

# The Truth About the Current Farm Economy

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## KEY TAKEAWAYS

Many stories about the farm economy paint a bleak and misleading picture and are often used to make the case for more farm subsidies.

In general, the current farm economy stacks up well against historical measures.

Policymakers should, at most, provide farm subsidies in response to crop losses due to disasters—not to insulate farmers from market competition.

Recently, there has been a seemingly endless stream of stories regarding the farm economy<sup>1</sup>—a picture of how farms are doing financially.<sup>2</sup> The stories usually paint a bleak picture and are often used to make the case for more taxpayer-funded handouts (including trade aid) to farmers.

The reality of the farm economy is much different than what is being portrayed. In general, the current farm economy stacks up well against historical measures. As with any year, this does not mean that all farmers are doing well.

This *Issue Brief* lays out important farm-economy data to help provide proper context and background on the actual condition of the farm economy. It is a snapshot of current conditions. As legislators make policy decisions regarding agriculture, they should at least have a clear and truthful picture to guide them.

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This paper, in its entirety, can be found at <http://report.heritage.org/ib5027>

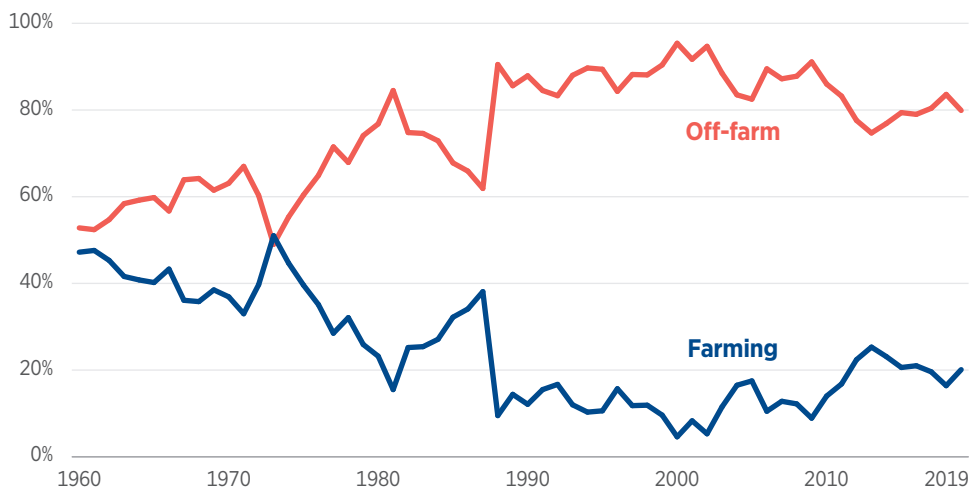
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CHART 1

## Farm Income Is a Small Percentage of Average Farm Household Income

INCOME SOURCE AS SHARE OF TOTAL INCOME



**NOTE:** Figures for 2019 are forecasts.

**SOURCES:** Authors' calculations are based on data from: U.S. Department of Agriculture, "Mean and Median Farm Operator Household Income and Ratio of Farm Household to US Household Income, 1960-2018," Economic Research Service, <https://www.ers.usda.gov/data-products/farm-household-income-and-characteristics/> (accessed January 15, 2020), and U.S. Department of Agriculture, "Principle Farm Operator Household Finances, 2014-2019F," Economic Research Service, <https://www.ers.usda.gov/data-products/farm-household-income-and-characteristics/> (accessed January 15, 2020).

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## Net Farm Income and Government Payments

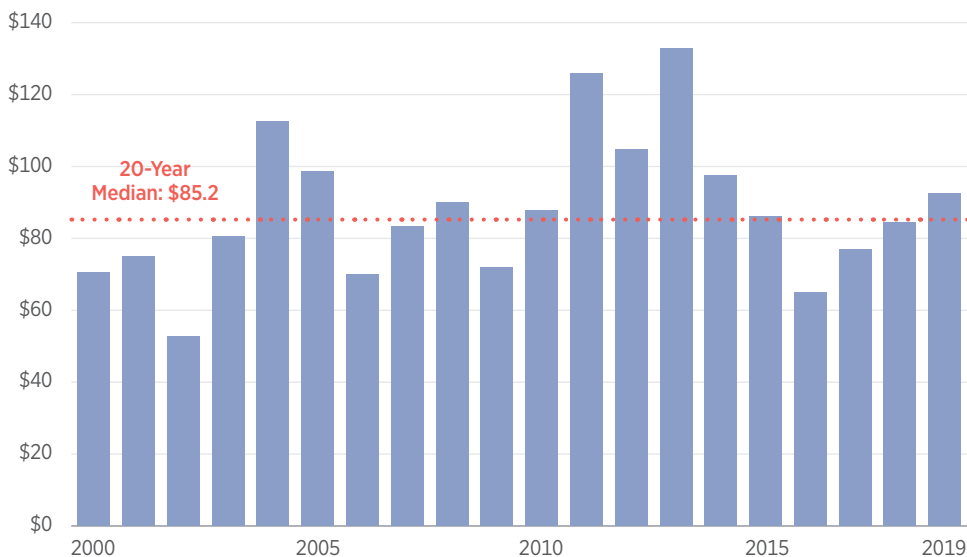
One commonly used measure of the farm economy is net farm income. As defined by the U.S. Department of Agriculture (USDA), this measure "reflects income after expenses from production in the current year" and "is calculated by subtracting farm expenses from gross farm income."<sup>3</sup>

