a shift from corn and soybeans and into cotton. The increases in South Carolina (+12.7%) and Virginia (+10.3%) are largely at the expense of soybeans, while Georgia's additional acres (+8.9%) are generally coming from corn. Total 2010 acreage for each of the states is as follows: Alabama at 306 thousand acres, Florida at 80 thousand, Georgia at 1.09 million, North Carolina at 448 thousand, South Carolina at 130 thousand, and Virginia at 71 thousand.

In the Mid-South, survey results show that

growers intend to plant 1.76 million acres, an increase of 8.4% from the previous year. While all states in the region indicate more acres of cotton, the magnitudes vary from a modest increase of 0.4% in Arkansas to an 18.7% increase in Mississippi. Tennessee's 18.0% increase follows closely behind Mississippi, with Missouri expanding acres by 7.7% and Louisiana adding 1.1% to their 2009 plantings. In Missouri, the survey responses suggest that growers will expand cotton area at the expense of corn. In Arkansas and Tennessee, cotton is being planted on acres that were devoted to wheatsoybean double-cropping in 2009. For growers in Louisiana and Mississippi, the new cotton acres are coming from both corn and soybeans. Total 2010 acreage for each of the states is as follows: Arkansas at 522 thousand acres, Louisiana at 233 thousand, Mississippi at 362 thousand, Missouri at 293 thousand, and Tennessee at 354 thousand.

Growers in the Southwest are planning to bring almost 500 thousand acres into cotton production, bringing the regional total to 5.72 million acres (+9.1%). Oklahoma leads the region with an increase of 26.3% as the survey shows wheat acres being planted to cotton in 2010. Acreage in Kansas is showing a 19.0% rebound, again largely at the expense of wheat. For Texas, survey respondents intend to expand area by 8.3%. Within Texas, respondents from South Texas and the Blacklands regions indicate larger percentage increases in 2010 cotton acres relative to West Texas. Total 2010 acreage for each of the states is as follows: Kansas at 45 thousand acres, Oklahoma at 259 thousand, and Texas at 5.41 million acres

All states in the West region show increases in upland plantings, with the region as a whole up 26.6%. In Arizona, intended area of 175 thousand acres represents a 20.4% increase from the previous year. The expected increase in acreage is coming in response to better price signals and less competition from feed crops and specialty crops. California's actual plantings could ultimately be dictated by water costs and availability. At the time of the survey, California farmers intend to plant 97 thousand acres (+37.1%), with the increase coming at the expense of corn, wheat and specialty crops. New Mexico is reporting intentions of 40 thousand acres, up 31.9% from 2009.

Summing across the 4 regions gives intended 2010 upland cotton area of 9.92 million acres, 10.1% higher than 2009.

Survey results indicate that U.S. cotton growers intend to increase ELS plantings 24.4% to 176 thousand acres in 2010. Each of the 4 ELS-producing states is indicating more acres with California planting 152 thousand acres, or 27.9% more than last year. In addition to improving market prices, growers in California are encouraged by the availability of a new Roundup Flex pima variety. In Texas, a 6.5% increase brings acreage to 19 thousand acres. Producers in Arizona (1,800 acres) and New Mexico (3,100 acres) indicate increases of 5.0% and 3.6%, respectively.

Summing together the upland and ELS cotton intentions shows U.S. all-cotton plantings in 2010 of 10.1 million acres, 10.3% higher than 2009. (See Table 4 on page 48 and Figure 71)



Figure 71 - U.S. Planted Area

2010 U.S. Cotton and Cottonseed Supply

Planted acreage is just one of the factors that will determine supplies of cotton and cottonseed. Ultimately, weather, insect pressures, and agronomic conditions play a large role in determining crop size. However, for the economic outlook, normal or average weather conditions are assumed. In addition, it is assumed that abandonment returns to levels consistent with historical averages.

Assuming an average abandonment across the Cotton Belt of 11.5%, harvested area totals 8.9 million acres (Figure 72). For all states, expected yields are aligned with recent trends. Weighting by 2010 area generates a U.S. average yield of 832 pounds. This compares to a 2009 yield of 774 pounds and a 2004-08 average of yield of 839 pounds. Applying each state's yield to its 2010 projected harvested acres generates a cotton crop of 15.5 million bales, with 15.0 million bales of upland and 473 thousand bales of ELS.



Figure 72 - U.S. Harvested Area

Based on the abandonment and yield assumptions, upland production by region is: Southeast = 3.5 million bales; Mid-South = 3.5 million; Southwest = 7.0 million; and West = 922 thousand.

Combining projected production with expected beginning stocks of 3.7 million bales gives a total U.S. supply of 19.2 million (Figure 73). This is an increase of 420 thousand bales from the 2009 level.



Figure 73 - U.S. Cotton Supply

For cottonseed, multiplying the point estimate of lint production by an average lint-seed ratio generates expected production of 5.2 million tons. With 425 thousand tons of beginning stocks, 2010 cottonseed supply totals 5.7 million tons (Figure 74).



Figure 74 - U.S. Cottonseed Supply

Obviously, weather will have a dramatic impact on the final crop size, particularly in light of the fact that Texas is expected to account for 54% of U.S. cotton area. Under ideal conditions, 17 to 18 million bales would not be out of the question, while weather problems could also push the crop to 12 million bales.

	2009 USDA Actual	2010 NCC Intentions	Percent Change
			8.
		(Thousand Acres)	
SOUTHEAST	1,891	2,123	12.2%
Alabama	255	306	19.9%
Florida	82	80	-2.7%
Georgia	1,000	1,089	8.9%
North Carolina	375	448	19.5%
South Carolina	115	130	12.7%
Virginia	64	71	10.3%
MID-SOUTH	1,627	1,764	8.4%
Arkansas	520	522	0.4%
Louisiana	230	233	1.1%
Mississippi	305	362	18.7%
Missouri	272	293	7.7%
Tennessee	300	354	18.0%
SOUTHWEST	5,243	5,718	9.1%
Kansas	38	45	19.0%
Oklahoma	205	259	26.3%
Texas	5,000	5,414	8.3%
WEST	247	312	26.6%
Arizona	145	175	20.4%
California	71	97	37.1%
New Mexico	31	40	31.9%
TOTAL UPLAND	9,008	9,916	10.1%
TOTAL ELS	142	176	24.4%
Arizona	2	2	5.0%
California	119	152	27.9%
New Mexico	3	3	3.6%
Texas	18	19	6.5%
ALL COTTON	9,149	10,093	10.3%

Table 4 - Prospective 2010 U.S. Cotton Area

U.S. Market

U.S. Textile Industry

Like many other segments of the economy affected by the recession in 2009, the U.S. textile industry experienced more plant closings and job losses. According to the National Council of Textile Organizations (NCTO), an additional 40 textile mills closed in 2009. Approximately 650 textile mills have closed since 1997. Preliminary data from the U.S. Bureau of Labor Statistics indicate that textile industry employment in 2009 fell by approximately 48,000 workers. These figures represent employment in all three sectors of the U.S. textile industry - textile mills, textile product mills, and apparel mills.

