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Value of US Production of Farm Commodities amid Tariff Conflict

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This article takes a step back from the headline of tariffs and agriculture to address a broader question, "How have estimates of the value of production changed since advent of the tariff conflict?" This change reflects more factors than tariffs, such as weather and production in the US and rest of the world. Specifically examined are changes in the value of production for the initial set of commodities receiving Market Facilitation Program (MFP) payments (corn, cotton, milk, pork, sorghum, soybeans, and wheat - see Data Note 1). The perspective that emerges often differs from public discussion.

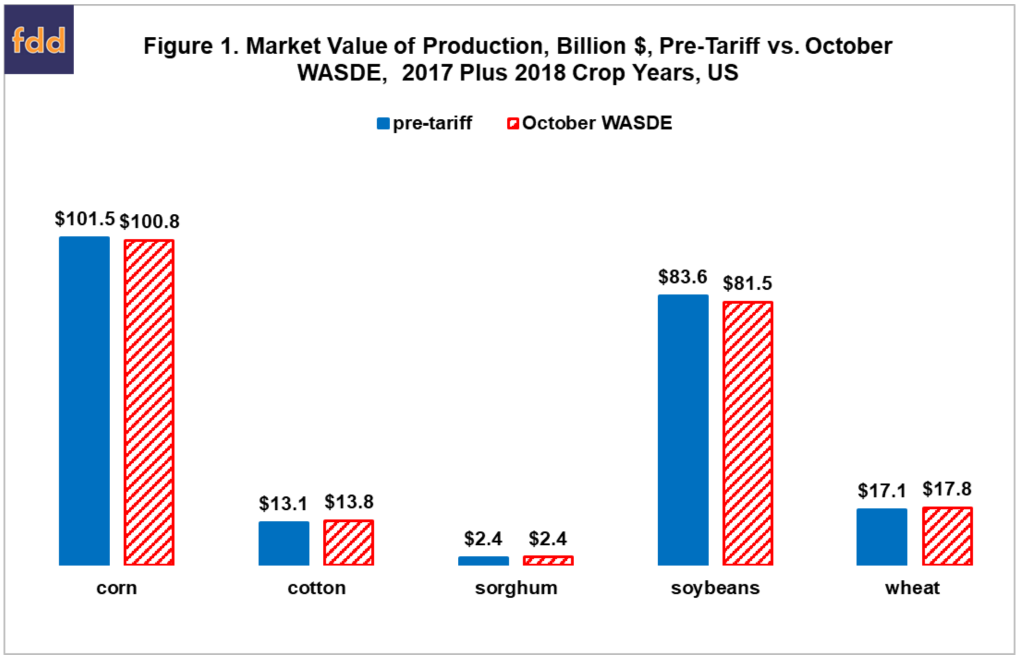
Procedures and Data

A significant event was the March 1, 2018 US announcement that it would impose 25% and 10% tariffs on steel and aluminum imports, respectively (Swanson, Coppess, and Schnitkey). The ensuing tariff conflict has bridged the 2017 and 2018 crop years for corn, cotton, sorghum, soybeans, and wheat. Because of the length of breeding and production cycles, impacts on milk and hog production potentially bridge the 2018 and 2019 calendar years. A measure of projected value of production that predates March 1, 2018 for the 2017 crop year / 2018 calendar year can be obtained from the February 2018 *World Agricultural Supply and Demand Estimates* (WASDE). The May 2018 WASDE is the first to provide estimates for the 2018 crop year / 2019 calendar year. The May estimates post-date the start of the tariff conflict and thus may have been impacted by the tariff conflict. This potential should be kept in mind. The latest WASDE was released October 11, 2018.

