AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

farmdoc DAILY

Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Payments by U.S. Farm Safety Net Program: Differences by Crop

Carl Zulauf

Department of Agricultural, Environmental and Development Economics
The Ohio State University

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

May 9, 2013

***farmdoc daily* (3):88**

Recommended citation format: Zulauf, C. and G. Schnitkey. "Payments by U.S. Farm Safety Net Program: Differences by Crop." *farmdoc daily* (3):88, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, May 9, 2013.

Permalink: http://farmdocdaily.illinois.edu/2013/05/payments-us-farm-safety-net-crops.html

Overview

An important aspect of the on-going debate over the new farm bill is the proposed elimination of direct payments. This proposal differentially impacts the program crops, prompting a debate among crops and geographical regions over the distribution of payments by farm safety net programs. We believe this issue is the most important in the farm bill debate. We therefore examine it in more detail. This post specifically compares the distribution of payments by the direct payment, crop insurance, and price risk programs. The comparison begins with the 2003 crop year because the counter-cyclical program, an important price risk program, was initially enacted in the 2002 Farm Bill.

This post builds upon the discussion in these recent farmdoc post: "U.S. Crop Safety Net Policy: Overarching Considerations and the Current Farm Bill Debate," available here; "Farm Bill Negotiations: Selection between Three Programs," available here; and "Questions That Will be the Focus of the Upcoming Farm Bill Debate," available here.

Distribution of Direct Payments among Crops

Direct payments ranged from 1.3% and 2.0% of crop sales for oats and soybeans, respectively, to 14.9% and 16.2% of sales for sorghum and rice, respectively (see Figure 1). Thus, the elimination of direct payments will have notably different impacts across the program crops. Figure 1 underscores that, while it is straightforward to note that society questions the appropriateness of making $5 billion in annual direct payments with near record crop income; it is less straightforward how to address the differential impact by crop of eliminating direct payments. Source of the data are the U.S. Department of Agriculture (USDA), Farm Service Agency (FSA). When interpreting this ratio, it is useful to keep in mind that sales are based on production and hence planted acres while direct payments are based on historical base acres.

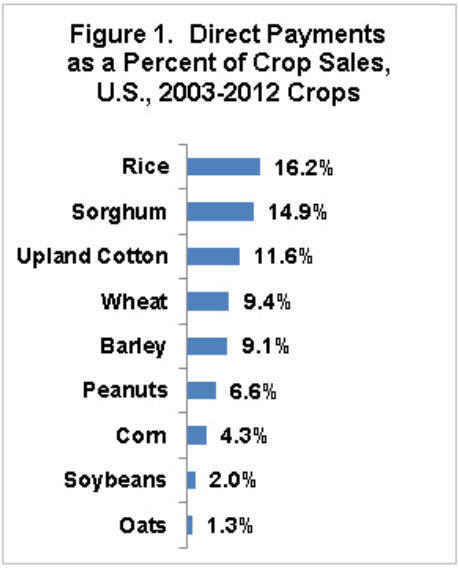
We request all readers, electronic media and others follow our citation guidelines when re-posting articles from farmdoc daily. Guidelines are available here. The farmdoc daily website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies here.

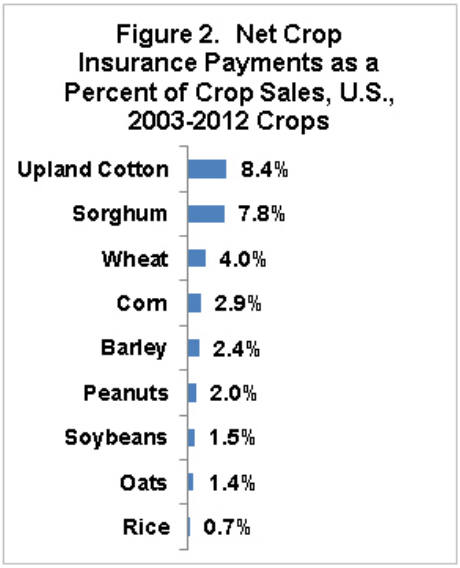
Direct Payments vs. Net Crop Insurance Payments by Crop

