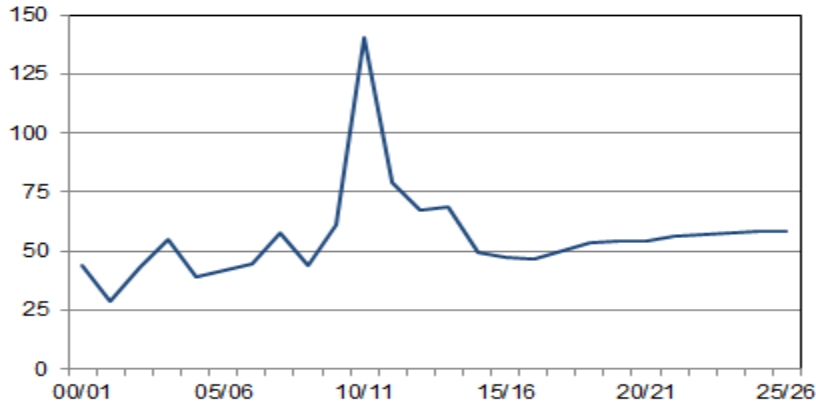


# Cotton

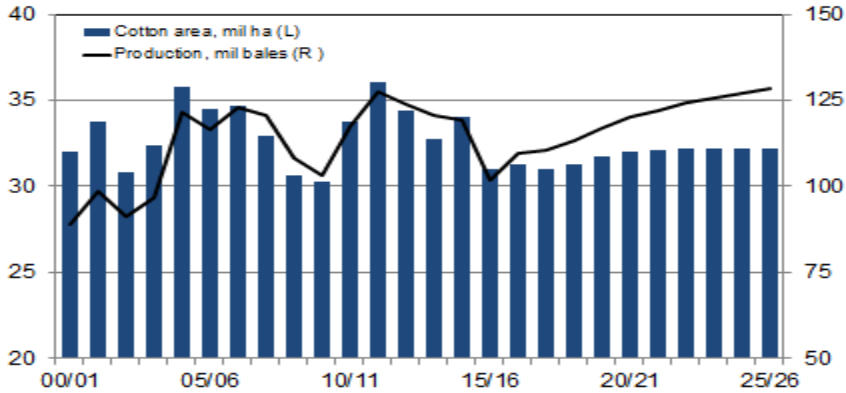
- Aside from the Chinese import spike, cotton trade has been stable and is expected to remain so throughout the baseline. Since the end of the Chinese inventory buildup, world cotton prices have returned to lower levels that will still be able to sustain production at required levels. Cotton prices are expected to rise only gradually over the projection period.
- The abnormally high levels of Chinese imports from 2011/12 through 2013/14 allowed China to quadruple ending stocks. That country now holds approximately 60% of global inventories. However, stock accumulation has ended, and China's imports have dropped dramatically, returning global cotton markets to a more-typical balance, and easing pressure on cotton prices.
- China now adds even more uncertainty to the cotton market. Whether they continue to hold the current high stocks will determine if their imports stabilize or fall in the next few years, increasing the risk for falling prices.
- Responding to lower prices, global cotton area fell by an estimated three million hectares in 2015/16. Furthermore, global average yields are estimated to be 6% lower this year, resulting in a 17 million bale drop in cotton production. The area decline occurred primarily in China and India, and to a lesser extent, the U.S.
- Slowly increasing cotton prices will not be sufficient to induce a substantial increase in area. Because of limited arable land, emerging environmental problems like erosion and competition from grains and oilseeds for land, cotton area will remain well below the highs of the past few years.
- Technology is vital to increasing cotton production to meet expanding global needs. Adoption of higher-yielding varieties and genetic and agronomic improvements will be the basis of increasing production in the future.
- The U.S. and India will see increased competition from other crops that will constrain cotton area even below the level of 2015/16 throughout the outlook. Stabilizing grain and oilseed prices will keep those crops competitive with cotton.
- Global cotton mill use is increasing, following a substantial decline from the high point from 2006/07 to 2011/12. Declining mill use by China is the primary factor behind the previous decline, but that source of demand is leveling off and is expected to expand in the last half of the outlook.
- Cotton demand will increase in other countries, as well. Along with China, India, Turkey, Pakistan, and Bangladesh are projected to be significant sources of demand growth. Textiles industries are shifting from developed nations to developing regions with cheaper labor, and the U.S. textile industry is undergoing a long-term decline.
- The outlook is for small increases in per capita cotton consumption, an indication that a consistently expanding global economy, and especially income growth in developing regions, will contribute somewhat to clothing and textile demand. However, population will continue to be the primary driver.

