

**CHINA'S COTTON POLICY: NEW DIRECTIONS IN 2014**

Stephen MacDonald

U.S. Department of Agriculture, Economic Research Service

China has signaled that 2014 will be a crossroads year for its cotton policy. Detailed plans regarding its new policies are not available, but it is clear that after 3 years of supporting its cotton farmers largely through fixed price supports it will begin transitioning to less distortionary policy instruments. Given China's long-standing pattern of relatively gradual policy change and settling policy through experimentation, China is unlikely to undertake radical policy changes that result in large changes to the size of its cotton reserve stocks in 2014. But changes in China's cotton policy in 2014, and in future years will likely be oriented in part towards reducing China's costly stockpiles. This paper will outline the expected direction on China's cotton policy in 2014 based on information directly disseminated by China's government, information from industry sources about plans the government has not publicly disseminated, and assessments by USDA's Cotton Interagency Commodity Estimates Committee (ICEC) on how policy-makers in China will respond to the constraints facing them and the response of the rest of the world to their policy changes.

**Introduction**

Until 2011, the intervention of China's government in its domestic cotton market was relatively limited. A reorientation of China's cotton policy was among the many profound changes China's economy experienced in the decades between 1979 and its accession to the World Trade Organization (WTO) in 2001. In 1999 China's cotton policy transitioned from a system of government procurement from farmers at fixed prices to a far more market-oriented system. Transactions between farmers and private buyers were legalized, and the government stepped back from maintaining a fixed cotton price for each marketing year. Similar to its policy for a wide range of commodities, the focus of the government's policy shifted to one of limiting volatility, using a system of reserve stocks that it would increase through purchases to slow price declines, and reduce through open market sales to slow price increases. Foreign trade was also liberalized, and through calibrated distribution of quotas for cotton imports at tariffs much more favorable than the 40-percent maximum, WTO-bound rate, textile mills have typically faced a domestic cotton price about 25 percent above the world price. With strong investment in mill capacity and infrastructure, China's share of world cotton consumption rose despite this domestic price premium, from 22 percent in 1998 to 42 percent in 2009 (fig. 1). During that time, China became the world's largest importer of cotton, in addition to its long-standing status as the world's largest consumer and producer.

In 2010, shifts in world and domestic markets overwhelmed the ability of China's government to stabilize cotton prices, which rose sharply to unprecedented heights. A few years earlier, China had responded to surging world grain prices by sharply limiting grain exports, extending price guarantees to additional grains in addition to rice, raising guaranteed prices for grains, and offering direct subsidies to grain producers. In March 2011, China announced a guaranteed price for cotton, implemented—as were minimum grain prices—by purchasing on China's domestic markets. Purchases for China's state reserve

were to be undertaken whenever the price of cotton fiber fell below 19,800 RMB/ton during a period extending from September to the following March. While the state's purchases were not directly from farmers—who market their cotton not as fiber but as unginced seedcotton—the conditions of sales to the reserve included demonstration that the cotton had been purchased from farmers at the seedcotton-equivalence of the 19,800 RMB/ton fiber price.

Between 2003 and 2009, the average annual domestic spot price of cotton in China ranged between about 12,000 and 16,000 RMB per ton. That same time period saw 30-40 percent increases in the world market price of grains and a wide variety of other commodities. While cotton prices had been lagging in the magnitude of their price increases through 2009, by the time China announced its 2011 reserve buying price, domestic spot prices for cotton were peaking with monthly averages in excess of 30,000 RMB/ton. Under those circumstances, it may have seemed plausible that a 19,800 RMB/ton support level would not be significantly disruptive.