There are some important clarifications to make about net farm income. It does not refer to the net income of farmers; instead, it is a measure of net income from farming. This distinction may seem trivial, but it is critical because most farmers receive a small percentage of their household income from farming. In fact, over the past few years, on average, only about 20 percent of farm household income comes from farming, while 80 percent of farm household income comes from off-farm sources. (See Chart 1 for historical data showing how farm income has become a much smaller percentage of average farm household income.)<sup>4</sup>

CHART 2

## Projected Net Farm Income for 2019 Is Above 20-Year Median

IN BILLIONS OF DOLLARS



**NOTE:** All data are in real 2019 dollars. Figure for 2019 is projected.

**SOURCES:** Authors’ calculations based on data from U.S. Department of Agriculture, “Farm Income and Wealth Statistics: Value Added Years by State,” Economic Research Service, 2000–2019, <https://data.ers.usda.gov/reports.aspx?ID=17830> (accessed January 15, 2020).

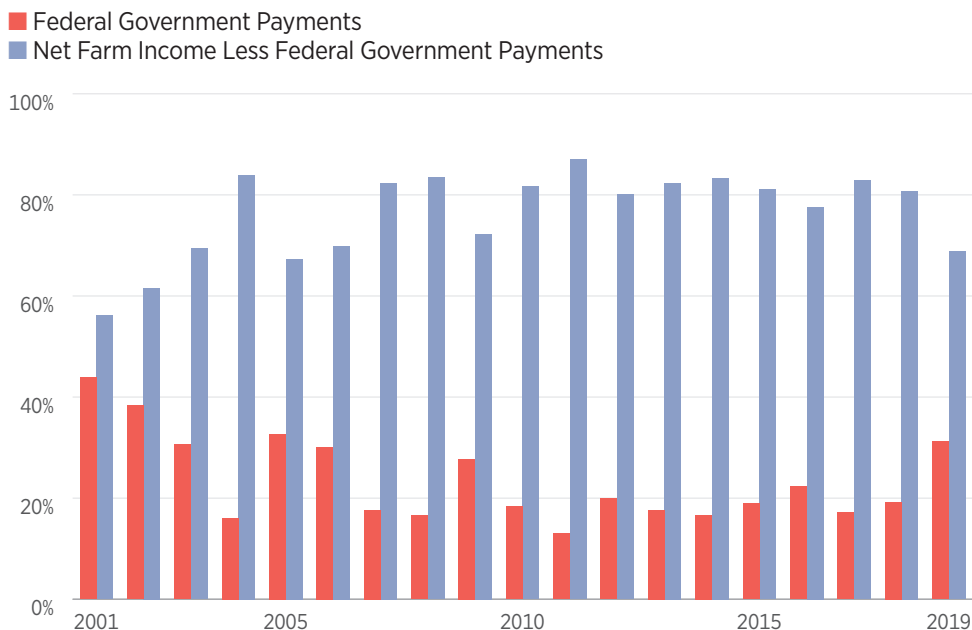
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To provide further context, it is important to recognize that the USDA has a very generous definition of what it means to be a farm: A farm is “any place that produced and sold—or normally would have produced and sold—at least \$1,000 of agricultural products during a given year.”<sup>5</sup> Based on the latest Census of Agriculture (2017), 56 percent of farms in the United States had less than \$10,000 in sales.<sup>6</sup> In effect, about half of all farms are what most people would consider to be hobby farms. Further, 76 percent of U.S. farms had sales less than \$50,000; these farms accounted for only 3 percent of agricultural product sales.<sup>7</sup>

