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Global Trade Analysis Project

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Will China's new maize policy be able to solve its messy maize problem?

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Introduction

China's maize sector has experienced major issues in recent years in the form of rising costs and domestic prices, increasing domestic production but also increasing imports, and the build-up of historically large public stockholding reportedly at 260 million tons as of 2016, an amount exceeding China's annual production in 2015. Most of China's current maize stock was accumulated due to the maize temporary procurement and stockpiling policy. The storage costs are estimated to be around CNY 65 billion per year. With world market prices for maize and other coarse grains remaining at lower levels, and China's maize imports being constrained by the maize TRQ at 7.2 million tons and the high out-quota tariff of 65 percent, China imported record amounts of substitute products such as sorghum, barley, and dried distillers grains with solubles (DDGS), a situation which further worsened the maize stock situation in China. China's procurement price based maize policy has also resulted in complaints from its trading partners. For instance, in September 2016 the US initiated a WTO complaint on China's price support for rice, wheat and maize. To ease the pressure on the further build-up of its maize stock, China also resorted to trade remedies such as anti-dumping duties and anti-subsidy tariffs to curb DDGS imports from the US. It has also been reported that previously exempted value added tax are now imposed on DDGS imports at a rate of 13%.

Facing these challenges, the Chinese government reversed recent policy trends by first freezing the temporary procurement and stockpiling price in 2014 and then in 2015 dropping this floor price by about 10 percent (from 2.26 to 2.00 CNY/kg). It was announced in March 2016 that the temporary procurement and stockpiling program for maize would be formally repealed in 2016 and would be replaced by "market procurement" and direct subsidies to maize producers. Although the amount of subsidies to be paid to maize producers has not been formally released, it is reasonable to expect that these payments will be large enough to at least partially offset the differences between production costs and the (likely lower) market price for maize, so as not to cause drastic changes to the already fragile maize market in the short run. However, in the longer run, it is expected that the production incentives provided through the direct payments will be weaker so that maize outputs will be lowered and maize planting areas will be reduced, with the direct payments mainly becoming more of an income supplement.

In addition, China has also provided production and export incentives for downstream industries to process domestically produced maize, including the conversion to starch and ethanol (and DDGs as the by-product).

Objectives

The purposes of this paper are to investigate the initial effects of China's recent maize policy changes and to explore further domestic and trade policy options in the maize and related markets.

Specific research agenda includes:

- a. To model the direct impacts on the maize market of the recent policy change from government procurement and stockpiling to direct producer subsidies;
- b. To model the indirect impacts on the downstream sectors of recent maize policy changes
- c. To model the direct and indirect impacts of complementary trade policy measures in maize and related markets, particularly with regard to the anti-dumping and countervailing duties levied on US DDGS imports and the imposition of value added tax;
- d. To explore further reforms of China's domestic and trade policy in the maize sector, including potentially harmonization and decoupling of China's differential domestic subsidies in the four grain sectors

Data, Methodology and Scenarios

We will base our analysis on simulation exercise with the GTAP model and database. All major maize producing, importing and exporting countries are included in the model and database. Detailed policy information regarding China's temporary stockpiling policy, the more recently implemented direct producer support policy for the maize sector, and other existing domestic support programs will be gathered from mainly Chinese sources. Trade policy instruments including the maize TRQ and related trade policy and trade remedies on related markets will also be collected for the most recent years. Based on these data, a baseline of 2015 will be built, by updating the GTAP version 9 database from its base year of 2015. This baseline will represent maize production, trade, consumption and stock, as well as maize policy in China.

Several counterfactual scenarios will be constructed and simulated against the 2015 baseline for estimating the effects of China's maize policy in relation to the declare research agenda of this research, including:

Scenario 1. Simulating the market effects of the change from government procurement at floor prices to direct producer subsidies;

Scenario 2. Estimating the desirable level of direct subsidies to maize producers, given alternative targets in reducing maize output levels

Scenario 3. Exploring policy coordination between domestic and border policy by simulating alternative combinations of domestic producer subsidies and trade remedies on related substitute products;

Scenario 4. Positioning the maize issue in the broader context of China's grain policy reforms by considering harmonization and further decoupling of all direct payments in China's grain sectors (rice, wheat, maize and soybean).

Expected findings

The net outcomes of recent reforms are likely to include reduced maize planting areas and production (particularly in Northeast China and Inner Mongolia), slowing build-up of maize stock, continuing imports within China's TRQ, and possibly faster release of existing stock at subsidized prices, especially to the maize processing industries. In the immediate short run when planting decisions cannot be easily adjusted, it is expected that direct subsidies will become quite substantial to compensate for the loss to producers due to the repeal of the procurement and stockpiling policy. Judging from the size of China's DDGS imports, anti-dumping and countervailing duties on DDGS imports will likely have modest effect on China's domestic maize market, whereas the cost associated with the provision of assistance to the domestic maize processing industries may also be substantial. In the longer run, however, substantial reductions in maize planting area and outputs will be expected to reverse the increasing trend induced by the procurement and stockpiling policy, particularly if the newly introduced direct producer subsidies are effectively decoupled.

The modelling and simulation exercises proposed in this study will provide more detailed results to substantiate the above speculations and offer more insights into future policy design.