### Without Trade Shocks Cotton Prices to Remain Lower

*Cotton adjusted world price, cents/lb*

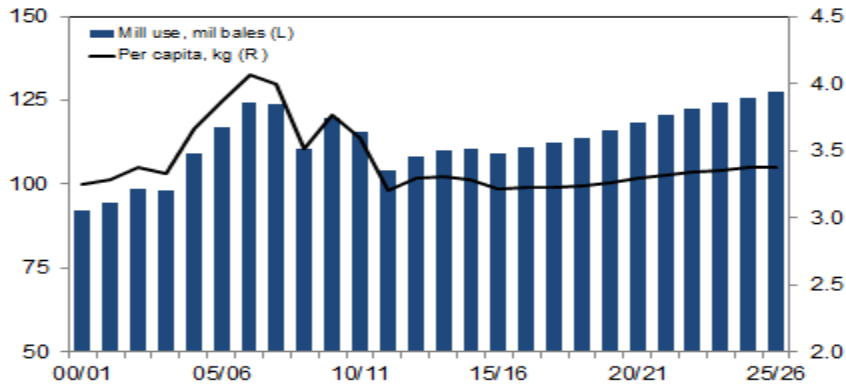


### Less Area Required After China Stock Buildup



### Cotton Demand Will Edge Up With Population Growth

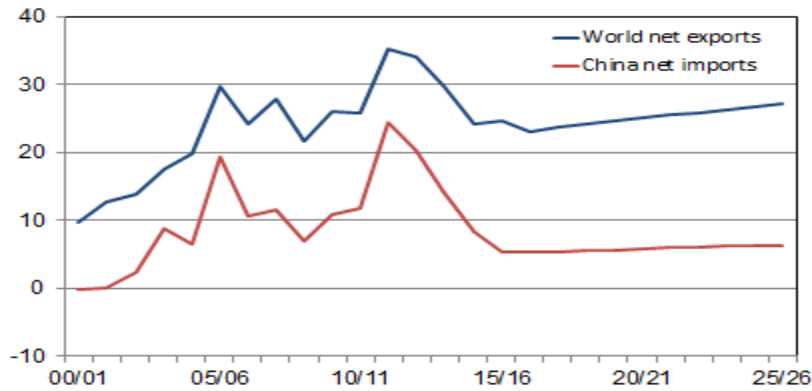
*Global cotton mill use*



- While the increase in cotton imports from 2011/12 through 2013/14 has not been sustained, China is expected to remain a major force in cotton markets even though that country's mill use has declined. However, Bangladesh is expected to regain the position as the largest cotton importer over the next ten years and along with Pakistan and Turkey will account for a large proportion of the expected increase in cotton imports as they grow their domestic textiles industries.
- Approximately 20% of global cotton production is expected to be sold on the world market over the next ten years, similar to the proportion traded prior to the previous run-up in Chinese imports.
- The largest sources of cotton exports are Australia, Brazil, India, and the U.S, which together account for 85% to 90% of global sales. The U.S. will remain the largest exporter over the projection period but the growth in trade will be met largely by Brazil and India.
  
- Nearly all the inventory accumulation since 2011/12 occurred in China. As such, those reserves are not available to the global markets and will not buffer any supply shortages that might occur outside of China.
- It is difficult to determine when production shortfalls and accompanying high prices will occur. Therefore, it is equally difficult to predict if and when China will draw down its stocks.
- Ending stocks by the rest of the world are similar relative to demand as they have been historically and will still be able to absorb a moderate short-term supply decline in the future. Therefore, the world cotton market is not expected to be more volatile from supply or demand shocks outside of China. China's stock buying strategy removed similar volatility from its domestic market.