Net farm income is projected to be \$92.5 billion for 2019.<sup>8</sup> This total is above the 20-year median of \$85.2 billion.<sup>9</sup> As Chart 2 shows, 2013 was a particularly high year for net farm income. In fact, in nominal terms, it was a record year<sup>10</sup> and a near-record high in real terms (2019 dollars).<sup>11</sup> There is frequent cherry-picking with net farm income data. For instance, frequent reports on net farm income make reference to how current net farm income compares unfavorably to this extremely high year—to make any new number sound low.<sup>12</sup>

CHART 3

## Federal Government Payments as a Percentage of Net Farm Income



**NOTE:** See Appendix Table 1 for expanded data. All data are in real 2019 dollars. Figures for 2019 are projected.

**SOURCES:** Authors' calculations based on data from: U.S. Department of Agriculture, "Summary of Business," Risk Management Agency, 2001–2018, <https://prodwebnlb.rma.usda.gov/apps/SummaryofBusiness/HistoricalReports> (accessed January 15, 2020), and U.S. Department of Agriculture, "Farm Income and Wealth Statistics: Value Added Years by State," Economic Research Service, <https://data.ers.usda.gov/reports.aspx?ID=17830> (accessed January 15, 2020).

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## Federal Payments as a Percent of Net Farm Income

There has been a recent focus on the large percentage of projected net farm income in 2019 made up of federal government payments.<sup>13</sup> This number can be used to demonstrate that net farm income is not as good as it seems. Ironically, a counter-narrative uses this number to show how out-of-hand farm subsidies have become for farmers.

As shown in Chart 3, the projected data for 2019 does show a significant percentage (31 percent)<sup>14</sup> of government payments accounting for part of net farm income (about \$14 billion comes from trade aid).<sup>15</sup> When looking at the past 19 years (the years for which data are available), it is one of the higher percentages, but it is not particularly unusual. In fact, in 2001,

2002, and 2005, federal payments accounted for a greater percentage of net farm income.<sup>16</sup>

This fact does not mean that the scope of government payments in 2019 is appropriate. It is excessive, but so too is the amount of farm handouts in general. Agricultural producers are more than capable of managing agricultural risk without taxpayer assistance; this is especially true for handouts that insulate farmers from competing in the marketplace.

## Farm Household Income and Wealth

The myth of the struggling farmer is a constant narrative that continues to this day. However, this is not the 1940s, when farm household income was on average half that of non-farmers.<sup>17</sup>

Farm households have much greater income and wealth than non-farm households. In 2018, median farm household income was 15 percent greater than median non-farm household income, and median farm household wealth was a staggering *8.7 times* greater than median non-farm household wealth.<sup>18</sup>

## Financial Ratios

Two extremely important measures of the financial health of farms are the debt-to-asset and debt-to-equity ratios (comparisons of debt to assets and equity).<sup>19</sup> These measures help to indicate the solvency of the farms; the higher the ratios, the greater the financial vulnerability. As shown in Chart 4, the ratios remain extremely low and are projected for 2019 to be 13.4 percent and 15.5 percent respectively.<sup>20</sup>

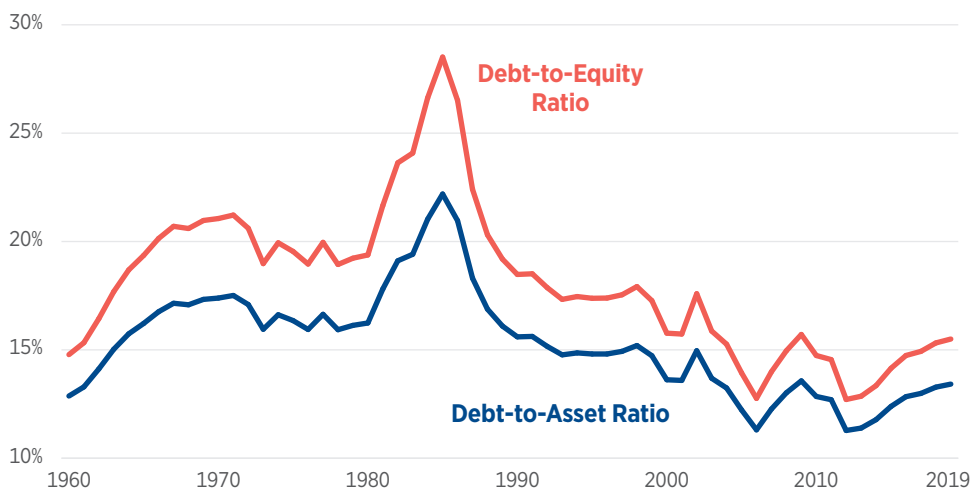
The University of Minnesota's Center for Farm Financial Management has helpful information to evaluate financial ratios in agriculture. A strong debt-to-asset ratio is less than 30 percent, and a strong debt-to-equity ratio is less than 43 percent.<sup>21</sup> As Chart 4 shows, the ratios have not come close to exceeding these levels over the entire 60 years examined.