However, this policy has been extremely disruptive both within China and in world cotton markets. The price of cotton outside of China is now closer to 2006-09 levels than to its 2010 peak; textile mills in China now pay about 60 percent more than the world price and consume substantially less as a result. Large net purchases by China's reserve authorities have resulted in stock levels that have dismayed many. While China raised its support price further in the 2012 marketing year (MY) and maintained it at this increased level in the 2013 MY, policy-makers in 2013 also began signaling that the policy was regarded as increasingly unsustainable. The 2014 MY will see significant changes in China's cotton policy, changes which are only now taking shape publically, and are likely to shift depending on the outcomes of the initial decisions and on independent developments in world markets.

### **The Dilemma Between Supporting Textiles and Supporting Farmers**

China's transformation since 1979 has many dimensions. One of which is that it is no longer a rural, agriculturally-based economy, and another is that while wages and well-being have risen substantially for hundreds of millions of its citizens, the distribution of China's income has become increasingly unequal. Policy-makers' responses to these developments have included a shift from taxing agriculture for the benefit of the rest of the economy to subsidizing it. With rural incomes lower than urban incomes, agricultural subsidies offered an opportunity to address problems with both the absolute and relative well-being of many farmers. Because of the central role of grain production in Chinese agriculture, and policy-makers long-standing focus on food security and self-sufficiency, significant subsidies were first offered to grain producers, but in 2011 were extended to cotton producers indirectly through price supports (Gale, 2013).

With China's cost of cotton production rising even faster than that of grain production—in large part due to the high labor-share of its production costs—raising farmers' revenues from cotton was one approach to expanding the share of the rural population assisted by the government. However, an impediment to the success of China's cotton policy is that its rising cotton production costs have not been matched by the rest of the world. Since 2011, the world has demonstrated a sustained willingness to supply cotton at prices well below China's 19,800-20,400 RMB/ton price level. In U.S. dollar terms, China's reserve buying has been triggered at prices of \$3,100-3,300 per ton, or 142-149 cents per pound. During this

time, cotton's annual world price ranged between \$1,900 and \$2,200 per ton, or 85-100 cents per pound (fig. 2).

Several consequences have resulted from this price gap, creating the dilemmas that now face China's policy-makers as the 2014 marketing year approaches. One is that textile mills in China have found it increasingly difficult to compete with mills outside of China in spinning cotton yarn. China's share of world cotton consumption has fallen from its 2009 peak of 42 percent to an estimated 33 percent in 2013. Another is that ending stocks of cotton have risen to unprecedented levels. These stocks are unprecedented not only for a given country, but also for the entire world. Finally, China's large purchases for its reserve stocks—which include substantial purchases from foreign sources as well as domestic—have supported world cotton prices above the levels that would have occurred in the absence of this policy.

With its reliance on high prices to support its cotton farmers, China has found itself forced to choose between supporting its cotton farmers or permitting its textile industry to face world competition unhindered by a high de facto tax. The current high cost of producing cotton in China means that if China tries to remove the damaging price distortion by shifting to a direct farm subsidy it will have to choose between offering a high direct subsidy or offering a lower subsidy that will result in a potentially large number of farmers exiting the cotton sector.

### **Impact of Policy on Textile Industry**

The first step in anticipating the impact of changes in China's cotton policy is understanding the impact of its 2011 shift. The sharp increase in the price farmers receive for cotton has not resulted in a sharp increase in production: China's cotton output in 2011-13 (MY) averaged only 3 percent higher than during the previous 3 years. However, China's mill consumption in each of those years was 24-36 percent below its 2009 (MY) level, and the cumulative decline in consumption since then of 44 million bales nearly matches the increase in ending stocks. Clearly, understanding the impact of China's cotton policy on its textile industry is crucial to understanding its impact on cotton markets.

China's textile industry is not solely reliant on cotton, nor is it solely reliant on domestic spinning for its cotton yarn (MacDonald, et al., 2013). China's overall textile output, exports, domestic retail sales, and consumption of textiles have maintained their pre-2011 position despite the high premium for cotton within China. But this has been at the expense of a shift away from cotton to synthetic fibers to some extent and a sharply higher trade deficit for China in cotton yarn. World growth in cotton fiber consumption trended downward between 2006 (MY) and 2011 (MY), but grew at stronger than average rates in 2012 (MY) and 2013 (MY). However China's textile industry has not shared in this expansion and its share of world cotton consumption has remained relatively low.