Mill Use

Mill use of cotton declined for the 12th consecutive year and is estimated at 3.3 million bales in calendar 2009, 24.1% below 2008 (Figure 75). For calendar 2010, NCC forecasts domestic mill use of cotton at 3.5 million bales and estimates the 2009 marketing year at 3.4 million bales (Figure 76). NCC projects domestic mill use of cotton at 3.4 million bales for the 2010 marketing year.









By the Department of Commerce accounting methods, there are generally 261 effective working days in a calendar year. Hence, a 1,000 bale reduction in daily mill use equates to a reduction of 261 thousand bales in annual mill use (Figure 77). By extension, a 4,000 bale reduction in daily mill use implies annual reductions greater than 1 million bales.



Figure 77 - Daily Avg. U.S. Cotton Mill Use

While average daily mill use continued its decline throughout much of 2009, it was beginning to increase by the end of the year. In January 2009, average daily mill use was 13,535 bales. By November 2009, average

daily mill use had risen slightly to 13,776 bales.

Cotton was not the only fiber that experienced a decline in mill use in 2009; U.S. mill consumption of manmade fibers decreased as well. NCC estimates mill use of manmade fibers at 13.9 million bales for 2009, a decrease of 13.7% from 2008 (Figure 78). Manmade fiber mill use is projected to increase to 15.5 million bales in calendar 2010.





While reliable mill use and trade data are available for 2009, the most recent annual data for U.S. production of apparel and home furnishings were obtained from NCC's annual publication *Cotton Counts Its Customers*. The latest edition contains production data through 2008.

The 2009 edition of *Cotton Counts Its Customers* shows that the apparel industry continues to be hard hit by imports. Total apparel production in 2008 fell to 1.3 million bale equivalents, 29.9% below the 2007 production figure of 1.9 million bales (Figure 79). While all apparel segments experienced a decline in production, men's and boys' apparel experienced the largest decline, dropping 45.3% in 2008. Children's apparel saw the second largest decline (-28.0%) followed by women's, misses', and juniors' with a 13% drop in 2008. Cotton's share of apparel production experienced a decrease from the previous year, falling 5.6% to 50.6% in 2008. Production of cotton apparel fell 36.9% in 2008 to 670 thousand bales (Figure 80).



Figure 79 - U.S. Apparel Production



Figure 80 - Fiber in U.S. Made Apparel

U.S. production of home furnishings, excluding carpeting, also decreased in 2008. The most recent estimates indicate that total production, excluding carpeting, was down 12.6% to 2.1 million bales (Figure 81). The share of cotton in home furnishings, excluding carpeting, decreased in 2008 to 43.5%. Total cotton consumed in home furnishings, excluding carpeting, for 2008 was 910 thousand bales.



Figure 81 - Fiber in U.S. Made Home Furnishings (excludes carpeting)

USDA Textile Trade Conversion Factors Revised Down for Cotton

In October 2009, USDA began publishing textile trade data using new conversion factors. USDA adjusted its cotton textile trade conversion factors to account for the increase in yarn spinning efficiency and the importance of recycling at various stages of textile production over the last 20 years. Increased efficiency means that less raw cotton fiber is consumed to produce the same volume of textile products, and USDA adjusted its cotton textile trade conversion factors down to account for the change.

USDA also reviewed its estimates of the shares of various fibers in selected products. They reduced the estimated share of cotton in a small number of products. As a result, the estimates for U.S. textile trade in terms of other fibers are now slightly higher.

Using USDA's new conversion factors, estimated mill-use equivalence of the cotton fiber in U.S. textile trade is about 5% lower. For all fibers, the decline in estimated trade is smaller than for cotton. USDA's estimated mill-use equivalence of all fibers in U.S. textile trade is 3% lower with the new conversion factors. Cotton's share of U.S. textile trade was also smaller. Since the large majority of cotton products consumed in the United States are imported, retail use (or net domestic consumption) of cotton products by U.S. households is also smaller, down about 4%.

USDA has revised its historical trade data back to 1989 to reflect the updated conversion factors. Net domestic consumption and textile trade data stated in this report in bale equivalents reflects the revisions made by USDA in its trade data.

Net Domestic Consumption

Net domestic consumption is a measure of the U.S. retail market's size. It measures both cotton spun in the U.S. (mill use) and cotton consumed through textile imports. Total fiber consumption in 2009 is estimated to be 42.7 million bale equivalents (Figure 82). Cotton's share of net domestic consumption decreased 1.0% this past year to 43.0%, which translates to 18.4 million bales. For 2010, NCC projects net domestic consumption of all fibers to increase to 45.9 million bales. With a projected share of 43.1%, cotton's net domestic consumption is projected to be 19.8 million bales.



Figure 82 - Net Domestic Fiber Consumption

Imported goods make up the largest portion of U.S. net domestic consumption. However, for the second time since 2001, imported cotton textiles declined from 20.5 million bale equivalents in 2008 to an estimated 18.2 million in 2009 (Figure 83).



Figure 83 - Components of Retail Cotton Consumption

Textile Trade

Increasing imports over the past several years have devastated the U.S. textile and apparel industries. While cotton textile imports did not increase in calendar 2009, they still accounted for almost 99% of U.S. net domestic consumption of cotton. Imports of cotton goods in 2009 were estimated to have diminished by 11.3% to 18.2 million bale equivalents (Figure 84). In calendar 2010, NCC projects cotton textile imports to increase to 19.5 million bales.



Figure 84 - U.S. Cotton Textile Imports

For imports, it is important to consider that a significant portion of imported goods

contain U.S. cotton. Since much of what the U.S. exports to the NAFTA (North American Free Trade Agreement) and the CBI (Caribbean Basin Initiative) countries is in the form of fabric and piece goods that come back in the form of finished goods, the trade gap is not as wide as implied by gross imports and exports. NCC analysts estimate that 26.8% of all cotton goods imported in 2009 contained U.S. cotton. This is a 1.2% decrease over the previous year. In bale equivalents, these imported cotton goods contained 4.9 million bales of U.S. cotton (Figure 85). This is due, in large part, to our trading partners in NAFTA and the CBI.



Figure 85 - U.S. Cotton Content in Textile Imports

U.S. Cotton Product Imports

Apparel was once again the largest category of imported cotton goods when compared to yarn, thread and fabric, and home furnishings (Figure 86). Cotton apparel imports were estimated at 13.5 million bale equivalents for 2009, down 10.0% from 2008. Imports of cotton home furnishings (including floor coverings) decreased 9.1% in 2009 to an estimated 3.4 million bale equivalents. Cotton yarn, thread and fabric imports decreased 21.8% in 2009 to an estimated 1.2 million bales.