## Farm Bankruptcy Rates

To capture the bankruptcy rates of farms, the USDA utilizes the number of Chapter 12 filings per year.<sup>22</sup> Chapter 12 is a special chapter of the Bankruptcy Code just for farmers, although they can use other chapters.

CHART 4

## Key Farm Sector Debt Ratios Remain Low



**NOTE:** Figure for 2019 is projected.

**SOURCE:** U.S. Department of Agriculture, “Farm Income and Wealth Statistics: Farm Sector Financial Ratios,” Economic Research Service, 1960–2019, <https://data.ers.usda.gov/reports.aspx?ID=17838&AspxAutoDetectCookieSupport=1> (accessed January 15, 2020).

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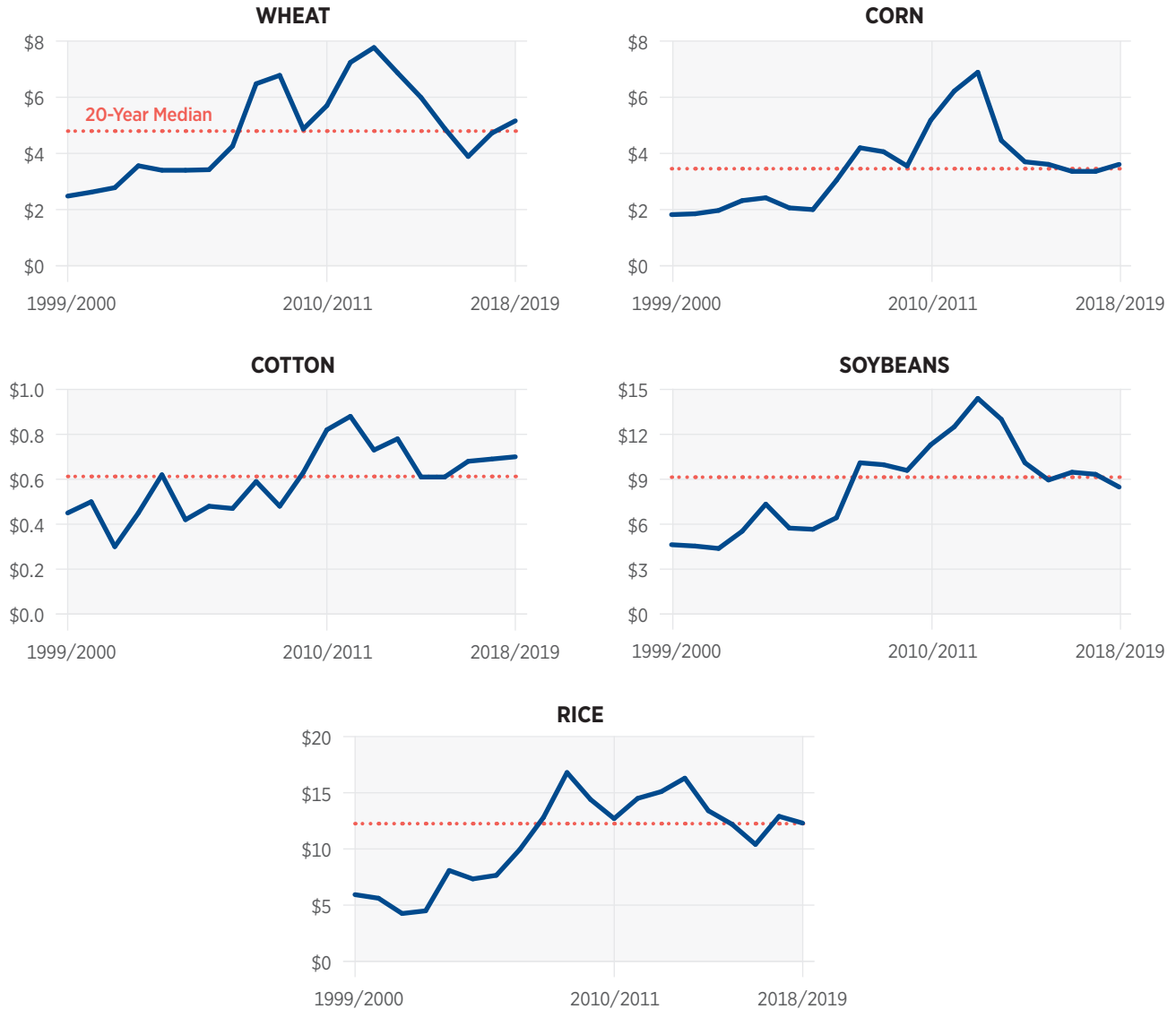
Farm bankruptcies are receiving media attention, yet, as explained by Robert Johansson, the USDA’s Chief Economist, “[n]ationally the rate of bankruptcy per 10,000 farms remains low—sitting at approximately 2.35 bankruptcies per 10,000 farms [in 2018], lower than the 3 bankruptcies we saw in [the] 2010–2012 period.”<sup>23</sup> As a percentage, the 2018 bankruptcy rate is just two one-hundredths of a percent.<sup>24</sup>