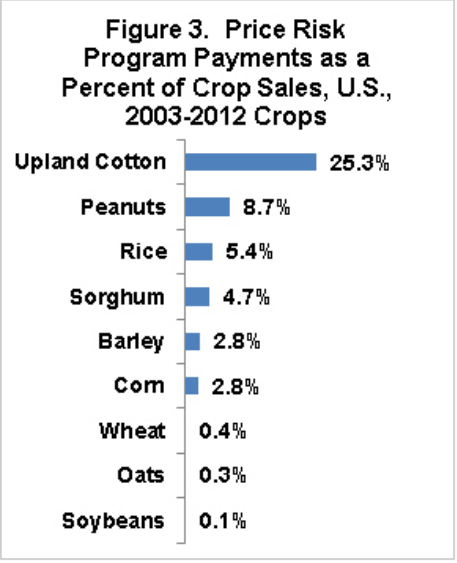
Eliminating direct payments would make crop insurance the primary farm safety net program, culminating a 30-year trend toward an increasing role for crop insurance. Thus, it is important to compare the distribution of payments by these two programs by crop.

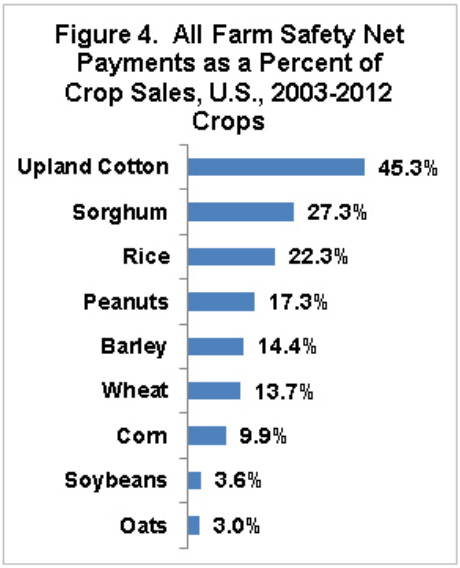
Figure 2 presents net crop insurance payments expressed as a percent of crop sales. Net crop insurance payment is calculated as crop insurance indemnity payments received by farms minus the premiums paid by farms. Figure 5 is also generated to facilitate comparison. It presents this difference: net crop insurance payments minus direct payments, both expressed as a percent of sales. Source of the data are USDA, Risk Management Agency (RMA). As can be seen, payments differ across crops, with a range of 8.4% for cotton down to .7% for rice.

The distribution of net crop insurance payments in Figure 2 differs from the distribution of direct payments in Figure 1. Net crop insurance payments and direct payments as a percent of crop sales are most similar for corn and soybeans, as well as oats. This similarity, together with the smaller size of direct payments relative to sales, is consistent with the generally=accepted observation that Midwest corn and soybeans are more willing to accept the shift to crop insurance than other crop-region combinations.



