(a completed version will be posted later)

China's cotton policy and its domestic and world market implications

Wusheng Yu
and
Hans G Jensen
Department of Food and Resource Economics
University of Copenhagen
Denmark

Abstract

China's cotton production has been under serious threat from rising labor costs. Its domestic cotton supply and use relationship has also been mismanaged by recent government policy choices, which resulted in large domestic storage, expensive domestic subsidies, and also high amount of imports. This has prompted a recent policy change in favor of the so-called targeted price system. Using a CGE modeling approach, this paper aims at estimating the domestic production and trade effects of China's recent cotton policy, especially the impacts of the newly installed target-price based subsidy under the circumstance of rising labor costs. We also model the impacts of domestic and trade policy coordination on cotton imports and world cotton price, as well as how a potential WTO cotton agreement may interact with and complicate China's cotton policy choices.

Introduction

Cotton policy continues to be a contentious issue in multilateral trade talks and bilateral trade litigations, with countries such as Brazil and the Cotton Four countries (or C-4) in West Africa (i.e. Benin, Burkina Faso, Chad, and Mali) having complained about unfair domestic subsidies offered by exporting countries such as the US. Among importing countries, China as the world's largest cotton importer has in recent years been forced to more actively intervene its domestic cotton markets through various policy instruments in order to make its shrinking domestic production viable, while importing historically high amount of cotton and building up a large cotton reserve stock mainly consisting of domestic production (estimated to be almost twice as large as its annual domestic consumption in 2014). According to some estimates (ERS 2015; ICAC 2015), these efforts likely imply government assistance exceeding the levels allowable by China's WTO commitments. However, judging from the actual market outcomes of these policy actions particularly during the period of 2011-2013 when world cotton prices were at very high levels, it appears that China's policy actions had actually supported the high world market prices, thereby benefitting cotton exporting countries, such as the C-4 countries.

One of the most important domestic factors influencing China's cotton sector and policy has been the rapidly rising wages at double-digit growth rate annually in recent years. Rising labor cost has eroded the competitiveness of China's exports of textile and clothing products, thereby threatening the growth prospects of domestic cotton consumption. It also raises the production cost of cotton, leading to further declines of the domestic cotton sector even in the presence of government support. To slow down the decline of domestic cotton production and to maintain a desirable level of self-sufficiency, a *Temporary Reserve Procurement Program (TRPP)* was implemented by the Chinese government during the 2011-2013 period to allow the state-run cotton reserve system to stockpile procured cotton at above world market prices. However, as world market prices receded from historical high levels but domestic cost continued to rise, an expanding gap between China's domestic price and international price was observed in the latter part of that period, leading to an upsurge of cotton imports as well as a rapid growth of cotton reserve stock. Financing this large stock placed a big fiscal burden on the Chinese government, as the downstream industries preferred cheaper imported cotton. Facing these challenges, China started to change its cotton policy into the so-called *Target-Price Subsidy Program (TPSP)* in 2014. Under the *TPSP*, the government pre-announces a more reasonable targeted price which is used as the basis for dispensing direct subsidies to cotton producing farmers. Instead of procuring and stockpiling cotton at the targeted price, the government only pays farmers the difference between market price and the target price when the former is lower than the latter.

After its implementation in the first year, the *TPSP* succeeded in bring domestic market prices closer to the world market prices. Nevertheless, there are still a few outstanding issues to be addressed, such as: how to draw down the public cotton reserve stock from its historically high levels without upsetting domestic production and destabilizing the world market? How to sustain the competitiveness of domestic cotton sector without excessive government assistance? How to balance the competing interests between the cotton sector and the downstream textile and clothing industries, both of which are struggling with rising labor costs? These domestic challenges certainly call for carefully evaluations based on rigorous empirical economic analysis.

China's cotton policy also faces potential international challenges as it relates not only to its price setter position but also to its obligations under the WTO, especially if continued government support and the potential draw-down of its public stock lead to depressed world cotton prices. For instance, while at the moment China's cotton imports from West Africa is a relatively small part of its total cotton imports, cotton exports are a big part of total exports from those countries, with about 3 million households, and up to 16 million people are directly or indirectly related to cotton production and trade and with more than 80% cotton produced there being exported. Therefore, it is also important to identify and quantify the effects of China's new cotton policy on developing countries such as the C-4, especially in a global context where China's policy interacts with those of other important players on the world market, particularly the policy of the US.

Objectives

Based on the above discussions, the objective of this paper is to estimate and disentangling the effects of China's cotton policy on world cotton production and trade. Specific research agenda includes:

a. To model the impacts of the target-price based subsidy program on China's cotton production and import under the circumstance of rising labor costs;
b. To model the impacts of drawing down China's excessively large cotton stock and trade policy coordination on cotton imports and world cotton price;
c. To estimate the impacts of a potential WTO cotton agreement on world cotton trade, especially on cotton exports from West Africa and on imports into China.

Data, Methodology and Scenarios

We will base our analysis on simulation exercise with the GTAP model and database. All major cotton producing, importing and exporting countries, as well as relevant textile and clothing producing and consuming countries are included in the model and database. The cotton sector and the textile and clothing sector are also represented in the model and database, including their production, consumption, trade and essential input-output linkages, as well as major trade and domestic policy instruments. Therefore, the model/database is a good tool for conducting economy wide analysis on the effects of national government policy changes and coordinated policy changes across countries mandated by relevant trade agreements on global trade and production patterns.

Detailed policy information regarding China's temporary stockpiling policy, the more recently implemented targeted price system, and other domestic support programs will be gathered from mainly Chinese sources. Trade policy instruments including the sliding scale tariff within the cotton tariff rate quota system will also be collected for the most recent years. In addition, knowledge and estimates on China's cotton reserve stock will be sourced. Relevant policy information of other major cotton players will also be gathered, for example US cotton policy as contained in the 2014 farm bill. Based on these data, a baseline of 2014 will be built, by updating the GTAP version 9 database from its base year of 2011. This baseline will represent cotton production, trade, consumption and stock, as well as cotton policy in China and elsewhere.

Several counterfactual scenarios will be constructed and simulated against the 2014 baseline for estimating the effects of China's cotton policy in relation to the declare research agenda of this research, including:

Scenario 1. Estimating the market effects of the target price subsidy system by alternatively setting the target prices at levels closer to prevailing world market prices;
Scenario 3. Comparing the effects of the target prices with those of the temporary reserve purchase program and with hypothetical decoupled direct cotton subsidies
Scenario 2. Exploring optimal policy coordination between domestic and border policy by simulating alternative combinations of sliding scale import tariff and target prices;
Scenario 4. Illustrating the effects of alternative methods for drawing down reserve stocks;
Scenarios 5. Potential WTO disciplines on cotton subsidies and implications on China's current cotton policy.

Results and analysis

(to be added)

Conclusion and discussion

The Chinese cotton policy has been increasingly influencing the world cotton market, and by extension cotton producers in China and in other developing countries whose livelihood are depending on cotton export opportunities and remunerating world market prices. Also, as shown by the performance of China's cotton policy in the recent past, poor designed policy mixes can cause astronomical high fiscal costs without desirable market effects. Yet, original analytical contributions to China's cotton policy have been rare in the current literature and remain virtually nonexistent in the form of rigorous quantitative economic studies.

As model-based quantitative assessment of China's cotton policy has not emerged, the proposed study has the potential to be the first such study. Numerical results of the study will likely be used by particularly trade policy makers in the context of negotiating a more stable and reliable world cotton trading system.