Other factors affect the competitiveness of China's spinning, and exchange rates are prominent among them. Since China has begun permitting its exchange rate to appreciate in 2005 it has risen more than 25 percent in nominal terms with respect to the dollar, and more than 30 percent in inflation-adjusted terms. But in inflation-adjusted terms, China's appreciation with respect to the dollar mirrored somewhat similar appreciations for countries as varied as India, Vietnam, Brazil, and Bangladesh. Compared with its

competitors in the world market for cotton yarn, China's exchange rate has only risen 20 percent in real terms since 2005. Furthermore, China's share of world cotton consumption was rising during much of this period of appreciation.

The last time China's cotton stocks exceeded 100 percent of its use was at the end of the 1990s, and while reduced prices for farmers and reduced domestic production played a role in reducing stocks, a sharp rise in consumption was the largest factor bringing stocks back down to levels similar to long-term average level of about 50 percent. And a key factor driving that increase in consumption was China's accession to the WTO and the liberalization of world textile markets with the phase-out of the Multifibre Arrangement. But, no significant changes in global textile trade policy are on the horizon, and China's real, consumption-weighted currency expected to appreciate only slightly in 2014 (IHS Global-Insight, 2014, and FAS/USDA, 2014). China's relative cotton price is likely to be the key factor shifting China's cotton consumption in the next few years.

Because of the recent appreciation in China's currency, even returning its domestic cotton prices to their pre-2011 relationship with world prices would probably not allow China to return to its peak share of world cotton consumption. However, such a change would allow a substantial recovery in China's share, up to 38 percent from the 33 percent expected in 2013 (MY) based on the past relationship between share and domestic cotton prices and exchange rates.<sup>1</sup> It is unlikely that China would undertake such a change in a single year, but it is indicative of the important role that interactions between cotton policy and the textile industry can be expected to have as its cotton policy evolves.

### **China's 2014 Cotton Policy Takes Shape**

The level and nature of support for cotton in China is driven by a constellation of policy decisions concerning both agriculture and the rest of the economy (Table 1). Some of these policies are far removed from the cotton sector, and are unlikely to change, and the government's intention for some policies specific to cotton are unknown. But the nature of a few policy shifts can be discerned, and these have been used as a starting point for examining the impact of alternative decisions regarding other policies likely to change in 2014.

The policies affecting cotton in China can be divided into three groups: production, reserve management, and trade. On one level, the three are interrelated, but in other respects, production policy can be considered more distinct. One distinction is timing: production is strongly seasonal, and irrevocable decisions must be undertaken early in the calendar year. Reserve management policies during harvest affect producers, but their production decisions in that year will be in the past and cannot be influenced then. Consumption of cotton is much less seasonal than production, and the reserve and trade management policies that determine price can be initiated at any point in the marketing year.

Policy-makers' goals in introducing the price support policy in 2011 included improving the well-being of China's cotton producers and maintaining a degree of self-sufficiency. These goals have now been calibrated, with cotton production policy now more focused on maintaining incomes and output in the

---

<sup>1</sup> Based on the past (2005-13) relationship between this share and the relative domestic cotton price and an exchange rate-based index.

province of Xinjiang. Xinjiang's economic vitality and stability is a strategic concern of China's government, and cotton accounts for an unusually large share of the province's agricultural output. Since agriculture is a large share of its economy, supporting cotton in Xinjiang serves broader purposes. Xinjiang is also the largest producing province in China, and the relatively large size of its farms—particularly state farms included in the Xinjiang Production and Construction Corps—would facilitate the efficient targeting of support to recipients involved in cotton production.