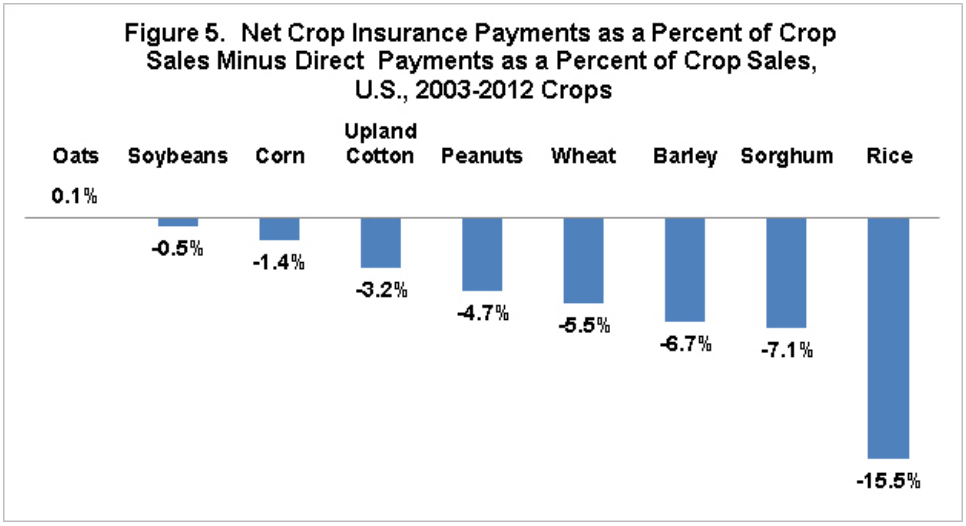






Net crop insurance payments are only 0.7% of rice crop sales while direct payments are 16.2% of rice

crop sales. The difference of -15.5% is more than twice as large as the next biggest difference, -7.1% for sorghum. Thus, Figure 5, together with the relatively large size of direct payments to rice (see Figure 1), illustrates why rice is so concerned with the shift from a direct payment to a crop insurance based farm safety net.



The combination of Figures 1 and 5 also illustrates why farms that grow crops in the Plains are concerned about the loss of direct payments. Direct payments are at least 9% of crop sales for barley, wheat, and sorghum. Moreover, net crop insurance payments as a percent of sales is 5.5 to 7.1 percentage points lower than the percent for direct payments.

Net Crop Insurance Payments vs. Price Risk Payments by Crop

Price risk programs are Farm Bill Title 1 programs that pay when price is below a support price. The counter-cyclical and marketing loan programs are current price risk programs. Marketing loan payments include certificate gains. Source of the data are USDA, FSA. When interpreting this ratio, it is useful to keep in mind that sales are based on production and hence planted acres while counter-cyclical payments are based on historical base acres. Marketing loan payments are based on current production and thus on planted acres.

By far, the crop with the highest price risk payments over the 2003-2012 crop years is upland cotton at 25.3% of cotton crop sales (see Figure 3). The size of these payments is likely one reason that the Brazilian case against the U.S. cotton program was successful at the World Trade Organization (WTO). The U.S. has agreed to alter its cotton support program to comply with this ruling and to consult with Brazil in developing the new cotton program. The current cotton program proposal is the STAX program. STAX is a county-based program that supplements individual crop insurance at smaller or shallow loss levels. The proposed cotton program does not contain a target price program but retains the marketing loan program. The STAX program in the House Agriculture Committee 2012 Farm Bill has a fixed price that acts as a price floor for the STAX program. Most experts expect Brazil to strongly oppose a fixed price in STAX.

Excluding upland cotton, payments by price risk programs over the 2003-2012 crop years totaled $16.9 billion. In contrast, net crop insurance payments totaled $24.1 billion. Relative to net crop insurance payments, price risk payments were a higher percent of crop sales for rice and peanuts (as well as upland cotton) (see Figure 6). The reverse is true for most of the other program crops. This historical experience is consistent with the focus of rice and peanuts on price risk programs during the farm bill debate. In particular, their historical experiences suggest that price risk programs might be one way to compensate for their loss of direct payments.

