A deeper look into the USDA long-term projections for crop agriculture

Every February the United States Department of Agriculture (USDA) releases a 10-year baseline projection of the production and utilization of key crops and livestock beginning with the marketing year that starts in the then-current year. In February 2018, the USDA agricultural projections were for the 2018-2027 marketing years. For livestock the marketing year is the calendar year, while for crops the start of the marketing year is determined by the month in which the major harvest of that crop begins (https://tinyurl.com/y9rnw831).

The February baseline release uses the previous November's *World Agricultural Supply and Demand Estimates* (WASDE) (https://tinyurl.com/y9qlcr6m) as the starting point. The baseline projections are generally straight-line projections assuming that the then current known factors continue for the next ten years. In determining farm income and government costs for farm programs, the assumption is that the policies in effect at the time the projections are made continue for the next ten years.

Producers and users of the covered crops and livestock species can take these baseline projections into consideration in their long-term planning. At the Agricultural Policy Analysis Center, we use the baseline projections to analyze the impact of various policies on farm income and government costs.

In addition, we can "shock" the baseline to identify the impact of a significant change in production (drought, for instance) or utilization (a new trade agreement) on government costs and farm income. The baseline allows us to determine how robust a given policy might be under a variety of different circumstances.

Commercial organizations, particularly those dependent upon agriculture, can use the baseline in a similar way to examine how their business might function under different agricultural scenarios.

In October, 2018, the USDA released a report from the Economic Research Service and approved by the USDA World Agricultural Outlook Board titled "An Exploration of Crop Markets: Α Deeper Look Into the **USDA** Crop Baseline Projections," (https://tinyurl.com/y829aelr). "This report complements the USDA Agricultural Projections to 2027 report released in February 2018 by providing a roadmap of the process for generating the U.S. Department of Agriculture's long-term projections." It provides more detail on the thinking behind the 2018-2027 Baseline than can be included in that publication.

The report is divided into three major sections: an analysis of the current conditions in crop markets (Setting the Stage), a review of the interactions among the three major crops—corn, soybeans, and wheat—and between these crops and other crops (The Major Linkage Between Crops: The Competition for Land), and a more thorough look at the markets for corn including sorghum, soybeans, wheat, cotton, rice, and sugar (Deeper Exploration of the Commodity Markets).

In the first section (Setting the Stage), the authors point out that the recent bumper crops have put a downward pressure on prices and that "the [US] generally is expected to lose global market share across a variety of commodities" and that the period of high prices has ended, and farmers have "entered a new period of low agricultural prices." As is common in USDA baselines, the projection for prices is slightly upward for the 10-year period.

The second section (The Major Linkage Between Crops: The Competition for Land) provides a valuable analysis of how expected changes in demand and relative profitability of each of the three crops, as well as agronomic and regional location of production, affect changes in the allocation of crop acreage among the three crops.

In examining corn and its substitute sorghum, the last major section looks at the various uses of corn, as well as yield and export trends. The expectation is that yields increase at a rate faster than global and domestic markets, the area devoted to corn will decline and soybeans will be planted on more acres than corn for the next decade. The section also provides a similarly detailed look at each of the key crops included in the baseline.

While there was nothing new in the analysis of this publication, we found it useful in the broad overview it provides and think others will as well.

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