China's other goals include permitting supply and demand to play a greater role in the determination of prices. This would mean reducing and eventually eliminating much of the distortion in the long-run relationship between the domestic price of cotton and the world price. Allowing markets to determine prices in China would have the added benefit of improving the profitability of cotton spinning, and halting the growth in China's cotton reserve. This would serve the broader goals of encouraging the growth of the economy and efficiently using the resources available to implement policy. The textile industry is no longer as economically prominent as it once was in China, but it remains a relatively large employer, and any sustainable cotton policy needs to account for its impact on textiles and apparel.

### **Production Policy**

The government has signaled that during 2014 (MY) the reserve buying program that supported prices nationwide over the last several years would not be continued in its current form. During a pilot year, a target price-oriented system of direct subsidies will be in place for producers in Xinjiang. The degree of support provided to producers in other provinces (the "Inland" provinces) has not been disseminated, but the implication of the announcements to date is that Inland producers will not receive direct subsidies. This would leave them only with the current smaller seed subsidies all cotton producers have been receiving since 2007 and any indirect support the government provides through its management of imports and reserve buying during the months that farmers market their crops.

Farmers market most of their cotton by January in China, although in exceptional years the beginning of January may see only half of the crop out of farmers' hands, with the bulk of the sales lagging through to the end of the month. Management of the cotton reserve includes rotation of older cotton for new crop cotton to maintain the average quality of the stored cotton, suggesting that some reserve purchases during the 2014 harvest will be necessary. But the prices that China's farmers receive—which for the Inland farmers without a direct subsidy will comprise their total returns for producing cotton—will be determined by the interaction of China's management of its reserve sales and import policy during the period of harvest sales.<sup>2</sup>

In 2014—as China begins decoupling and lowering its producer support—policy-makers will face a number of choices. One is the amount by which support will be reduced. Reports have circulated that producers in Xinjiang expect direct subsidies sufficient to give them returns equivalent to a price only slightly lower than was received in 2012 (MY) and 2013 (MY), around 19,500 RMB/ton (about 4 percent

---

<sup>2</sup> Note that the availability of credit for purchasing from farmers is provided by the government at preferential interest rates, is also a factor the government can manage to influence the market during harvest. Expectations of future policy will also have an effect, but because of the great uncertainty current policy likely has the greatest impact at any one time.

lower). For Inland producers, some conclusions can be drawn from the results of planting intentions surveys undertaken during December 2013, which show that about 15 percent less area will be planted than the year before. Based on past relationships between cotton prices and grain prices, and reported prices for grains, this suggest that inland farmers are expecting to receive about 15,000 RMB/ton, about 25 percent lower than the 2013 support price.

### **Reserve Management Policy and Trade Policy**

During the first year of the 2011-13 policies, reserve management authorities exclusively focused on purchasing, with 14 million bales or 42 percent of the crop purchased and retained. In 2012 (MY), purchases were even larger, but almost 20 million bales were sold from the reserves, and in 2013 (MY) perhaps 15 million bales will be sold. As the 2013 harvest approached, sales paused, remained suspended during the early portion of the harvest, but began again in November 2013. Sales will likely continue until at least July.

During 2011-13, reserve buying has been at 19,800-20,400 RMB/ton, per the stated objective of supporting cotton producers. The prices of reserve sales have ranged between 18,300 and 19,300 RMB/ton, or 5-10 percent below the purchase price. And during most of this time, the reserve sales prices have been less than 200 RMB/ton below spot prices in China. However, during November 2013-February 2014 reserve sale prices have been at their post-2010 lows, and have been 6-7 percent below spot prices.