Once again, countries in NAFTA and CBI represented significant sources of imported cotton goods in 2009 (Figure 87). Imports

from Mexico in 2009 were estimated at 1.2 million bales, down approximately 15.9% from the previous year (Figure 88). This marks the ninth straight year in which imports from Mexico have declined. Imports of cotton goods from Canada also fell to an estimated 77 thousand bales in 2009, sliding 26.0% from the previous year (Figure 89). Imported cotton goods from CBI for the year were estimated at 2.3 million bale equivalents (Figure 90), down 22.6% from the previous year. The CAFTA-DR countries of Costa Rica. El Salvador. Guatemala, Honduras, Nicaragua, and the Dominican Republic are all part of the CBI region. Imports of cotton goods from CAFTA-DR in 2009 were 2.0 million, or 85.7% of the cotton textile imports from CBI. Combined, imports from NAFTA and CBI countries fell 20.5% and accounted for 19.8% of total U.S. cotton product imports in 2009.



Figure 86 - U.S. Cotton Product Imports



Figure 87 - U.S. Import Source of Cotton Products



Figure 88 - U.S. Cotton Product Trade with Mexico



Figure 89 - U.S. Cotton Product Trade with Canada



Figure 90 - U.S. Cotton Product Trade with CBI

Other top sources of imported cotton goods in 2009 were China, Pakistan, India, Hong Kong, Bangladesh, Vietnam, and Turkey. For the fifth consecutive year, China was the largest supplier of cotton textile imports into the U.S. (Figure 91). Also, China was one of the few countries that showed an increase in their cotton product imports into the U.S. in 2009 compared to 2008. Total cotton product imports from China increased slightly to an estimated 5.6 million bale equivalents in 2009, up 4.2% from 2008 and up more than 500% from 2001 when China entered the WTO. China's share of imported cotton goods in the U.S. market accelerated from 11.3% in 2004, 21.2% in 2005, 25.6% in 2006, 30.2% in 2007, and 29.5% in 2008 to 30.8% in 2009. Imports of cotton products from Pakistan are estimated at 1.8 million bale equivalents in 2009, a decrease of 175 thousand bales. Although imports from Pakistan decreased in 2009, since 1997. Pakistan imports have increased 164.7%. Pakistan lowered its share of imported cotton goods in the U.S. market last year to 9.7%. Imports from India stood at 1.4 million bale equivalents for 2009. This was a 7.3% decrease from last year but a 101% increase from 1997. India now accounts for 7.9% of all U.S. cotton product imports. Imports from Hong Kong in 2009 were 50 thousand bale equivalents, down 82.8% from 2008. Hong Kong's share of

imported goods in the U.S. declined to 0.3% in 2009. One of the few countries to show a boost in cotton product imports into the U.S. when compared to the previous year was Bangladesh. Imports from Bangladesh in 2009 were up 1.1% from 2008 to 1.2 million bale equivalents. Bangladesh accounted for an estimated 6.5% of all cotton goods imported into the U.S. in 2008. Vietnam also showed an increase in cotton product imports into the U.S. when compared to the previous year. Total cotton product imports from Vietnam increased to an estimated 895 thousand bale equivalents in 2009, up 12.4% from 2008.



Figure 91 - U.S. Cotton Product Imports from China

It is important to note in the following discussion that the most reliable data on imports by product category and by country is in the form of square meter equivalents (SME), rather than pounds or bales. Since different products have different weights per square meter, total imports reported in bale equivalents will not necessarily show the same trend as total imports expressed in SME. NCC expresses imports in bale equivalents whenever possible, but the measurement of SME best represents product categories imported from individual countries.

<u>Mexico</u>

Although declining relative to other countries, Mexico remained a large shipper of cotton goods to the U.S. in 2009. Cotton trousers remained the largest category of imported cotton goods from Mexico. Trousers accounted for 33.9% of all cotton product imports from Mexico based on SME (Figure 92). Knit cotton shirts were the next largest category of imports, accounting for 18.8%, followed by cotton hosiery (9.8%) and "other cotton manufactures" (6.8%). The U.S. Customs Service category "other cotton manufactures" includes items such as tablecloths, napkins, dishtowels and pillow covers.



Figure 92 - Cotton Product Imports from Mexico

<u>Canada</u>

U.S. cotton imports from Canada decreased for the seventh consecutive year in 2009. The largest category of imports from Canada in 2009 was "other cotton manufacturers", which accounted for 42.0% of total SME of cotton product imports from Canada (Figure 93). The next largest category was bedspreads and quilts with 5.4% of total imports, followed by "other cotton apparel" at 4.9% and towels at 2.6%. The U.S. Customs Service category "other cotton apparel" includes items such as waistcoats, swimwear, bodysuits and scarves.



Figure 93 - Cotton Product Imports from Canada

Caribbean Basin Initiative (CBI)

Continuing the recent trend, CBI countries shipped more cotton goods to the U.S. than did NAFTA countries in 2009. The largest category of imported cotton goods from the region was knit shirts, accounting for 35.9% of total imports, based on SME (Figure 94). Approximately 84.2% of the knit shirt imports from CBI came from the CAFTA-DR countries. The second largest category, underwear, accounted for 34.4% of imports. followed by cotton hosiery (12.9%) and trousers (9.8%). Of these imports, 89.2% of the cotton underwear, almost 100.0% of the cotton hosiery and 94.1% of the cotton trousers were from the CAFTA-DR countries



Figure 94 - Cotton Product Imports from CBI

<u>African Growth & Opportunity Act</u> (AGOA)

Over the past year, total cotton apparel product imports from the AGOA region decreased by 20.9% to an estimated 168.7 million SMEs (Figure 95). However during the past year, the percentage of U.S. cotton apparel imports from the AGOA region receiving preferential treatment under the act increased from 99.0% to 99.6%.





<u>Pakistan</u>

The largest category of imported goods from Pakistan in 2009 was "other cotton manufactures" (Figure 96). This category accounted for 34.4% of all cotton product imports from Pakistan based on SME. The second largest category imported from Pakistan was cotton sheets with 17.6% of total imports, followed by bedspreads and quilts (10.1%) and cotton hosiery (6.4%).

Cotton Product Imports from Pakistan



Figure 96 - Cotton Product Imports from Pakistan

<u>China</u>

Again last year, the single largest supplier of imported cotton goods into the U.S. market was China. On a SME basis, the largest category of cotton product imports from China in 2009 was "other cotton manufactures", which accounted for 23.5% of all cotton product imports from that country (Figure 97). Trousers was the second largest category of cotton imports from China in 2009, comprising 10.5% of total cotton product imports from that country. Nightwear accounted for 6.4% of U.S. cotton textile and apparel imports from China in 2009. Cotton sheets were the fourth largest category and accounted for 5.4% of cotton product imports.



Figure 97 - Cotton Product Imports from China

<u>India</u>

As was the case with Pakistan and China, the largest category of imported cotton goods from India in 2009 was the category of "other cotton manufactures" (Figure 98). When based on SMEs, this category represented 32.5% of all cotton goods imported from India. The next largest category was cotton sheets (9.3%), followed by underwear (8.8%) and knit shirts (6.1%).