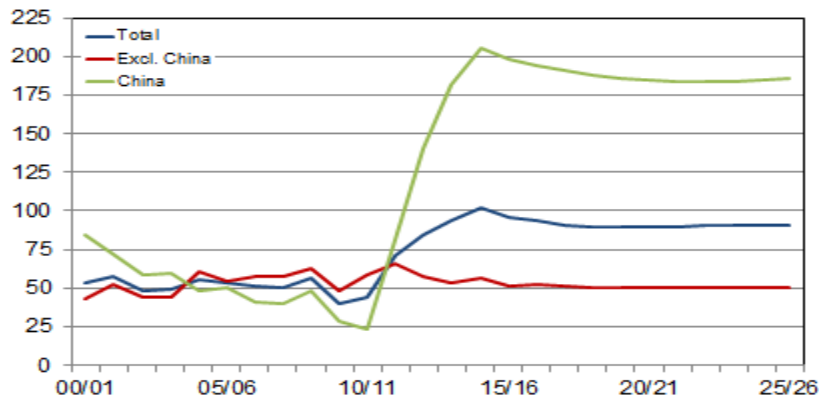
### Less Chinese Dominance in Cotton Markets Ahead

Cotton net trade, mil. bales



### Inventories Will Keep Pace With Mill Use

Cotton stocks-to-use, percent



## World Cotton Supply & Utilization

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
					(Million hectares)						
<b>Area Harvested</b>	35.8	34.5	34.7	32.9	30.6	30.2	33.7	36.1	34.4	32.8	34.0
					(Kilograms per hectare)						
<b>Yield</b>	740	734	772	798	770	744	760	769	784	799	762
					(Million bales)						
<b>Supply</b>	188.7	206.8	209.9	212.3	193.2	193.2	192.7	213.2	233.3	242.3	246.6
Production	121.5	116.3	123.0	120.6	108.3	103.4	117.6	127.4	123.9	120.4	119.2
Beginning stocks	48.4	61.0	61.9	63.3	62.8	62.7	47.8	51.3	74.4	91.7	103.1
Net imports	18.8	29.5	25.0	28.4	22.2	27.1	27.3	34.5	35.0	30.1	24.4
<b>Utilization</b>	170.2	178.9	187.6	186.6	173.1	167.4	166.8	178.5	200.1	213.0	222.5
Mill & other	109.2	117.0	124.3	123.8	110.4	119.6	115.5	104.1	108.4	109.9	110.4
Ending stocks	61.0	61.9	63.3	62.8	62.7	47.8	51.3	74.4	91.7	103.1	112.1
<b>Net exports</b>	19.7	29.7	24.1	27.8	21.7	25.9	25.8	35.1	34.0	29.7	24.1
<b>Unaccounted</b>	-1.2	-1.8	-1.7	-2.1	-1.5	-0.1	0.0	-0.4	-0.8	-0.4	0.1
<b>Total Demand</b>	188.7	206.8	209.9	212.3	193.2	193.2	192.7	213.2	233.3	242.3	246.6

## World Cotton Supply & Utilization

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
					(Million hectares)						
<b>Area Harvested</b>	31.0	31.3	31.0	31.2	31.7	32.0	32.1	32.2	32.2	32.2	32.2
					(Kilograms per hectare)						
<b>Yield</b>	713	762	775	789	803	816	828	839	849	859	869
					(Million bales)						
<b>Supply</b>	238.3	236.9	237.6	239.6	243.6	248.7	253.7	258.3	262.5	266.4	270.0
Production	101.6	109.5	110.3	113.2	116.9	120.0	122.2	124.1	125.6	127.1	128.4
Beginning stocks	112.1	104.3	103.4	102.2	102.2	103.7	106.0	108.3	110.6	112.6	114.4
Net imports	24.7	23.1	23.8	24.2	24.6	25.0	25.5	25.9	26.3	26.8	27.2
<b>Utilization</b>	213.5	214.3	214.3	215.9	219.6	224.2	228.7	233.0	236.8	240.2	243.4
Mill & other	109.2	110.9	112.1	113.7	115.9	118.2	120.4	122.4	124.2	125.9	127.4
Ending stocks	104.3	103.4	102.2	102.2	103.7	106.0	108.3	110.6	112.6	114.4	116.0
<b>Net exports</b>	24.7	23.1	23.8	24.2	24.6	25.0	25.5	25.8	26.3	26.8	27.2
<b>Unaccounted</b>	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
<b>Total Demand</b>	238.1	237.3	238.0	240.0	244.1	249.1	254.1	258.7	262.9	266.9	270.5