As 2013 (MY) progresses, and into 2014 (MY), the reserve sale price will be a policy instrument that China can use to calibrate the gap between domestic prices and world prices and to calibrate the pace at which the reserve stocks change. Reserve sales are auctions, so policy-makers cannot directly dictate the price at which these sales occur, but through control of trade policy the demand for and the price of cotton sold at these auctions can be strongly influenced. The amount of imports permitted into China through sliding-scale quota, processing quota, and policy imports influences the demand for cotton made available from the reserve. During 2011 (MY) and 2012 (MY), unprecedented amounts of foreign cotton entered China through these channels, and combined with the imports under the WTO TRQ, total imports reached the equivalent of 57-65 percent of consumption, compared with a 22 percent median import-equivalence realized during the previous 5 years. In 2013 (MY), USDA estimates a significant decline in these non-TRQ imports is in the offing. In 2014 (MY), the level of China's non-TRQ imports, its reserve sale price, and the world price will all influence each other, and China's reserve management goals will be an important factor in determining where these variables find their equilibrium.

A constraint on China's policy-makers is another category of non-TRQ imports, those that enter China after paying the full 40 percent WTO-bound tariff imposed on imports not entering under its various quotas. During 2006-10, spot prices in China were typically about 20 percent below the full-tariff equivalent of the A Index, but in 2012 (MY) they averaged only about 2.5 percent lower for the year overall, and during some months even exceeded that price. The result was imports brought in with payment of the full 40 percent tariff. This has continued into 2013 (MY), and full-tariff imports in 2013 have already exceeded those for all of 2012: almost 1 million bales compared with about 700,000 bales in 2012.

The risk that China's policy-makers face is that by too rapidly reducing imports and ending stocks, they drive the world price down to the point where full-tariff imports, which are not subject to quota, rise and begin to offset reductions in imports entering through the combination of sliding-scale quotas and policy imports. Driving the world price lower also inhibits reduction of China's stocks by reducing the competitiveness of its textile industry due to an increasing gap between China's domestic price and the international price. Since China's domestic supply (beginning stocks + production) is fixed, lower imports are likely to reduce the consumption of cotton in China and raise ending stocks outside of China; this, in turn, would raise the share of the world yarn market captured by mills outside of China with access to the less expensive cotton. Thus, while limiting distribution of quotas at preferential tariffs (i.e., below 40 percent) is a way to divert mills in China to domestic supplies, its usefulness is bounded by the response of world markets.

### **A Baseline and Alternatives for 2014 Policy**

USDA forecasts are typically based on the assumption of the continuation of current or announced policy or a policy set that is consistent with an evolutionary path indicated by past and current policy. In this case, the expected policy changes are so large, the goals and intents are so non-transparent, and the potential consequences are so large that USDA has had to rely on very general principles to determine its 2014 forecast. For these same reasons this paper also discusses alternative scenarios. USDA's first official forecast will be in May 2014, and some aspects of China's policy will be clearer by then.

One general principle is China's long-standing practice of applying experimentation and gradual change to its reforms (Naughton, 2008). This suggests that 2014 will not include a radical shift from China's de facto policy of supporting the world price above market-clearing levels. But, policy changes will be oriented towards eventually reducing this support to a significant degree. In the same spirit, the price at which policy-makers endeavor to release reserve stocks into the market is not expected to decline precipitously from its current levels near 18,000 RMB/ton. But as policy-makers seek to reverse the growth in stocks, reduce the \$2-3 billion annual expenditure to maintain the stocks, and reduce the large implicit tax they have imposed on their textile industry, they will likely encourage sales at lower prices in 2014. This is all the more likely since a likely impact of many of China's these other policy changes is a lower cotton price outside of China.

USDA's forecast of the 2014 (MY) A Index at a 80 cents/lb average is consistent with its expectations for supply and demand outside of China, and with an improving world economy and moderate changes in exchange rates (Johnson, et al., 2014). It is also consistent with current reports from China about markets and policy developments and a baseline set of assumptions about shifts in China's cotton policies:

Production policy: limited reduction in income for Xinjiang producers through the introduction of direct subsidies, and a 25 percent reduction in price for Inland producers—with normal weather, a crop of 30.5 million bales is expected.

