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Farm Payments by Programs other than Commodity Programs and Crop Insurance: Third Pillar of the US Farm Safety Net

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Payments by farm production related programs other than farm price and income support and crop insurance to US farms have been substantial since 2017. They have addressed trade disruptions from tariff wars; production losses from hurricanes, drought, fire, and other natural disasters; and COVID pandemic disruptions. These types of payments however have a longer history. This article examines them in historical context as well as their distribution across states. They are found to be countercyclical to net farm return. Although larger in 2020-2022, the distribution across states is generally similar to that of prior years. The ongoing, substantive size of these payments underscores that it is time to acknowledge them as a third pillar of the US farm safety net. It is also time for discussion of what should be the unique, non-overlapping roles of the three pillars: commodity programs, insurance, and other farm production related assistance.

Data and Methods

The data in this article are from the farm income and wealth data set maintained by USDA, ERS (US Department of Agriculture, Economic Research Service). The most recent update of February 7, 2023 contains national data through the 2022 calendar year and state data through the 2021 calendar year. The analysis starts with 1998. It is the first year USDA, ERS reported a category called, *ad hoc* and emergency program payments. A likely reason for its appearance in 1998 is that Congress authorized large *ad hoc* payments (i.e., payments outside the farm bill) to address a sharp decline in farm product demand, prices, and revenue caused in part by a world-wide financial crisis.

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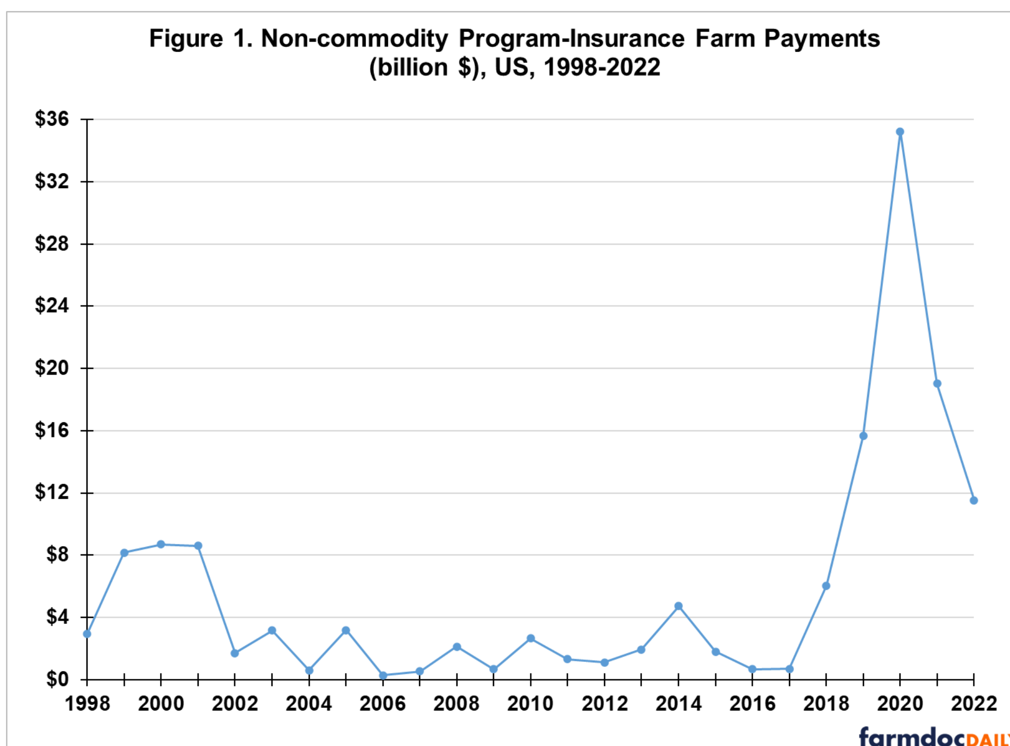
For 2020-2022, the ad hoc and emergency program category is broken out into three subcategories. One is “USDA COVID-19 pandemic assistance,” which includes payments by the Coronavirus Food Assistance Programs (CFAP). The second is “non-USDA pandemic assistance,” which includes forgiven loan amounts from the Small Business Administration’s Paycheck Protection Program (PPP). The third is “other supplemental and *ad hoc* disaster assistance.” It includes payments by the Wildfire and Hurricane Indemnity Program+ (WHIP Plus), Emergency Relief Program (ERP), Quality Loss Adjustment (QLA) Program, other farm bill designated disaster programs, and Emergency Livestock Relief Program.