## Commodity Prices

Another frequent concern expressed about the farm economy is low commodity prices. Chart 5 shows prices for five major commodities (corn, cotton, rice, soybeans, and wheat)<sup>25</sup> over the past 20 years and compares those prices to the 20-year median price.<sup>26</sup> As shown, the prices are not unusually low, and, in fact, they are all above the median price, except for soybean prices, which are slightly below the median.

CHART 5

## Key Agricultural Commodity Prices Near or Above 20-Year Median



**NOTES:** For wheat, corn, and soybeans, figures are in dollars per bushel. For cotton, figures are in dollars per pound. For rice, figures are in dollars per hundredweight (CWT). 2018/2019 figures are estimates.

**SOURCES:** Authors' calculations based on data from:

- U.S. Department of Agriculture, "Quick Stats," National Agricultural Statistics Service, 1999–2018, <https://quickstats.nass.usda.gov/> (accessed January 15, 2020).
- U.S. Department of Agriculture, "Wheat Data," Economic Research Service, excel file: Wheat Data-All Years, Table 18, 1999–2018, <https://www.ers.usda.gov/data-products/wheat-data/> (accessed January 15, 2020).
- U.S. Department of Agriculture, "Feeds Grains Customs Query," Economic Research Service, 1999–2018, <https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx?AspxAutoDetectCookieSupport=1> (accessed January 15, 2020).
- U.S. Department of Agriculture, "Cotton and Wool Yearbook," "U.S. and World Prices," Economic Research Service, 1999–2018, <https://www.ers.usda.gov/data-products/cotton-wool-and-textile-data/cotton-and-wool-yearbook/> (accessed January 15, 2020).
- U.S. Department of Agriculture, World Agricultural Supply and Demand Estimates, December reports for 1999–2018, <https://www.usda.gov/oce/commodity/wasde/> (accessed January 15, 2020).

## Trade

There is arguably no issue in agriculture getting more attention than agricultural trade. Recent trade disputes, including the current trade fight with China, have rightfully garnered significant attention.

Yet the total agricultural export data currently does not show the level of harm that might be expected from the trade dispute with China. Total agricultural exports (based on fiscal year data) were \$135.6 billion in 2019.<sup>27</sup> While agricultural exports in 2019 were lower than the immediate years prior to the recent trade disputes—in both 2017 and 2018, exports were valued at around \$144 billion—the value is comparable to 2016, when exports were \$135.5 billion.<sup>28</sup>

Still, total exports would almost certainly be higher if there was no trade dispute with China. This trade dispute has also clearly impacted the number of U.S. agricultural exports to China. These exports took a nosedive from \$22.4 billion in 2017 to \$16.3 billion in 2018, a 27 percent<sup>29</sup> decline in just one year. From 2017 to 2019, agricultural exports to China have declined by almost 55 percent, from \$22.4 billion to \$10.1 billion, respectively.<sup>30</sup> These drops have resulted in China falling from the largest agricultural export market for the United States in 2017 to the fourth-largest in 2019 (based on fiscal year data).<sup>31</sup> Further, these numbers do not reflect the long-term damage that might be caused as a result of the dispute.

This negative impact on agricultural exports to China could be alleviated due to a recently announced agreement with China. On January 15, 2020, the United States and China signed a Phase One agreement,<sup>32</sup> which included commitments from China to increase purchases of agricultural products.<sup>33</sup> However, it is still unclear whether and to what extent there will be increased purchases.