<u>Hong Kong</u>

Hong Kong's share of U.S. imports has been declining over the past several years. The largest category of imported cotton goods from Hong Kong in 2009 was woven shirts (Figure 99). When looking at SMEs, woven shirts accounted for 21.1% of all cotton products imported. The second largest category was trousers with 16.2% of imports, followed by knit shirts (12.8%) and "other cotton manufacturers" (11.9%).



Figure 99 - Cotton Product Imports from Hong Kong

<u>Bangladesh</u>

Based on SMEs, the largest category of cotton goods imported from Bangladesh in 2009 (34.1%) was trousers (Figure 100). The second largest category in 2009 was woven shirts (13.3%). Cotton underwear was the third largest category in 2009, representing 13.2% of total cotton goods imported from Bangladesh, followed by knit shirts at 8.9%.



Figure 100 - Cotton Product Imports from Bangladesh

<u>Vietnam</u>

Vietnam has emerged as a more significant supplier of cotton product imports (Figure 101). U.S. cotton product imports from Vietnam have increased by more than 4,000% based on SME since 2001. In 2001, the U.S. imported 24.3 million SME of cotton goods from Vietnam. This number increased to an estimated 1.0 billion SME in 2009. The largest category of imported cotton goods from Vietnam in 2009 was knit shirts. Based on SMEs, this category represented 21.9% of all cotton goods imported from Vietnam. The next largest category was trousers (21.3%), followed by cotton underwear (12.4%) and coats (6.9%).





<u>Turkey</u>

Cotton product imports from Turkey continued their recent downward trend. Based on SMEs, the largest category of cotton goods imported from Turkey in 2009 was cotton sheets, which accounted for 30.5% (Figure 102). The second largest category in 2009 was "other cotton manufactures" (18.9%), followed by bedspreads and quilts (7.4%) and cotton pillowcases (4.7%).



Figure 102 - Cotton Product Imports from Turkey

U.S. Cotton Product Exports

For the fifth consecutive year, exports of U.S. cotton textile and apparel products experienced a decrease in 2009 (Figure 103). Exports declined by 19.0% in 2009 to an estimated 3.1 million bale equivalents. This reduction was due to a drop in all the export categories of cotton yarn, thread and fabric, cotton home furnishings (including floor coverings) and cotton apparel (Figure 104). Cotton apparel exports faded by 9.7% in 2009 to 287 thousand bale equivalents. Exports of home furnishings (including floor coverings) weakened by 25.8% over the previous year to an estimated 89 thousand bale equivalents. Exports of cotton yarn, thread, and fabric decreased by 19.4% to 2.7 million bales equivalents over the previous year. For 2010, NCC projects U.S. cotton textile exports to increase 100 thousand bales to 3.2 million bale equivalents.



Figure 103 - U.S. Cotton Textile Exports



Figure 104 - U.S. Cotton Product Exports

The top customers of exported U.S. cotton textiles and apparel in 2009 were once again the NAFTA and CBI countries (Figure 105). Exports to the NAFTA countries last year totaled an estimated 889 thousand bale equivalents, down 16.0% from the previous year. Exports to the region accounted for 28.6% of all U.S. cotton product exports. Exports to Mexico decreased to an estimated 661 thousand bale equivalents from 778 thousand in 2008. Cotton product exports to Canada shrunk by an estimated 18.5% to 228 thousand bale equivalents for 2009.



Figure 105 - U.S. Exports of Cotton Products

U.S. exports to the CBI countries also weakened last year. In 2009, exports decreased 24.7%, totaling 1.8 million bale equivalents or 58.8% of all U.S. cotton exports. This was 11.5% lower than 2002 exports but 7.1% higher than 2001 cotton product exports to CBI. Approximately 98.5% of the cotton products exported to CBI went to the CAFTA-DR countries.

World Market Situation

World cotton prices, as measured by Cotlook Ltd.'s "A" Index, ranged between 50.15 and 79.10 cents per pound during the course of calendar 2009 (Figure 106). The "A" Index continues to slowly inch its way up and currently hovers around 77.00 cents per pound. For the current marketing year to date, the "A" Index has averaged 69.97 cents per pound.



Figure 106 - "A" (FE) Index

World

The 2009 marketing year will mark the third consecutive year of declining world cotton production with a crop of 102.7 million bales (Figure 107). The smaller cotton crops was a direct result of lower relative commodity prices and weaker global demand for cotton. China remains the leading producer while India has enjoyed improved yields. The United States produced a crop of 12.4 million bales, more than 400,000 below 2008 and the smallest since 1989.



Figure 107 - World Cotton Supply & Use

In 2006, world production was roughly 1.8 million bales behind the pace of world consumption. That gap grew to 3.7 million bales during the 2008 marketing year. The most recent 2009 estimates place world consumption at 114.6 million bales and production at 102.7 million bales, with a crop-to-use deficit of 11.9 million bales.

Production is projected to rebound in the 2010 marketing year to 113.9 million bales with a modest increase in consumption to 117.3 million. This implies further reductions in ending stocks, with a stock-to-use ratio just over 43%.

China

China remained the largest cotton producer with a 2009 crop of 32.0 million bales (Figure 108). The crop was roughly 4.7 million bales smaller than the 2008 crop. The decrease was based on fewer planted acres along with lower yields. Some estimates had total planted area decreasing by as much as 12% in the 2009 marketing year. The decline in China's cotton acreage resulted from relatively higher profit margins for grain crops when compared with cotton. Another factor is government policy. The Government of China's (GOC) agricultural policy continued to favor grain crops, which receive more direct subsidies (it has been reported that grain crops received a combined subsidy of \$53 U.S. per acre, compared to \$9 per acre of cotton).



Figure	108 -	China	Cotton	Supply	٤	معلا
Iguie	100 -	Giiiia	COLLOIT	Suppry	œ	USE

However, there are policies in place to help maintain stable cotton production. In 2007. the GOC began to subsidize cotton production through a multi-year "seed subsidy" program. China's Ministry of Agriculture (MOA) appropriated a total of 500 million Yuan (\$72 million) per year in 2007 and 2008 to cottonseed producers/traders to cover 5.6 million acres in major cotton-producing provinces. On March 5, 2009, MOA and Ministry of Finance published Nong Cai Ban (2009) No. 20 Announcement on Guidance on the 2009 Seed Subsidy. The announcement indicated that seed subsidies for cotton will expand to cover all cotton planted area. The subsidy continues to be allocated to large seed producers/traders for selected "high quality varieties" through an open bidding process. The rate remained unchanged at approximately \$13 per acre (RMB 15 per Mu). The amount of seed subsidy to cotton was not officially published; however, total appropriations in 2009 were expected to exceed \$180 million (RMB 12.6 billion) based on an estimated 13.8 million acres planted area.

The seed subsidy policy was aimed at stabilizing planted area. It is also expected that cotton quality will be more uniform because selected "high quality varieties", seeds eligible to be subsidized are likely to increase in area coverage. Given the increasing cotton production-consumption gap and the importance placed on maintaining a stable planting area, the policy is assumed to remain in place for the foreseeable future.

