

**Estimated Effects of Chinese Cotton Reserve Policy Changes on the U.S. and China
Cotton Markets**

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Briefing Paper

ICAC – BP14 – 01

Released May 2014

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China's policies regarding cotton and textiles impact global cotton markets because China is a large component of those markets. China recently changed its cotton reserve policy with the intent to decrease its reserve stocks, the effects of which are important to policy makers, producers, commodity traders, and researchers in many countries. The purpose of this analysis was to estimate the impacts of the recent Chinese reserve policy change on current and future cotton markets.

Background

Aimed at supporting domestic cotton farmers and fostering rural development, the government of China designed and implemented a price support policy, which allows the government to purchase domestically produced cotton at above world market prices. The stockpiling program has led to domestic cotton prices in China that are higher, on average, than world price. As a result of these and other policies, imports of raw cotton and yarn into China have increased in recent years. It is estimated that China currently holds 12.8 million tons (58.8 million bales) of cotton in reserve, which accounts for about 60 percent of global ending stocks and sufficient stocks for more than a year of China's domestic consumption.

The Chinese government recently announced that it would lower its reserves by cutting the price of domestic cotton being sold from its state reserves. According to the China National Cotton Reserves Corporation, beginning April 1, 2014, mills can bid as low as 17,250 Yuan per ton (\$1.27/lb) for standard-quality cotton in the daily state auction, below the current floor price of 18,000 Yuan per ton (\$1.33/lb) fixed in November², a decrease of 4%, and will allow spinners to purchase one bale of import reserve for every 3 bales purchased from Xinjiang warehouses. However, how much local cotton will be offered in its daily sale is not revealed by the

² See Thomson Reuters Eikon (2014) for more detail on the China's cotton reserve policy changes.

government. This move should put downward pressure on imports and world price, but the question is the magnitude of the effect.

Methods

The Global Fibers Model³ at the International Center for Agricultural Competitiveness at Texas Tech University was used to provide estimates of the impacts of the lower cotton reserve price on the cotton markets over the next 10 years. This partial equilibrium model representing the world fiber markets incorporates supply and demand models for the United States and 23 other major producing and consuming countries and regions. It is used to perform analysis on the expected behavior of natural fiber markets to potential changes in trade, technological, economic and policy factors, and evaluate the impacts of these changes on the 24 country/regional cotton and textiles markets.

First, the model was run under the current situation (or baseline); i.e., under the projected global conditions for the next 10 years assumed for the 2014 FAPRI baseline projections. Next, a second scenario was performed, where China lowered the starting auction price for cotton from 18,000 Yuan per ton to 17,250 Yuan and all other conditions remained the same as in the baseline. The projected outcome of the lower cotton reserve price was then compared with the baseline scenario to determine the economic impact of China's cotton reserve policy change. The impacts of the policy on cotton production, consumption and trade for the U.S. and China were estimated by comparing baseline projections to their respective quantities with China's new cotton reserve policy.

³ See Pan and Hudson (2011) for more detail on the Global Fibers Model.

Estimation Results

Results are reported as percentage annual changes over the period 2014/15 – 2021/22 in terms of changes from baseline estimates. Table 1 and 2 present the results of cotton production, consumption and trade of the two scenarios for the U.S. and China, respectively.

In the United States, the domestic cotton farm price (bottom of Table 1) was projected to be higher by 2.67% from China's policy change in the first year, but lower in each of the succeeding years. The higher U.S. price in the first year was the result of a small decrease in U.S. stocks and a small increase in U.S. exports that year, but the effects of the policy change on U.S. stocks and exports dissipated over time and effects on production and consumption were negligible over the entire period. Overall, China's policy change as implemented showed little impact on the U.S. cotton market over the 10-year projection period.

In China's cotton market (Table 2), the recent move of cutting cotton reserve price was projected to lower ending stocks by 0.11% in 2014/15 and continue the drawdown for the rest of the projection period, but at a slower pace. China's cotton production and consumption were both negatively impacted by this policy, as expected; they were projected to decline by 0.35% and 0.03% per year, respectively, through 2021/22. China's cotton imports still increased through the projection period, but at a slower rate.