Import Policy: the availability of sliding-scale quota in 2014 will be near the lowest levels since the program was initiated in 2005, but is likely to total close to the size of the 4.1 million bale

TRQ. This level of sliding-scale quota balances competing objectives: it is less generous than the high levels of the previous two years when ending stocks rose sharply, but it continues to maintain significant access to new-crop foreign cotton. This will allow spinners greater latitude in meeting the specifications of their customers, improving the profitability of producing and selling yarn. Imports are expected to fall 3 million bales to 8 million bales, their lowest since 2006, but will equal 20 percent of consumption.

Reserve sales policy: China will begin to reduce the effective premium its textile mills pay compared with mills outside of China. An 80-cent A Index equates to a 17,000 RMB/ton cost for full-tariff imports (assuming about 6.0 RMB/USD). Since 2011, the spot price in China has hewed closely to the full-tariff equivalent of the A-Index. This compares with the 12,500-13,500 RMB/ton that China's mills would have paid given that world price before 2011, when policy was less disruptive. China's reserve sales are expected to be managed to begin to close that gap between 13,000 and 17,000 RMB, but only gradually in 2014 (MY). In the absence of an announced reserve policy, USDA is assuming a season average release price of 15,000 RMB/ton for its baseline. The result will be a slightly larger share for China's mills of growing world cotton consumption, and China's cotton consumption is expected to rise 2 million bales to 38 million. This gradual change will allow policy-makers to gauge how the textile industry responds—China's economy continues to change rapidly and expectations developed before 2011 may no longer be valid. This gradual change will also limit the accounting losses that will be accrued by selling cotton below the combined cost of purchasing and storing cotton since 2011-13.

Exports: exports are expected to remain negligible. The most recent year in which China's exports were much greater than 100,000 bales was 2002 (MY). Exports that year reportedly required subsidies and China's WTO accession agreement does not include a level of permitted export subsidy for cotton.

Ending stocks: the level of stocks is expected to increase marginally, but the ratio of stocks to use is expected to decline slightly, from 159 percent in 2013 (MY) to 152 percent. Policy-makers' ultimate goal with respect to stocks is unknown, and would likely change with circumstances. Before 2010, China's stocks/use ratio was typically about 50 percent, but it typically fluctuated by about 12 percentage points annually. The experience of 2010's price shock has likely raised policy-makers' perception of an ideal level of stocks, but that ideal likely still remains far closer to 50 percent than to 150 percent, and a policy set that moves stocks lower would be consistent with long term goals.

### **Alternatives: Reserve and Trade Policies to Accelerate Stock Declines**

While China's mills rely on imported cotton to some extent to meet quality parameters for yarn (in the past, particularly for export orders), China's reserve authority has imported millions of bales of foreign cotton in recent years, and lots offered for sales from the reserves have often included a significant share of foreign cotton. Therefore, an alternative policy scenario aimed at reducing stocks more quickly could involve limiting the availability of sliding-scale quota, and a level of imports much closer to a TRQ level

of 4.1 million bales. China's mills would acquire a greater share of their foreign cotton through sales from the reserves and would likely consume a smaller proportion of foreign cotton.

However, while China likely could successfully accelerate its stock reduction in 2014 by reducing imports to this degree, the resulting decline in world price would limit any increases in mill use in China unless reserves sales occurred at prices significantly lower than those expected in the baseline scenario discussed above. The accounting costs for the reserve authority and the government implicit in selling cotton from the reserve for about one-third less (for example) than its purchase price and the potential for world prices to fall sharply suggest the draw-backs to embarking on this approach in the initial year of cotton policy's reform.