With the continued support of the Chinese government and seed cotton prices substantially above year-ago levels, a slight increase in cotton production is expected in 2010. China's 2010 harvested cotton area is projected at 13.7 million acres, up just over 680,000 acres from 2009. Assuming trend yields, China is projected to remain the world's largest cotton producer with a projected 2010 crop of 33.8 million bales.

Along with being the world leader in cotton production, China is also the largest consumer of raw cotton. China's textile industry will remain one of China's "pillar industries". According to China's 11th Five Year (2006-2010) Plan for Development of the Textile Industry, total fiber production is forecast to reach 36 MMT by 2010, with an annual growth rate of 6%. Moreover, per capita fiber consumption is expected to rise from 16.8 to 18.0 kg, an annual growth rate of 7%. Employees involved in this sector are forecast to reach 23 million, up from the current 20 million.

Sales of textiles and apparel are increasingly driven by domestic consumption resulting from increased disposable incomes and population growth. According to China's National Statistics Bureau (NSB), the per capita expenditure on clothing by urban residents remained 5.4 times that of rural people. Nevertheless, as rural income rises, better clothing will be high on their list of new purchases for China's 727 million rural residents. China's mill use increased by 1.8 million bales between the 2008 and 2009 marketing years, resulting in an estimated 46.8 million bales for 2009. For the 2010 marketing year, China's consumption is projected to continue to grow to 48.0 million bales.

China remains a net importer of cotton fiber, and the gap between in imports and exports has been growing larger for the past two marketing years. For the 2009 marketing year, net imports are expected to grow to 9.2 million bales, based on the smaller production and slight improvement in mill demand. The same trend holds for the 2010 marketing year, and net imports are expected to grow to 10.8 million bales as consumption outpaces China's production.

India

The latest estimates have India producing 23.5 million bales for the 2009 marketing year (Figure 109). If these estimates hold, the 2009 crop will be 900,000 bales higher than the 2008 crop.



Figure 109 - India Cotton Supply & Use

Cotton production has been a major success story in Indian agriculture as production more than doubled from 10.6 million bales in the 2002 marketing year to a record 24.0 million bales in 2007. Cotton production in 2008 faltered on late planting due to a prolonged dry monsoon spell in July and August 2008. About 70% of total cotton production occurred in the states of Gujarat, Maharashtra and Andhra Pradesh. The production growth in recent years has been largely fueled by rapid gains in productivity. Cotton yields have gone from 269 pounds per acre in 2002 to 445 pounds per acre in 2009. The rapid growth in yields can be attributed to the introduction and expansion of Bt cotton and improved hybrid cotton varieties, improved crop management practices and overall favorable weather conditions.

With the area under Bt cotton and improved varieties reaching a plateau, the prospect for future growth in productivity is limited as most cotton is grown under rain fed conditions and on small size land holdings. Although potential exists for a further increase in yields, cotton farmers will have to invest more in production technologies to improve management of irrigation, usage of fertilizers and micro nutrients, and control of pests and diseases.

Assuming normal weather and a modest expansion in planted area, India's cotton production is forecast at 25.4 million bales in 2010. This is roughly 2.0 million bales above 2009 and would be an all time high in terms of cotton production in India. Some industry sources estimate cotton production to peak around 27.0 million bales in the next 2-3 years.

India's mill consumption is estimated to rebound to 18.8 million bales in the 2009 marketing year, up 860,000 bales from the previous year. The growth in mill use is based on improvements in domestic and export demand for textiles and sufficient domestic supplies. After robust growth for three consecutive years, India's cotton consumption faltered during the 2008 marketing year due to a slowdown in export demand and higher cotton prices. However, the strong depreciation in the value of the Indian rupee vis-à-vis the U.S. dollar since the beginning of 2009 has resulted in a revival in export demand. Many believe continued growth in consumption will take place due in part to continued growth in the economy, an expanding middle class and a strong rural economy. If this holds true, then India's mill use should grow to just over 19.3 million bales in the 2010 marketing year.

After emerging as the second largest exporter of cotton behind the United States for two consecutive years, India's cotton exports fell off sharply in the 2008 marketing year as the higher minimum support price (MSP) rendered Indian cotton uncompetitive in the international market. However, India re-emerged as a major player in the international market with an estimated 6.6 million bales of cotton exported in the 2009 marketing year. Major export destinations have been Bangladesh, Pakistan, China and other Far East countries. Most exports are expected to be of mediumto-long staple cotton (32-40 32nd of an inch) to neighboring countries, China and Far East countries. India should continue to import ELS and quality long staple cotton (36-43 32^{nd} of an inch), with occasional imports of short staple cotton (below 28 32nd of an inch) when international prices are favorable. The United has been the leading supplier of cotton to India over the past few years, but volumes have declined in recent vears due to sufficient domestic supplies. Indian mills importing U.S. Pima and upland cotton are appreciative of its quality and consistency. However, U.S. cotton faces increased competition from suppliers such as West Africa, the Commonwealth of Independent States (CIS) and Australia due to their freight advantage and shorter delivery periods.

For the 2010 marketing year, India is expected to rebound in terms of trade with exports of 7.1 million bales.

Uzbekistan

Current estimates put Uzbek cotton production at 4.4 million bales for 2009 (Figure 110), down 200,000 bales from the previous year. Cotton has been the cash crop in Uzbekistan for generations and a significant source of employment and foreign exchange. However, for the past several years, Uzbekistan has experienced serious problems in cotton production for a number of reasons, including weather, inadequate production incentives (i.e. prices), inadequate and low quality inputs and deteriorating infrastructure, especially irrigation.





However, in recent years, Uzbekistan is increasing the use of faster maturing and higher quality seed varieties. During the last 5 years, the government initiated a major program to reform the cotton sector, aimed mainly at improving fiber quality. Furthermore, the local ginning industry has made some improvement in their ginning technology. For the 2010 marketing year, Uzbek cotton production is projected to rebound by 795,000 bales and pass the 5.0 million bale mark with production estimated at 5.2 million bales. The government of Uzbekistan still maintains tight control over all aspects of cotton production, including area planted, production targets, prices, inputs, procurement and marketing nearly all cotton. Domestic supplies are allocated according to the government's quota or plan, mainly to State Joint-Stock Company "Ozengilsanoat" which then distributes cotton to domestic mills according to sales contracts. The local textile mills can also buy cotton through the Commodity Exchange.

The government has often stated that it would like to process more of Uzbekistan's cotton production domestically, but it has had only limited success. Less than 25% of all cotton is consumed domestically. Prior to the world economic slump, the spinning and weaving industries had been investing heavily in new equipment and renovation of existing equipment, as domestic and export demand grew, especially for cotton yarn. As global markets have contracted, the textile industry more than ever must aggressively pursue quality improvements and production diversification to include more value-added products, rather than to rely mainly on low value yarn based exports if it wants to remain competitive.