For years prior to 2020, it is not clear what program payments are included in the *ad hoc* and emergency program category based on the documentation accompanying the farm income and wealth data. It is also not clear how to collectively label these programs. Some but not all are weather-related production disaster assistance programs. Some but not all are *ad hoc* programs. The most appropriate description appears to be “farm production related payments outside price and income support programs and crop insurance.” It was therefore decided to include payments listed as miscellaneous in this study. They account for 0.7% of total payments examined in this study. Also included in this study are Market Facilitation Payments (MFP). Hereafter, these payments will be collectively referred to as “non-commodity program–insurance farm payments.”

Non-Commodity Program-Insurance Farm Payments

These payments slightly exceeded $8 billion / year in 1999, 2000, and 2001; averaged $1.7 billion / year over 2002-2017; rose to $6 billion in 2018; then exceeded $11 billion each year over 2019-2022, including $35.2 billion in 2020 (see Figure 1). They sum to $143 billion over 1998-2022 and $77 billion if 2020-2022 are excluded. Over 1998-2022, commodity program payments total $192 billion (USDA, ERS farm income and wealth data), and crop insurance indemnities net of farm-paid premiums total $89 billion (USDA, Risk Management Agency *Summary of Business*). Non-commodity program-insurance payments have been a substantial part of the US farm safety net since 1998 even if the large recent assistance is excluded.

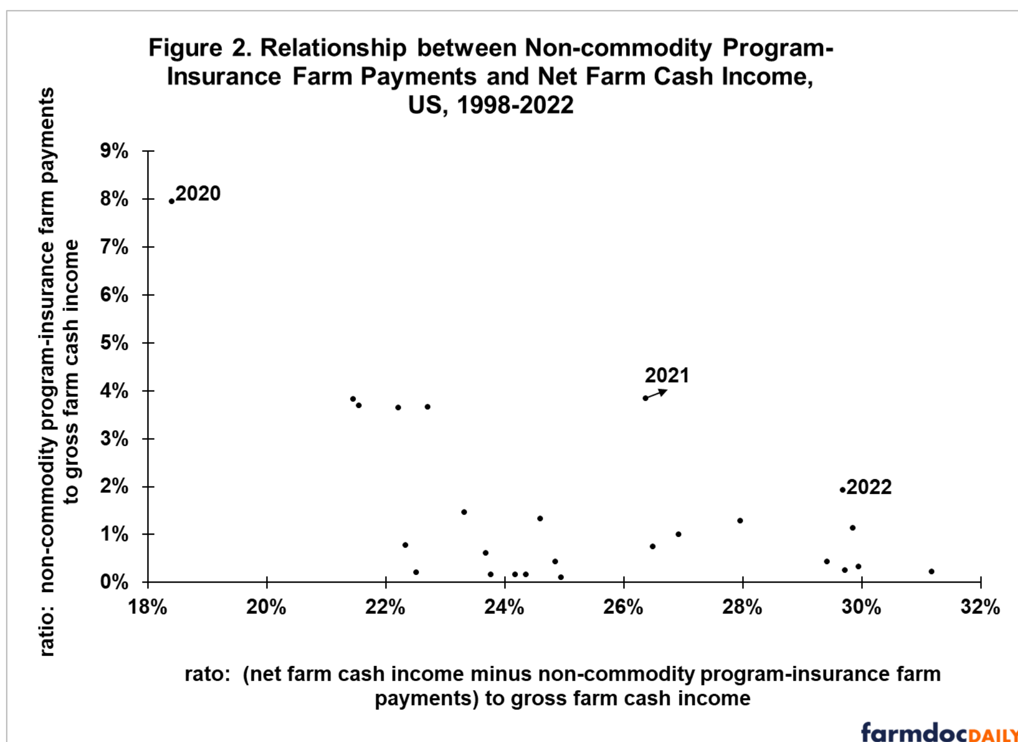


Countercyclical Payments

Figure 2 examines the relationship between non-commodity program-insurance farm payments and net farm cash income. To account for increasing values over time, both are expressed as a ratio to gross farm cash income. US farm sector net cash and gross cash income are used instead of a subset, such

as field crop or program crop income, because this assistance has been provided to a broad array of farm commodities, including fruits, vegetables, nuts, animals, and animal products.