Conclusion

This analysis suggests that the recent price decline of China's reserve cotton will have minor impacts on China's cotton production, consumption, ending stocks and imports. Its impacts on the U.S. cotton market are also likely to be negligible. This may be due to the fact that China's support price reduction is small, and the beginning support price was relatively high

compared to existing world prices. A larger support price reduction could produce more dramatic market results.

Table 1. Estimated Effects of China's Lower Cotton Reserve Price on the U.S. Cotton Market

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Production	----- 1,000 bales -----								
Current price	14480.64	14959.56	15338.32	15624.96	15883.72	16093.86	16374.64	16509.29	15658.12
Lower price	14480.64	15032.52	15354.10	15618.55	15880.34	16090.43	16371.71	16506.93	15666.90
% change	0.00	0.49	0.10	-0.04	-0.02	-0.02	-0.02	-0.01	0.06
Consumption	6641.15	7123.95	7490.35	7961.38	8004.73	7929.97	7850.30	7920.32	7615.27
Lower price	6589.84	7124.81	7493.99	7963.20	8006.64	7931.26	7851.30	7920.92	7610.25
% change	-0.77	0.01	0.05	0.02	0.02	0.02	0.01	0.01	-0.08
Ending Stock	3612.24	3541.85	3479.25	3320.75	3341.51	3240.05	3135.36	3094.33	3345.67
Lower price	3561.32	3542.71	3482.75	3322.96	3343.86	3241.80	3136.75	3095.52	3340.96
% change	-1.41	0.02	0.10	0.07	0.07	0.05	0.04	0.04	-0.13
Exports	10839.52	11447.88	11389.84	11142.85	11199.76	11505.40	11764.39	11724.33	11376.75
Lower price	10890.83	11469.06	11402.84	11138.12	11196.67	11503.03	11762.21	11722.75	11385.69
% change	0.47	0.19	0.11	-0.04	-0.03	-0.02	-0.02	-0.01	0.08
Price	----- US cents/lb -----								
Current price	70.65	69.92	72.05	76.13	72.57	74.70	76.51	75.49	73.50
Lower price	72.54	69.70	71.92	76.05	72.48	74.63	76.45	75.44	73.65
% change	2.67	-0.32	-0.19	-0.10	-0.12	-0.09	-0.07	-0.06	0.22

Table 2. Estimated Effects of China's Lower Cotton Reserve Price on the China Cotton Market (all quantities are in 1,000 bales)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Production									
Current price	30202.16	31327.06	31200.25	31728.03	32434.17	32979.30	32161.61	32122.13	31769.34
Lower price	29759.85	31215.88	31118.35	31665.45	32382.82	32935.11	32123.63	32088.19	31661.16
% change	-1.46	-0.35	-0.26	-0.20	-0.16	-0.13	-0.12	-0.11	-0.35
Consumption									
Current price	97460.24	99618.79	97992.42	96501.89	95462.46	94152.31	93257.76	92213.88	95832.47
Lower price	97362.65	99578.62	97964.18	96480.60	95446.41	94139.78	93248.12	92206.44	95803.35
% change	-0.10	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.03
Ending Stock									
Current price	56004.10	54539.58	52514.41	50499.94	48520.11	46508.19	44318.51	42211.03	49389.49
Lower price	55942.18	54518.10	52501.39	50490.42	48512.50	46501.68	44312.91	42206.06	49373.15
% change	-0.11	-0.04	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.03
Imports									
Current price	9647.49	12553.44	12513.81	12516.07	12780.38	12900.34	14830.81	16011.51	12969.23
Lower price	9992.20	12686.38	12588.96	12570.39	12825.20	12939.62	14865.65	16043.60	13064.00
% change	3.57	1.06	0.60	0.43	0.35	0.30	0.23	0.20	0.84