These dilemmas for policy-makers are a consequence of the size of China's cotton sector and the size of its reserve stocks. China's size constrains its ability to reverse its policy due to the impact of these developments on world markets. China's 2013 (MY) ending stocks are forecast to equal 53 percent of world consumption, which is about what the entire world's stocks averaged during 2000-09. As a result, changes in China's stockholding policy are potentially disruptive in multiple dimensions. For budgetary purposes and to meet its WTO commitments, China has an incentive to keep its reserve sales price high: this minimizes the losses incurred by selling reserve cotton for less than 19,800-20,400 RMB/ton cost of acquisition plus storage. Unfortunately for policy-makers, slowing and reversing the growth of the reserve directly and indirectly reduces the world price of cotton, increasing the gap between the costs of building the reserve and the returns from liquidating it. This increases the likelihood that expenditures will be found to exceed the 8.5 percent de minimis limit under China's WTO obligations.

In 2014, policy-makers are expected to experiment with changes directed at unwinding their 2011-13 policy. Production policy will clearly protect producers in Xinjiang, but the final outcome of policy for producers in the Inland provinces is not clear. Lower prices and production in 2014 are expected for these provinces, and policy-makers will determine their future policy partly based on developments in 2014 (MY). This applies to trade and reserve management policy as well. Lower prices in China relative to the rest of the world are likely in 2014 (MY), but policy-makers decisions in future years will be shaped by the responses to their incremental steps in the coming year.

### **Acknowledgments**

Contributions to the insights and information in this paper have come from: Hunter Colby (USDA/WAOB), Fred Gale (USDA/ERS), James Johnson (USDA/FAS), Leslie Meyer (USDA/ERS), Ignacio Perez (OECD/TAD), Carol Skelly (USDA/WAOB), Ralph Seeley (USDA/ERS)

### **References:**

Beijing Cotton Outlook Consulting Co. Ltd, CCIndex(328) Download, accessed February 11, 2014.

Foreign Agricultural Service, U.S. Department of Agriculture, PS&D Online, accessed February 11, 2014. <http://apps.fas.usda.gov/psdonline/>

Gale, Fred (2013), *Growth and Evolution in China's Agricultural Support Policies*, ERR-153. U.S. Department of Agriculture, Economic Research Service.

<http://www.ers.usda.gov/publications/err-economic-research-report/err153>

IHS Global-Insight, Comparative World Overview Tables, January 15, 2014

International Monetary Fund, International Financial Statistics (via Haver Analytics).

Johnson, J., MacDonald, S., Meyer, L., Norrington, B., and C. Skelly (2014), "The World and United States Cotton Outlook", USDA Outlook Forum 2014, February 20, 2014, Washington, DC

MacDonald, S., Pan, S., Hudson, D., and F. Tuan (2014), "Toward a consumer economy in China: implications of changing wage policies for U.S. cotton exports," *Agricultural Economics*, 45: 1-12.

Naughton, Barry (2008), "A political economy of China's economic transition," In Loren Brandt and Thomas G. Rawski (Eds.), *China's Great Economic Transformation*, Cambridge University Press.

Table 1—Policies in China Affecting Cotton Sector

---

Economic Policies

- Exchange rates
- Environmental regulations
- Monetary policy
  - Access to funds for investment
  - Rate growth in China's domestic economy
- Textile trade policy: import restrictions and export VAT rebates

## Agricultural Policies

- Rural infrastructure and social welfare
- Support for alternative crops
  - Rising minimum prices for grains
  - Direct subsidies and input subsidies for grains

## Cotton-specific policies

- Level and distribution of direct subsidies to producers

- Reserve buying price and magnitude of reserve purchases
- Reserve sales price and magnitude of reserve sales