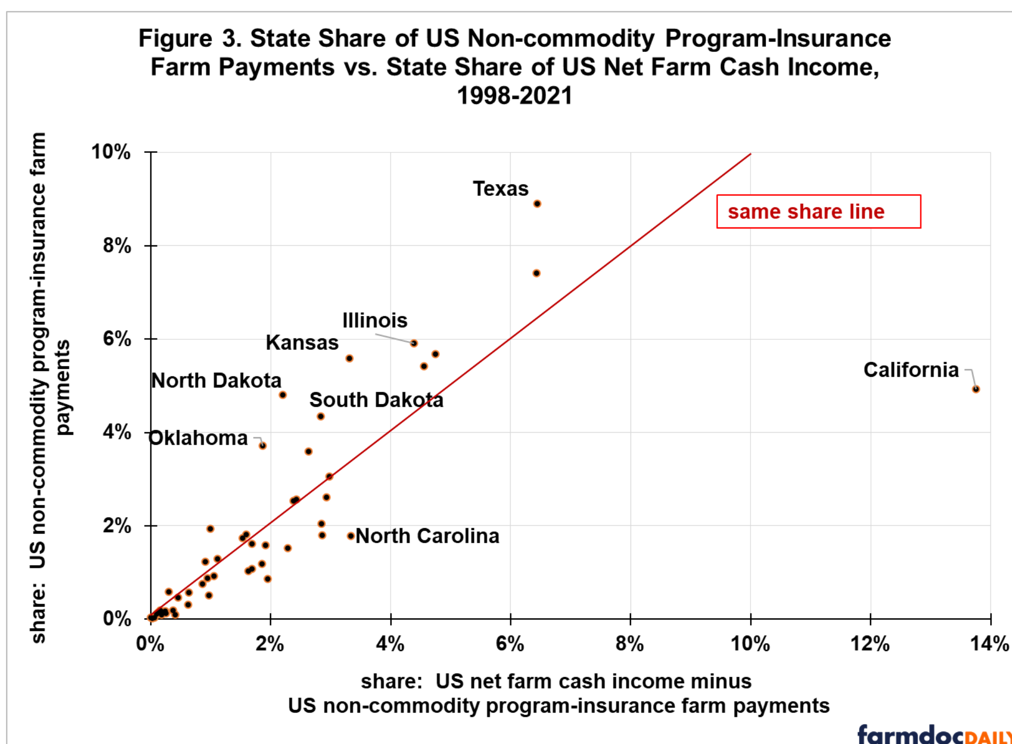
The ratio of (non-commodity program-insurance payments) to (gross farm cash income) has been highest when the ratio of (net farm cash income excluding non-commodity program-insurance payment) to (gross farm cash income) has been lowest. These payments have thus been countercyclical to adjusted net farm cash income. Regression analysis finds this countercyclical feature to be significant with 99% statistical confidence whether the large payment year of 2020 is included or excluded (see Data Note 1). Non-commodity program-insurance farm payments averaged 4.6% of gross farm cash income in 2020-2022 vs. 1.2% over 1998-2019. A question of interest is whether such future assistance will follow the 2020-2022 or pre-2020 path.



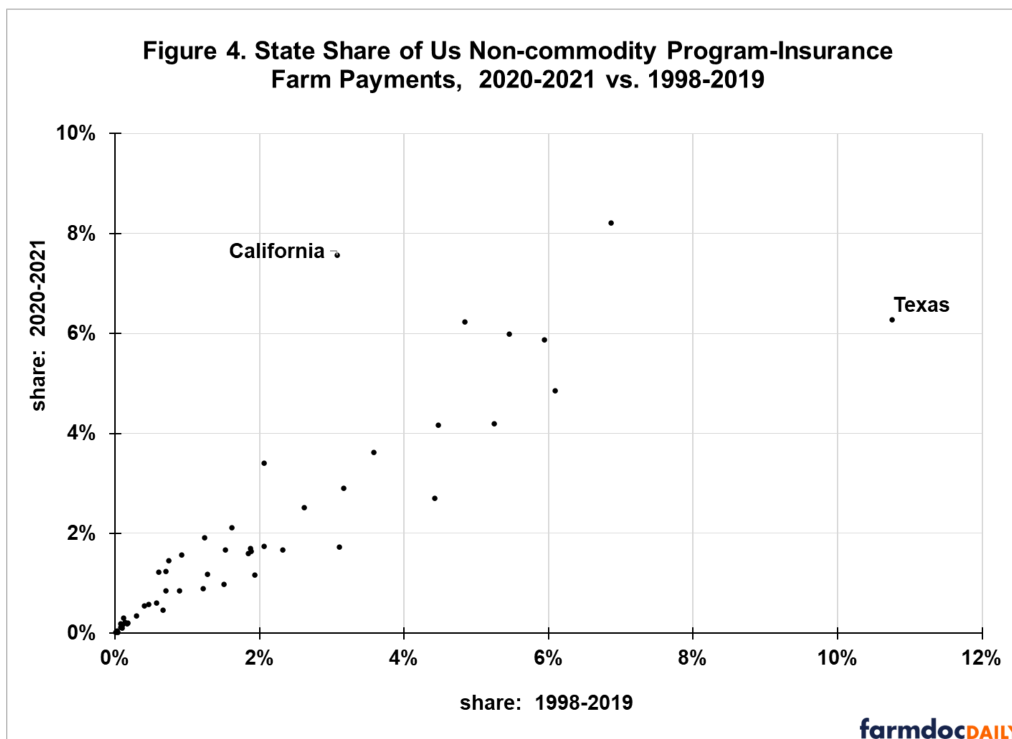
State Shares

Texas (8.9%) and Iowa (7.4%) received the largest share of non-commodity program-insurance payments between 1998 and 2021 (see Figure 3, vertical axis). The next state is Illinois with a 5.9% share.