## Recommendations

When policymakers examine farm economy data, they should take a step back and recognize that federal government intervention is unjustified regardless of the state of the farm economy (i.e., the financial health of farms)—and certainly not when the farm economy is on par with historical measures, as it is now. Taxpayers should not be expected to simply help agricultural producers who are just not doing as well financially as they would prefer. After all, what other sectors of the economy expect regular taxpayer handouts when they are not making as much money as they would like?



The federal government does not need to insulate farmers from competing in the marketplace. For those farms that receive federal assistance to help when prices drop or that fail to meet revenue targets, they are as capable of competing as any other business without such assistance. While farm subsidies are not necessary in general, at most, federal intervention should be limited to situations when there are significant crop losses connected to disasters.

Also, as policymakers examine farm economy data, they should be mindful of the scare tactics and cherry picking that are often used to justify government intervention. For that matter, regardless of who is providing the data (those who want more or less government intervention), policymakers should ensure that the data they are being provided are presented with proper context so that an accurate picture of the health of farms can be ascertained.

## Conclusion

Congress has a long history of providing handouts to agricultural producers when they clamor for assistance, even if the assistance is duplicative or there is little or no economic justification. Recently, there seems to be no limit to the federal handouts provided to agricultural producers (for example, multiple subsidy programs, disaster assistance, and trade aid). These decisions to provide this money to producers are often a function of legislators responding to claims made regarding the farm economy. Legislators who, unfortunately, think it is appropriate to provide money to farmers in response to the farm economy,<sup>34</sup> should at least ensure that they have an accurate assessment of existing conditions. Taxpayers, consumers, and farmers deserve nothing less.

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APPENDIX TABLE 1

## Federal Government Payments as a Percentage of Net Farm Income

Year	Net Farm Income	Federal Government Payments	Net Farm Income Less Federal Government Payments	Federal Government Payments as a Percentage of Net Farm Income
2001	\$74,848,407,486	\$32,827,584,222	\$42,020,823,264	43.9%
2002	\$52,687,971,329	\$20,216,456,256	\$32,471,515,073	38.4%
2003	\$80,504,085,647	\$24,659,136,665	\$55,844,948,982	30.6%
2004	\$112,612,463,494	\$18,081,882,884	\$94,530,580,610	16.1%
2005	\$98,656,320,842	\$32,231,887,108	\$66,424,433,734	32.7%
2006	\$70,038,457,309	\$21,069,515,528	\$48,968,941,781	30.1%
2007	\$83,260,324,718	\$14,660,576,744	\$68,599,747,974	17.6%
2008	\$90,087,733,000	\$14,957,613,423	\$75,130,119,577	16.6%
2009	\$71,904,291,962	\$19,959,348,073	\$51,944,943,890	27.8%
2010	\$87,644,418,541	\$16,052,623,599	\$71,591,794,941	18.3%
2011	\$125,874,378,924	\$16,403,723,217	\$109,470,655,708	13.0%
2012	\$104,845,086,857	\$20,923,291,969	\$83,921,794,887	20.0%
2013	\$132,717,295,775	\$23,428,140,050	\$109,289,155,725	17.7%
2014	\$97,510,133,927	\$16,221,417,427	\$81,288,716,499	16.6%
2015	\$86,062,891,393	\$16,316,278,218	\$69,746,613,176	19.0%
2016	\$65,018,162,639	\$14,529,711,573	\$50,488,451,066	22.3%
2017	\$77,051,144,114	\$13,197,190,770	\$63,853,953,344	17.1%
2018	\$84,393,047,541	\$16,250,943,931	\$68,142,103,610	19.3%
2019	\$92,539,805,000	\$28,891,503,000	\$63,648,302,000	31.2%

**NOTE:** All data are in real 2019 dollars. Figures for 2019 are projected.

**SOURCES:** Authors' calculations based on data from: U.S. Department of Agriculture, "Summary of Business," Risk Management Agency, 2001-2018, <https://prodwebnlb.rma.usda.gov/apps/SummaryofBusiness/HistoricalReports> (accessed January 15, 2020), and U.S. Department of Agriculture, "Farm Income and Wealth Statistics: Value Added Years by State," Economic Research Service, <https://data.ers.usda.gov/reports.aspx?ID=17830> (accessed January 15, 2020).