## Trade policy

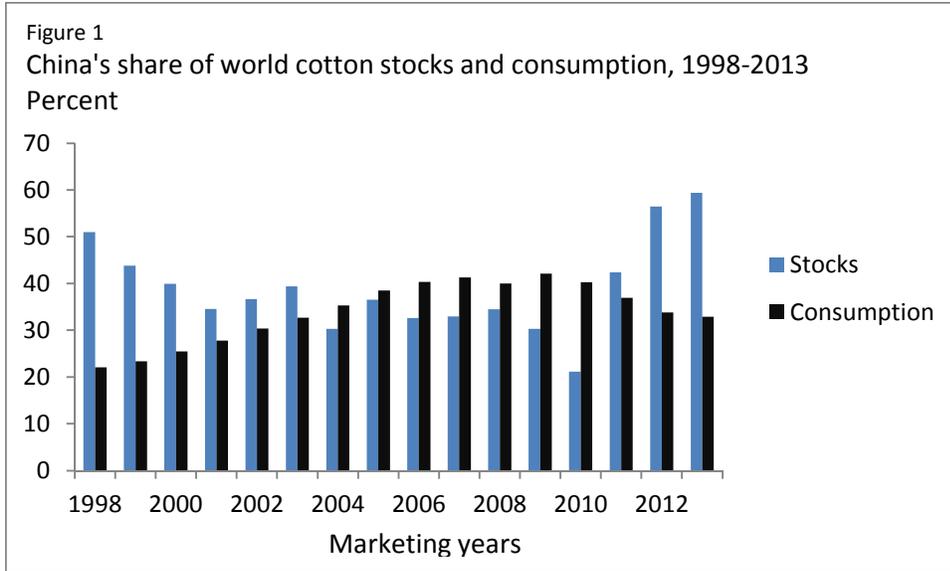
## Import policies

- Tariff-rate quota (TRQ) administrative issues
  - TRQ tariff at bound level or reduced
  - Administrative barriers to use of TRQ
- Sliding-scale quota (SSQ) administrative issues
  - Tariff levels for sliding-scale quota imports
  - Amount of quota for imports at sliding-scale tariffs
  - Administrative barriers to use of SSQ
- Out-of-quota import administrative issues
- Government and SOE purchases of foreign cotton

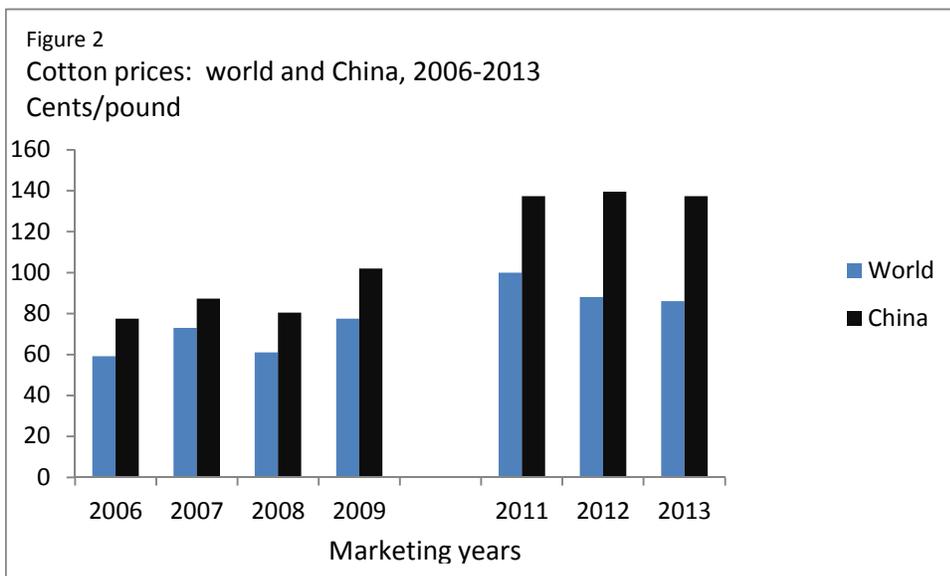
## Export Policies

- Exports of current year output if domestic prices fall enough
- Exports of cotton released from reserve stocks

---



Source: ERS calculations based on data from PS&D Online (FAS/USDA, 2014).



Note: 2010 removed for clarity. That year, world prices averaged 165 cents/lb and spot prices in China averaged 177 cents.

Sources: Cotlook Ltd., and ERS calculations based on data from Beijing Cotton Outlook and the International Monetary Fund.