State share of non-commodity program-insurance farm payments and state share of US net farm cash income minus these payments (hereafter, adjusted net cash income) are positively related (see Figure 3). Their correlation is +0.76. State share of adjusted net cash income thus explains 58% (0.76 squared) of the variation in state share of these payments. For the states identified in Figure 3, the two shares differ by more than one standard deviation or 1.5 percentage points (pp). California has by far the largest difference: 8.8 pp (4.9% of US payments vs.13.8% of US adjusted net cash income). North Carolina is the only other state whose share of payments is more than 1.5 pp smaller than its share of adjusted net cash income, specifically 1.6 pp smaller. Except for Illinois, the states whose share of payments exceed their share of adjusted net farm cash income by 1.5 pp or more are in the US plains. This area is often characterized as having a higher risk for crop production.



A comparison of state shares of non-commodity program-insurance payments for 2020-2021 vs. 1998-2019 finds a strong relationship and two striking outliers (see Figure 4). California's share in 2020-2021 is more than double its 1998-2019 share (7.6% vs. 3.1%). Texas' share in 2020-2021 is 4.5 pp smaller (6.3% vs. 10.8%). If California and Texas are removed, state share of payments in 1998-2019 explains 90% of state share in 2020-2021. The slope coefficient is +0.95. It does not differ statistically from +1.0. This finding implies that, when California and Texas are excluded, the distribution of non-commodity program-insurance farm payments across states as a group did not differ during the period of COVID pandemic assistance from the period before COVID assistance.



Discussion

Farm production related payments outside of price and income support programs and crop insurance have been a substantial, ongoing feature of the US farm safety net since 1998.

The distribution of non-commodity program-insurance payments across states generally follows the distribution of US farm production across states, although exceptions exist.

These payments have also been countercyclical to net farm return, a description often applied to Title 1 commodity programs.

The continued presence of these payments, which includes large *ad hoc* farm payments, is at odds with a common farm policy storyline / objective dating to the early 1980s that crop insurance would replace *ad hoc* farm assistance. Crop insurance has not eliminated *ad hoc* assistance. It has however likely reduced it. Lack of an increase in *ad hoc* assistance during the severe drought of 2012 supports this implication (see Figure 1).

Historical experience suggests the primary policy response to large farm assistance expenditures outside commodity and crop insurance programs has been for Congress to capture them by creating new or redesigning existing commodity and crop insurance programs. See the *farmdoc daily* article of July 29, 2020 for a discussion of this experience and its implications.

The primary concerns expressed about assistance outside of price and income support programs and crop insurance are its uncertain timing and amount. The concern about timing is consistent with experience. *Ad hoc* assistance in particular generally comes after the event causing stress, sometimes well after the event. However, the large non-commodity program-insurance farm payments since 1998 suggests the concern about amount is likely less than the rhetoric suggests.

A potential reinforcing cycle of increasing assistance is possible. Members of Congress like to be seen as being responsive to stress-inducing events. It is a natural human response. However, if large assistance outside of standing program assistance is turned into higher standing assistance, the next stress-inducing event will likely lead to new, non-standing program assistance, which may subsequently be turned into higher standing assistance. And, so on. Reinforcing cycles need to be carefully assessed as their outcome can be unsustainable, even destabilizing.

The preceding points prompt this question: “Is it time to accept non-commodity program-insurance farm payments as a third pillar of the US farm safety net, along with commodity programs and insurance?” This article suggests the answer is “yes.”

If the policy process determines that the answer is indeed “yes,” the following question arises: “What does good policy suggest should be the dividing lines between standing programs, such as crop insurance and commodity programs, and other farm production related assistance?” Stated alternatively, “What should be their unique, non-overlapping roles and design?”

In light of the continuing, large presence of non-commodity program-insurance farm payments and given the importance of the two questions posed above, it may be appropriate for the next farm bill to authorize a panel of farm safety net experts and actors to give thought to these foundational farm safety net questions.

Data Note

The regression equation for 1998-2022 is: (ratio of (non-commodity program-insurance farm payments) to (gross farm cash income)) = +0.09 – 0.30 (ratio of (adjusted net farm cash income) to (gross farm cash income)) + 0.03 (dummy variable for 2020-2022). The regression coefficients when 2020 is excluded are +0.07, – 0.23, and +.02, respectively. All coefficients and equations are significant with 99% statistical confidence except for the dummy variable in the equation excluding 2020. It is significant with 98% statistical confidence. Explanatory power was 63% for the 1998-2022 equation and 37% for the equation excluding 2020.

References and Data Sources

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