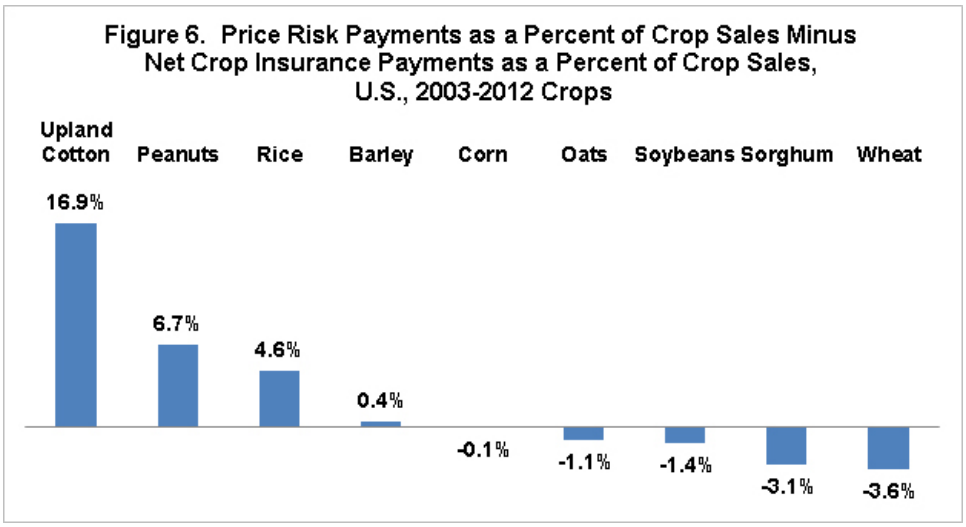


Figure 4 is included to round out the presentation of farm safety net payments over the 2003-2012 crop years. Total farm safety net payments expressed as a percent of crop sales ranged from 45% for upland cotton and 27% for sorghum to 4% for soybeans and 3% for oats.

Summary Observations

Much of the debate over the crop safety net can be seen as a reaction of the program crops to two factors: (1) the proposed elimination of direct payments and (2) the emergence of crop insurance as the primary crop safety net program. Both of these factors affect program crops differentially. Some crops are more dependent on direct payments and some crops are affected more by the transition from a direct payment to a crop insurance based safety net. Rice fares adversely on both factors. It thus is no surprise that rice has been vocal. In contrast, relative to the other program crops, corn and soybeans generally are minimally impacted by these two factors. This situation is consistent with their general willingness, especially in the Midwest, to consider the elimination of direct payments and a farm safety net centered on crop insurance.

Rice and peanuts have embraced target price programs during the farm bill debate. This decision is consistent with their historical experience that payments by price risk programs are a greater percent of sales for rice and peanuts than has been net crop insurance payments. It can thus be seen as a strategy for offsetting some of their losses from the elimination of direct payments. The success of this approach rests upon the willingness to assume that policy makers can set target prices higher than future market prices and thus rests upon the ability to forecast future prices. Academic studies consistently find that the ability to predict future prices is generally limited. Moreover, if rice and peanuts is successful at getting target prices that generate large payments, the success of the Brazilian cotton case clearly suggests the likelihood that a suit will be filed at the WTO against U.S. farm programs as trade distorting. The possibility of this outcome is why all crops have a stake in how the STAX program design evolves. In short, STAX could become the model for future U.S. farm programs for all U.S. crops.

Last, if crop insurance is to emerge as the primary farm safety net program for U.S. crops, it must find a way to address the concerns of peanuts and especially rice about the effectiveness of the crop insurance program for these crops. The 2012 Farm Bill proposals passed by the U.S. Senate and the U.S. House Agriculture Committee both contained a provision to require the Risk Management Agency to develop a revenue insurance contract for peanuts. A revenue insurance contract for peanuts might close the gap between net payments by crop insurance on the one hand and payments by the direct payment and price risk programs on the other hand. Rice presents a more difficult situation because of the low payment level by rice insurance. This low payment level is usually attributed to low yield risk due to the irrigation of rice. However, another possibility is that the existing rice insurance contract is poorly designed. For example, the correlation between the projected rice insurance price and the season average price for long grain rice is only 0.23 over the period of 1987 through 2006. The correlation between the insurance projected price and the season average price for short grain rice is only 0.60 over this period. In contrast, this correlation for corn is 0.91. This simple comparison raises questions about the validity of the price

determination process for rice insurance. More broadly, this discussion suggests that, given the trend to a crop insurance centered farm safety net, it is important for policy makers to make sure that the contract design is equally effective across crops. Otherwise, the crop insurance program will be subject to constant and likely increasing discord across crops and by extension geographical regions.

This publication is also available at http://aede.osu.edu/publications.