## Endnotes

1. This is certainly not a new phenomenon. In fact, it is all too common.
2. The farm economy should not be confused with the rural economy.
3. U.S. Department of Agriculture, "Farming and Farm Income," Economic Research Service, updated January 10, 2020, <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income/> (accessed January 15, 2020).
4. The 20 percent number for farm income is a snapshot based on the past few years. In 2017 and 2019 (forecast), the percentage was 20 percent, while in 2018 it was 16 percent. To provide additional context, based on the 20-year median, 16.5 percent of average farm-household income comes from farm income. From 2000 to 2011, this percentage was lower, with a median of around 12 percent. In the past eight years, from 2012, the percentage of average farm-household income coming from farm income has increased, with a median of almost 21 percent. Calculations by authors. See U.S. Department of Agriculture, "Mean and Median Farm Operator Household Income and Ratio of Farm Household to US Household Income, 1960–2018," Economic Research Service, November 27, 2019, <https://www.ers.usda.gov/webdocs/DataFiles/48870/table13.xlsx?v=1723.4> (accessed January 15, 2020) (data set utilized is from 1960–2018). For 2019 forecast data, see U.S. Department of Agriculture, "Principle Farm Operator Household Finances, 2014–2019F," Economic Research Service, November 27, 2019, <https://www.ers.usda.gov/webdocs/DataFiles/48870/table01.xls?v=4983.9> (accessed January 15, 2020). See also Vincent Smith, Joseph Glauber, Barry Goodwin, and Daniel Sumner, "Agricultural Policy in Disarray: Reforming the Farm Bill; An Overview," American Enterprise Institute, October 2017, <https://www.aei.org/wp-content/uploads/2017/10/Agricultural-Policy-in-Disarray.pdf> (accessed January 15, 2020).
5. See, for example, U.S. Department of Agriculture, "Farm Structure," Economic Research Service, August 20, 2019, <https://www.ers.usda.gov/topics/farm-economy/farm-structure-and-organization/farm-structure/> (accessed January 15, 2020).
6. See, for example, U.S. Department of Agriculture, "Summary by Size of Farm: 2017," National Agricultural Statistics Service, table 71, p. 90, [https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1\\_Chapter\\_1\\_US/st99\\_1\\_0071\\_0071.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_1_US/st99_1_0071_0071.pdf) (accessed January 15, 2020).
7. Ibid., and U.S. Department of Agriculture, "2017 Census of Agriculture Highlights: Farm Economics Value of Production, Number of Farms, and Income Down Slightly," National Agricultural Statistics Service, April 2019, [https://www.nass.usda.gov/Publications/Highlights/2019/2017Census\\_Farm\\_Economics.pdf](https://www.nass.usda.gov/Publications/Highlights/2019/2017Census_Farm_Economics.pdf) (accessed January 15, 2019).
8. U.S. Department of Agriculture, "Value Added to the U.S. Economy by the Agricultural Sector: 2010–2019F," Economic Research Service, November 27, 2019, <https://data.ers.usda.gov/reports.aspx?ID=17830> (accessed January 15, 2020).
9. Calculations by authors, and U.S. Department of Agriculture, "Value Added to the U.S. Economy by the Agricultural Sector: 2010–2019F."
10. Randy Schnepf, "U.S. Farm Income Outlook for 2018," Congressional Research Service *Report for Congress*, December 11, 2018, <https://fas.org/spp/crs/misc/R45117.pdf> (accessed January 15, 2020).
11. Calculations by authors, and U.S. Department of Agriculture, "Value Added to the U.S. Economy by the Agricultural Sector: 2010–2019F."
12. See, for example, Keith Good, "Net Farm Income Down Almost 50 Percent: Ag. Sec. Perdue Tells House Ag," AgFax, February 28, 2019, <https://agfax.com/2019/02/28/net-farm-income-down-almost-50-ag-sec-perdue-tells-house-ag/> (accessed January 15, 2020), and Vegetable Growers News, "Senate Farm Bill Clears Committee With 20–1 Vote," June 13, 2018, <https://vegetablegrowersnews.com/news/senate-farm-bill-clears-committee-with-20-1-vote/> (accessed January 15, 2020).
13. See, for example, Keith Good, "2019 Farm Sector Income Forecast, November," Illinois Farm Policy News, December 2, 2019, <https://farmpolicynews.illinois.edu/2019/12/2019-farm-sector-income-forecast-november/> (accessed January 15, 2020), and P. J. Huffstutter, "U.S. Farm Income Expected to Rise in 2019, But Only Because of Government Aid," Reuters, November 27, 2019, <https://www.reuters.com/article/usda-farming/u-s-farm-income-expected-to-rise-in-2019-but-only-because-of-government-aid-idUSL1N28714L> (accessed January 15, 2020).
14. Calculations by authors. In order to calculate the percentage of net farm income made up of federal government payments, the authors included both crop insurance data and direct government payments (as defined by the USDA; includes the recent trade aid). See U.S. Department of Agriculture, "Federal Government Direct Farm Payment Programs, 2010–2019F," Economic Research Service, November 27, 2019, <https://data.ers.usda.gov/reports.aspx?ID=17833> (accessed January 15, 2020). The crop insurance data is from the USDA Risk Management Agency and only goes back to 2001. The following is the formula: (direct government payments [from USDA ERS] + net indemnities [from USDA Risk Management Agency])/ net farm income. Federal insurance indemnity and premium data was calculated using Summary of Business data from USDA Risk Management Agency, using the latest December report for each year. In order to calculate the federal insurance indemnities, for example, using 2007, "1 Year Ago to Date 2007" must be subtracted from "Crop Year to Date 2007"; "1 Year Ago to Date 2006" must be subtracted from "Crop Year to Date 2006"; these two net numbers must be added to "2008 Crop Year to Date" to get the total for 2007 insurance indemnities. To calculate federal commodity insurance premiums, the same methodology applies to "total premium" and "subsidy," but to get net premium, "subsidy" must be subtracted from "total premium." Net premium shows how much in premiums farmers pay for crop insurance. Following this, in order to get net indemnities, the net premium must be subtracted from "indemnity." This net indemnity number is the amount that farmers receive for crop insurance after taking into account what they paid into the program, which must be added to the "direct government payments" data the USDA Economic Research Service (ERS) provides in order to get a better picture of total government payments received by farmers. The 2019 data is forecasted by the USDA ERS. See U.S. Department of Agriculture, "Summary of Business, 2001–2018," Risk Management Agency, <https://prodwebnbl.rma.usda.gov/apps/SummaryofBusiness/HistoricalReports> (accessed January 15, 2020), and U.S. Department of Agriculture, "Value Added to the U.S. Economy by the Agricultural Sector: 2010–2019F."