Currently, there are more than 40 joint ventures established in the textile industry with partners from Turkey, Germany, South Korea, Japan and Switzerland. As of 2008, foreign investment in the textile industry reached about \$1.0 billion (U.S. Dollars). Cotton yarn production was projected to grow 50,000 tons, fabrics by 5.5 million square meters, and knitted products by 7.7 million pieces. However, these production goals proved to be unrealistic in light of slack global demand. As a result, Uzbek domestic cotton consumption fell to less than 1.0 million bales in the 2009 marketing year. For 2010, Uzbekistan's mill use is projected to surpass the million bale mark

with an estimate of just over 1.0 million bales in cotton consumption.

The government still controls both stateorder cotton and over-quota free cotton through the trading companies associated with the Ministry of Foreign Economic Relations, Investments and Trade (MFERIT). MFERIT coordinates sales, export prices and shipments of cotton. China, Bangladesh, Korea and Russia remain the traditional buyers of Uzbek cotton. With those markets, Uzbekistan will remain a net exporter of cotton for the foreseeable future exporting an estimated 4.1 million bales of cotton in the 2010 marketing year.

Pakistan

Cotton accounts for 10% of Pakistan's agricultural GDP, and textiles account for 55% of Pakistan's foreign exchange earnings. Cotton production supports Pakistan's largest industrial sector, comprised of over 400 textile mills, 1,000 gins and 300 oil mills, thus providing an economic livelihood for millions of farmers and those employed along the entire cotton value chain. Any growth in the national economy is strongly linked to the volume and value of cotton and cotton by-products.

Pakistan's cotton production has seen a steady increase in recent years. In 2009, cotton production grew 800,000 bales to 9.8 million bales. Continued growth is expected for the upcoming marketing year with improved prices.

With increased acres and yields that continue to improve thanks to better management practices, greater experience with cultivating BT cotton varieties and the availability of better quality inputs, production is projected to grow to roughly 10.4 million bales in 2010 (Figure 111).



Figure 111 - Pakistan Cotton Supply & Use

Little growth was seen in Pakistan's consumption numbers between 1991 and 1998, averaging 6.9 million bales. However, cotton mill use increased sharply in 1999 in response to aggressive export pricing of cotton yarn. After nearly a decade of growth, consumption fell to 11.5 million bales in 2008, down roughly 500,000 from the previous year.

Synthetic fiber continues to gain acceptance among consumers who increasingly seek less expensive blended products to compensate for their shrinking buying power. The future growth in cotton versus synthetic fiber will be determined by the relative price of these items. The long-term trend is for synthetics to comprise an increasing share of domestic consumption. Cotton-synthetic blends are popular due to their durability, ease in washing and maintenance under tropical conditions. The growth in synthetic fiber use has shown an increase.

Despite these obstacles and the fragile global economy, Pakistan's mill consumption is projected to build on the growth seen in the 2009 marketing year (up 599,000 bales to 12.1 million bales) to roughly 12.5 million bales for the 2010 marketing year.

Pakistan remained a net importer of 2.3 million bales during the 2009 marketing year. Firms often import upland cotton for their export programs due to contamination problems in local cotton, particularly with alien fibers, mainly polypropylene and jute. The problem occurs during harvesting and handling. The inclusion of these fibers wreaks havoc in the industry by creating yarn with differential strength and differential dye uptake. Estimates are that contamination increases a mills' cost by 10% or more. Some mills have standardized their blend for export markets, with a predefined origin and percentage of imported cotton in the product. Recently, Pakistan has purchased significant quantities of short to medium staple cotton from India. Trade through land routes, more costeffective than sea, has helped the domestic industry stay competitive. Buyers are focused on non-U.S. suppliers for medium grade cotton due to the significant price difference; however, despite high freight charges, importers of long staple cotton prefer U.S. origin due to high quality standards. These practices should keep Pakistan a net cotton importer in 2010. Cotton imports for the 2010 marketing year are expected to remain around the 2.7 million bale range.

Turkey

Most of Turkey's cotton is planted between mid-March and mid-May and harvested from mid-August through November. The crop is grown in three main areas: the Aegean region, Cukurova, and Southeastern Anatollia (GAP). Small amounts of cotton also are produced around Antalya and Antakya.

Between 2004 and 2007, Turkey's production averaged 3.7 million bales. For the 2008 marketing year, Turkey produced an estimated 1.9 million bales (Figure 112). The 2008 marketing year was a difficult

year for Turkish cotton growers due to a lack of water and price increases for all agricultural inputs including petroleum, fertilizer, and electricity. In addition to higher input prices, better returns for wheat and corn production, a lack of irrigation water, and lower than expected government payments for cotton all contributed to the drop in cotton production.





Turkish cotton area and production declined for the third consecutive year in 2009 to an estimated 692,000 acres harvested with 1.7 million bales of production. The continued decline in cotton area and production is the result of low farmer returns on cotton and expectations of better returns on wheat and corn or wheat and corn rotations. In contrast to 2008, when lack of irrigation water was a source of concern, all cotton growing regions received adequate precipitation, and reservoirs had sufficient water for irrigation for the 2009 growing season. In spite of the favorable weather, farmers planted less cotton because of high input costs, low local prices and no effective production support system.

For 2010, with increased acres and improved yields due to improved planting techniques and increased utilization of certified seeds, cotton production is estimated to increase to 2.4 million bales.

The Turkish textile industry was adversely affected during the last few years by fiscal and monetary policies that strengthened the Turkish Lira, which in turn hurt exports and facilitated imports of low cost yarn and fabric from India, Pakistan, China and Turkmenistan. The 2008 global economic slump in Turkish textile export markets, such as the EU, and the removal of Chinese textile export quotas were other negative factors adding to the already difficult environment. The high cost of labor, electricity and transportation in Turkey caused many mills to suspend operation. Furthermore, some mills moved to low cost countries such as Egypt and others sold their machinery. About 1.0 million spindles have reportedly been moved out of Turkey during the last few years.

Despite the recent downturn, the textile industry continues to be one of the most important sectors for the Turkish economy, accounting for 8% of GNP, 16% of industrial employment and 21% of total exports. Investments by the Turkish textile industry since 1985 are estimated at about \$85 billion U.S. dollars. There are an estimated 6.0 million spindles and 800,000 rotors in Turkey. With that in mind, mill use for the 2010 marketing year should increase by roughly 90,000 bales to 5.2 million bales while imports fall slightly to roughly 3.0 million.

Australia

Australia's crop was 640,000 bales in 2007, the smallest crop in over 20 years. Production in 2008 rose to 1.5 million bales of cotton, an increase of 860,000 (Figure 113). Much needed rainfall in key regions greatly improved the irrigation water supplies leading up to the 2008 marketing year. The increase in harvested area accounts for the increase in production.