## Cotton Area Harvested

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
	(Million hectares)										
Argentina	0.4	0.3	0.4	0.3	0.3	0.4	0.6	0.5	0.4	0.6	0.5
Australia	0.3	0.3	0.2	0.1	0.2	0.2	0.6	0.7	0.4	0.4	0.2
Bangladesh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	1.2	0.9	1.1	1.1	0.8	0.8	1.4	1.4	0.9	1.1	1.0
China	5.9	5.4	6.0	6.2	6.1	5.3	5.3	5.5	5.3	4.8	4.4
EU-28	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.4
India	8.8	8.9	9.2	9.4	9.4	10.3	11.1	12.2	12.0	11.7	12.7
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	3.2	3.1	3.3	3.0	2.9	3.0	2.8	3.0	3.0	2.9	3.0
Turkey	0.7	0.6	0.6	0.5	0.3	0.3	0.3	0.5	0.4	0.3	0.4
United States	5.3	5.6	5.2	4.2	3.1	3.0	4.3	3.8	3.8	3.1	3.8
Uzbekistan	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.3	1.3
Rest of world	8.1	7.6	7.0	6.2	5.8	5.2	5.6	6.7	6.5	6.2	6.4
<b>World total</b>	<b>35.8</b>	<b>34.5</b>	<b>34.7</b>	<b>32.9</b>	<b>30.6</b>	<b>30.2</b>	<b>33.7</b>	<b>36.1</b>	<b>34.4</b>	<b>32.8</b>	<b>34.0</b>



## Cotton Area Harvested

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
	(Million hectares)										
Argentina	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
Australia	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Bangladesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2
China	3.4	3.5	3.6	3.8	4.0	4.1	4.2	4.3	4.3	4.2	4.2
EU-28	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
India	11.8	11.5	11.4	11.3	11.4	11.4	11.4	11.3	11.3	11.4	11.4
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0
Turkey	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
United States	3.3	3.2	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Uzbekistan	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Rest of world	6.1	6.1	6.1	6.2	6.4	6.5	6.5	6.6	6.6	6.6	6.6
<b>World total</b>	<b>31.0</b>	<b>31.3</b>	<b>31.0</b>	<b>31.2</b>	<b>31.7</b>	<b>32.0</b>	<b>32.1</b>	<b>32.2</b>	<b>32.2</b>	<b>32.2</b>	<b>32.2</b>

## Cotton Trade

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
	(Thousand bales)										
<b>Net exporters</b>											
Argentina	-12	-105	-143	-167	-46	-21	288	376	223	187	375
Australia	1,997	2,884	2,129	1,219	1,201	2,112	2,500	4,640	6,168	4,852	2,393
Brazil	1,345	1,664	785	2,067	2,689	1,839	1,297	4,763	4,242	2,083	3,886
EU-28	-1,565	-445	-555	-47	2	74	-56	632	557	732	764
India	-378	3,275	4,410	6,900	1,560	6,070	4,800	10,480	6,574	8,586	2,973
United States	14,407	17,645	12,940	13,622	13,261	12,037	14,367	11,695	13,016	10,517	11,234
Uzbekistan	3,950	4,800	4,500	4,200	3,000	3,800	2,650	2,500	3,200	2,700	2,450
Total net exports	19,744	29,718	24,066	27,794	21,667	25,911	25,846	35,086	33,980	29,657	24,075
<b>Net importers</b>											
Bangladesh	2,250	2,450	3,250	3,600	3,800	4,000	4,250	3,400	5,000	5,300	5,400
China	6,355	19,248	10,500	11,468	6,912	10,880	11,857	24,478	20,280	14,096	8,213
Indonesia	2,180	2,180	2,380	2,680	2,380	2,685	2,490	2,495	3,132	2,984	3,338
Pakistan	1,198	1,327	2,088	3,638	1,560	849	763	-260	1,350	690	385
Turkey	3,262	3,285	3,726	2,897	2,783	4,244	3,204	2,082	3,474	4,042	3,439
Rest of world	3,535	999	3,026	4,081	4,727	4,482	4,724	2,285	1,778	3,011	3,636
Total net imports	18,780	29,489	24,970	28,364	22,162	27,140	27,288	34,480	35,014	30,123	24,411
Residual	964	229	-904	-570	-495	-1,229	-1,442	606	-1,034	-466	-336