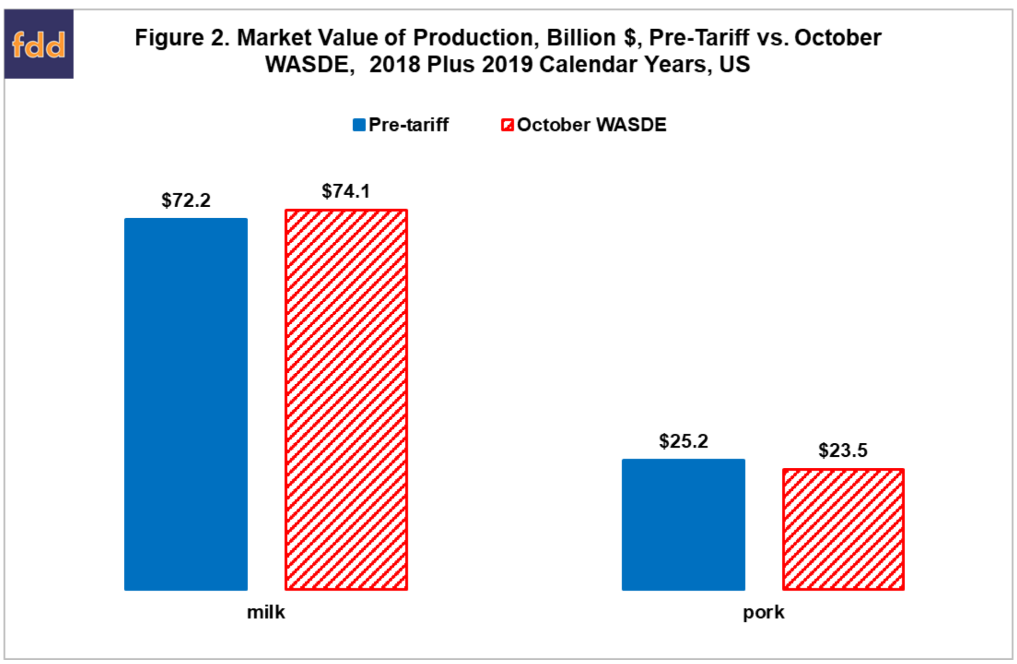
Change in Projected Value of Production

Value of production for crops is computed as season average price time quantity of production. Pre-tariff projected value equals sum of this value for 2017 crop year using February 2018 WASDE and value for 2018 crop year using May 2018 WASDE. Compared with the pre-tariff value, projected value of production calculated using the October 2018 WASDE is lower for soybeans (-$2.1 billion) and corn (-

$0.7 billion) (see Figure 1 and Data Note 2). October value is higher for both cotton and wheat (+$0.7 billion) and unchanged for sorghum.



Value of production for milk and pork equals WASDE projected calendar year average price time quantity of production. Pre-tariff projected value equals sum of this value for 2018 calendar year using February 2018 WASDE plus value for 2019 calendar year using May 2018 WASDE. October WASDE projected value is lower for pork (-$1.7 billion) but higher for milk (+$1.9 billion) (see Figure 2).



Summary Observations

- Negative changes in US farm value of production of the 7 commodities initially targeted for Market Facilitation Program assistance have so far been confined to soybeans, pork, and corn. As a share of pre-tariff value, declines for these commodities are -6.7%, -2.6%, and -0.7%, respectively.

- Higher projected value of production does not imply the tariff conflict has not depressed value relative to where it would be without the conflict or that a decline in projected value could be more.
- Changes in projected value of production are a reminder the tariff conflict is only one factor impacting the value of US farm commodities. In particular, per usual, weather is a notable factor: from severe drought in Argentina, Northern Europe, and Australia to exceptional yields in much of the US and southern Europe.
- For current production, impact of the tariff conflict awaits the crop being planted in South America. Very different scenarios emerge if the South American crop is at or above vs. below trendline.
- Intermediate impact depends on whether the tariff conflict pushes China's economy into recession, how impact on soybeans radiates out to other crops, plus unforeseen positive and negative events.
- Long run impact is troubling because the tariff conflict again raises the issue of how reliable is the US as a provider of the daily staff of life, a topic broached in a historical perspective of the USSR grain embargo in a July 13, 2018 *farmdoc daily* article (Zulauf, Coppess, Paulson, and Schnitkey).
- The tariff conflict and Market Facilitation Program raise several tactical and strategic policy issues.
  - ➢ Should the next round of payments by the Market Facilitation Program consider the role of expected payments for the 2018 crops by commodity programs and perhaps crop insurance?
  - ➢ Is a one or two year extension of the farm bill desirable to allow a more informed perspective on the impact of the tariff conflict?
  - ➢ What, if any, design issues do the tariff conflict raise for commodity programs?
  - ➢ What is the right mix of public support for US commodity programs and crop insurance when international trade is a key risk factor?

Data Notes:

(1) USDA recently announced shelled almonds and fresh sweet cherries will receive MFP payments.
(2) WASDE reports supply and demand quantity variables for all cotton (upland and extra-long staple) but the price variable is reported only for upland cotton. Upland cotton accounts for 96% - 97% of all US cotton production in recent years.

References

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