Figure 113 - Australia Cotton Supply & Use

With timely rains, Australia continued to improve production with a 2009 crop estimated at 1.8 million bales. The Western Australian (WA) State Government has lifted the moratorium on the commercial production of genetically modified (GM) cotton. This will likely be a significant development for the Ord River Irrigation Area (ORIA) in the state's north.

Cotton was previously grown in the ORIA in the 1960's but was discontinued due to severe insect and pest problems. The availability of GM cotton will likely see cotton grown in the ORIA sometime in the foreseeable future. According to industry experts, the major challenge will be to produce enough cotton to sustain processing operations. However, the WA government recently announced plans to expand the ORIA by 34,500 acres. GM cotton could become a major new profitable industry for WA. A report released in 2008 by the previous state government-appointed reference group on GM crops estimated that GM cotton could be worth more than \$50 million a year to the East Kimberly region, generating more than 200 full-time jobs. The ORIA has abundant water resources and is the closest potential cotton growing region to Indonesia, Australia's second largest market.

With continued support from the government and a return to more normal weather, Australia should see production grow to 2.1 million bales in 2010. Australia exports virtually all of their cotton production. For the 2009 marketing year, exports are estimated to reach 1.7 million bales. With the increase in production in the 2010 marketing year, exports are expected to rise to 1.8 million bales.

Brazil

According to the Ministry of Agriculture, Brazil provided R\$549 million (\$236.8 million U.S. dollars) to the cotton industry in support for commercialization in 2008. This amount, while significant, is considered to be de minimis spending, as it is less than 10 % of the value of production, and is therefore not counted against Brazil's Aggregate Measurements of Support (AMS) commitment in WTO. This support was provided exclusively through the use of the Equalization Premium Paid to the Producer (PEPRO) program. PEPRO is a subsidy paid to the producer or cooperative to help market cotton. The amount paid is the difference between the reference price (based on the minimum guaranteed price) and the highest bid at the government auction. The recipient then has until a specified date to sell the product and provide proof to the government, with the required documentation determined by whether the product was sold within the state, sold outside of the state, or exported. The government is expected to utilize PEPRO again, as it is extremely popular with producers. This program along with several others are utilized to support commodity prices and to assist in the flow of cotton from the production areas to the consumption areas.

Along with the continued support in the form of government programs, adoption of new biotech cottonseed varieties add to a positive outlook for the 2010 crop. Current estimates place production for the 2009 marketing year at 5.6 million bales (Figure 114). For the 2010 marketing year, harvested area is estimated at 2.2 million acres, an increase of 182,000 acres. Along with the increased acres, production increases to roughly 6.0 million bales.



Figure 114 - Brazil Cotton Supply & Use

Brazilian mill use for the 2009 marketing year stabilized at 4.2 million bales. Brazilian cotton consumption will remain relatively stable in the 2010 marketing year with mill use estimated at 4.3 million bales.

In terms of trade, Brazil exported 2.0 million bales of cotton in the 2009 marketing year, 742,000 bales less that what was exported in 2008. For the 2010 marketing year, exports are expected to remain unchanged at 2.0 million bales.

West Africa

Cotton area in West Africa is difficult to predict before the annual cotton and input prices are announced through the national pricing policy in each country. Farmer intentions are also influenced by whether or not farmers were paid for the previous year's crop. Finally, each cotton sector begins the new marketing year with significant old-crop debts and new financing requirements for the next crop. Financing difficulties and delays affect the procurement and distribution of inputs, which affect planting decisions. Input credits are a key incentive for cotton producers to continue to grow cotton despite low fiber prices. However, the increase in input prices in recent years have combined with competition for inputs from cereal crops from national cereal production schemes to diminish this incentive. All of these factors came into play in the 2009 marketing year. Cotton production fell 30,000 bales to 2.4 million bales in 2009.

In the four cotton-producing countries of Mali, Burkina Faso, Benin and Chad (C-4), cotton production continues to play an important role in the economy. The cotton sector in Mali has been in a precarious state for the past couple of years. The privatization of the Compagnie Malien Pour le Developpement des Textiles (CMDT), the State cotton company, has significantly increased uncertainty in a sector that was already mired in high debts. Producer incentives to grow cotton can only be expected to fall further, and a number of smaller producers are likely to stop producing cotton. However, it is unlikely that the government, international organizations and donors will allow cotton to completely fail in Mali. The government has plans to subsidize inputs for those willing to plant cotton.

In Burkina Faso there is cautious optimism for the commercialization of BT cotton. However, low prices and debts throughout the cotton sector continue to stymie significant sustainable growth.

The government of Benin has announced a widespread plan to revive the cotton sector. Benin has higher yields and better port access than other C-4 producers. Like Burkina Faso, there is a future for cotton in Benin. However, delays in import, financing and distribution of inputs are annual problems in Benin, as well as other West African countries.

It is a different story in Chad. While the government has increased funding for research and extension, the future of cotton remains uncertain in the absence of reform. The structural problems in the cotton sector in Cote d'Ivoire have been compounded by the recent civil war and ongoing political uncertainties. Despite international sanctions, the cotton sector in Cote d'Ivoire has attracted some development assistance and investment. There remains significant potential for cotton production in this part of West Africa. Senegal has produced between 70,000 and 100,000 bales of cotton over the past few years, making it the most consistent (albeit small) producer in the region of high quality fiber. This is expected to continue for the upcoming marketing year.

Despite all the obstacles facing cotton producers in this region, cotton remains an important cash crop in most of Francophone West Africa, Cote d'Ivoire and Senegal. The current projections have West Africa producing 2.6 million bales in 2010 (Figure 115). With this size crop, West Africa continues to measurably affect the cotton export market, since virtually all of its production is sold abroad. The region exports between 95 and 98% of its cotton production. For the 2009 marketing year, it is estimated that the region will export 2.3 million bales. For 2010, West Africa is expected to increase their exports to 2.4 million bales.



Figure 115 - West Africa Cotton Supply & Use

The world cotton industry is well aware of West Africa's claims of economic injury caused by the presence of the U.S. cotton program. However, their potential for growth and stability is not determined by the U.S. cotton program, but instead depends on whether or not they can address a number of internal issues related to their production, ginning, price discovery, and distribution systems.

Mexico

Mexican cotton production for marketing year 2009 fell to 415,000 bales, 160,000 bales lower than the previous year. The decline in production resulted from reduced area. Cotton yields across the main cotton producing areas vary significantly. The highest yield per hectare is expected in the La Laguna region where cotton growers have adopted the use of genetically modified seed varieties. The Confederation of Mexican Cotton Associations (CMCA) stated that biotechnology continues to be an important tool in reducing pesticide use by more than 50% as well as stimulating an increase in yields. More producers are becoming aware of the benefits genetically modified seeds could provide for production purposes since they are obtaining yields around 6.0 bales per hectare where in the past conventional seeds produced yields of 3.5 bales per hectare. It is expected that this

improved seed will be planted mainly in Chihuahua, Mexicali and the La Laguna region (Coahuila and the Durango states), which all have the best infrastructure and resources to use the seed. Other factors that have influenced the gradual yield increase in the past few years include improving the cultural practices, such as: narrow furrows, better prevention methods against diseases, and the investment in new equipment. These improved planting practices along with an increase in acres should result in crop of roughly 599,000 bales in the 2010 marketing year (Figure 116).



Figure 116 - Mexico Cotton Supply & Use

In terms of consumption, Mexico's outlook should improve slightly relative to 2009. Marketing year 2009 mill use climbs slightly to 1.9 million bales. Current estimates put Mexican mill consumption at 1.9 million bales for the 2010 marketing year

Cotton imports grew 182,000 bales to 1.5 million during the 2009 marketing year. The U.S. should continue to be the main supplier, accounting for practically 100% of cotton imports. Due to the fragile economic outlook and the recovery in Mexico's production, imports are expected to fall slightly during the 2010 marketing year.

Indonesia

Indonesian cotton production was estimated to reach 30,000 bales in the 2009 marketing year (Figure 117). Current projections show this number up only slightly for 2010 due to fierce competition from other crops such as corn or rice.



Figure 117 - Indonesia Cotton Supply & Use

As the main contributor to Indonesian export revenue with a 13% share and a labor intensive industry absorbing approximately 1.2 million workers, the textile industry continues to receive attention from the Indonesian government. With a total capacity of 7.9 million spindles and 110,000 rotors. Indonesian textile mills are running at 70% of capacity. The global economic crisis significantly impacted the Indonesian textile and textile product industry. The United States has been the primary destination for Indonesian textile and textile product exports with a 38% market share. followed by the EU (19.4%), the Middle East (9.7 %), and Japan (5%). Given the current economic situation, the Indonesian cotton consumption in marketing year 2010 is estimated to remain virtually unchanged at 2.1 million bales. The same holds true for imports, also estimated at 2.1 million bales for the 2010 marketing year.

Vietnam

It is unlikely that Vietnam will see an expansion in their cotton growing area in the next cotton crop or even the foreseeable future. Rising food prices will encourage farmers to switch to food crop production rather than growing cotton. Irrigated cotton areas continue to decline in the face of strong competition from the more lucrative corn, beans and vegetable crops. For the 2009 marketing year, production stands at 13,000 bales with no change expected for the 2010 crop (Figure 118).



Figure 118 - Vietnam Cotton Supply & Use

Vietnam's domestic consumption continues to increase to meet strong demand from the expanding textile industry. In March 2008, Prime Minister Nguyen Tan Dung commenced Vietnam's strategy for the development of the garment and textile industry to 2015 and 2020. Included are ambitious targets to grow the industry at increased production rates by 16-18% from 2008 to 2010 and 12-14% from 2011 to 2020. There are also provisions to increase local cotton production through capital investments in irrigation and other inputs.

Estimates place 2009 marketing year mill use at 1.4 million bales, up 103,000 from 2008. Growth continues into the 2010 marketing year with consumption climbing 102,000 bales to 1.5 million bales. In order to keep pace with this rising cotton demand, Vietnam will remain a net importer for the foreseeable future, with the U.S. being a significant supplier. For the 2009 marketing year, Vietnam will import 1.4 million bales and estimates remain at that level for the 2010 marketing year.

Bangladesh

Marketing year 2009 cotton production in Bangladesh totaled 44,000 bales (Figure 119). Cotton was a relatively less desirable crop in terms of profitability vis-à-vis competing crops. Cotton production is vulnerable to excessive rainfalls/floods and pest infestations which are common in Bangladesh. With that in mind, production for the 2010 marketing year remains unchanged at 44,000 bales.





The Bangladesh textile industry, the largest manufacturing sub-sector of the industrial sector, provides employment to 5.5 million people (including over 2.5 million in the ready-made garment units). It contributes 10% of the country's GDP, 40% manufacturing value and 77% of export earnings. Bangladesh currently has 341 spinning mills, 400 weaving mills, 310 dyeing and finishing mills, 800 knitting and knit dyeing mills and 4,500 garment factories. Increasing demand from the rapidly growing private sector spinning
mills and large imports are contributing to the escalation in cotton consumption. Marketing year 2009 mill use increased to 4.0 million bales and continued growth is seen in the 2010 marketing year with estimates topping 4.2 million.

As a result of increasing demand, raw cotton imports have steadily grown. A decade ago, Bangladesh imported 1.0 million bales of cotton. Since that time, imports have increased to an estimated 4.0 million for the 2009 marketing year and further expand in 2010 to roughly 4.2 million.

United States Trade

For the 2009 marketing year, U.S. exports of raw cotton are estimated at 11.6 million bales (Figure 120), down 1.7 million from 2008. Exports recover in the 2010 marketing year with projections of 12.1 million bales. The reliance of the U.S. cotton market on exports has increased dramatically over the past decade as the domestic textile industry has contracted. It is estimated that exports will constitute roughly 77% of total use for the 2009 marketing year.



Figure 120 - United States Cotton Supply & Use

Customers of U.S. exports have changed in recent years. While Mexico remains one of the top customers, China, Turkey, and Indonesia have emerged as significant buyers (Figure 121).

Top U.S. Raw Cotton Export Destinations

2000		2009YTD	
Country	(000 480-Lb. Bales)	Country	(000 480-Lb. Bales)
Mexico	1,819	China	1,965
Turkey	613	Turkey	1,196
Indonesia	541	Mexico	1,116
Taiwan	407	Thailand	431
Japan	383	Indonesia	379
Hong Kong	297	Vietnam	319

Figure 121 - Top U.S. Raw Cotton Export Destinations

World Trade

In the 2009 marketing year, world cotton trade climbed roughly 4 million bales to 34.2 million bales from the previous season due to improvement in the global economy (Figure 122). Current estimates put 2010 marketing year world cotton exports at 35.6 million bales, up 1.3 million from the previous year. As previously discussed, U.S. exports are projected to increase to 12.1 million bales in the 2010 marketing year. India and Uzbekistan are also expected to expand exports.



Figure 122 - World Cotton Exports

China's imports should grow along with some of the other traditional Asian consuming and importing markets (Figure 123). With the larger world crop, availability of all grades of cotton should not be a concern.



Figure 123 - World Cotton Imports

Examining the world trade-to-mill use ratio for 2009/10 shows a climbs to 30% from 27% last year (Figure 124).





World Ending Stocks

Ending stocks are estimated to decline by 900,000 bales while the stocks-to-use ratio is estimated to fall by roughly 2 percentage points to 43% (Figure 125). The 3 largest producers – China, India, and the U.S. – are also significant holders of cotton stocks. All

are expected to reduce stocks during the 2010 marketing year. In the case of China and India, various government programs can play a major role in overall stock levels.



Figure 125 - World Cotton Ending Stocks

The overall balance sheet remains supportive as prices as the projected world stocks-to-use ratio falls to 43.2% for the 2010 marketing year (Figure 126). This represents the tightest situation since the end of the 1994 marketing year.



Figure 126 - World Cotton Stocks vs Price