15. U.S. Department of Agriculture, "Federal Government Direct Farm Payment Programs, 2010–2019F,"
16. Calculations by authors, and U.S. Department of Agriculture, "Value Added to the U.S. Economy by the Agricultural Sector: 2010–2019F."
17. U.S. Department of Agriculture, "A Safety Net for Farm Households," Economic Research Service *Agricultural Economic Report* No. 788 (October 2000), p. 3, [https://www.ers.usda.gov/webdocs/publications/41144/32273\\_aer788\\_002.pdf?v=0](https://www.ers.usda.gov/webdocs/publications/41144/32273_aer788_002.pdf?v=0) (accessed January 15, 2020).
18. U.S. Department of Agriculture, "Mean and Median Farm Operator Household Income and Ratio of Farm Household to U.S. Household Income, 1960–2018," Economic Research Service, <https://www.ers.usda.gov/webdocs/DataFiles/48870/table13.xlsx?v=1723.4> (accessed January 15, 2020); U.S. Department of Agriculture, "America's Diverse Family Farms," Economic Research Service *Economic Information Bulletin* No. 214, December 2019, <https://www.ers.usda.gov/webdocs/publications/95547/eib-214.pdf?v=9906.4> (accessed January 15, 2020); and U.S. Department of Agriculture, "Income and Wealth in Context," Economic Research Service, November 27, 2019, <https://www.ers.usda.gov/topics/farm-economy/farm-household-well-being/income-and-wealth-in-context/> (accessed January 15, 2020).
19. To learn more about these ratios, see U.S. Department of Agriculture, "Documentation for the Farm Sector Financial Ratios," Economic Research Service, August 30, 2019, <https://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/documentation-for-the-farm-sector-financial-ratios/> (accessed January 15, 2020), and University of Minnesota Extension, "Ratios and Measurements in Farm Finance," 2018, <https://extension.umn.edu/farm-finance/ratios-and-measurements#solvency-796061> (accessed January 15, 2020).
20. U.S. Department of Agriculture, "Farm Sector Financial Ratios, 2010–2019F," Economic Research Service, November 27, 2019, <https://data.ers.usda.gov/reports.aspx?ID=17838&AspxAutoDetectCookieSupport=1> (accessed January 15, 2019).
21. University of Minnesota Extension, "Ratios and Measurements in Farm Finance."
22. Robert Johansson, "The Outlook for U.S. Agriculture—2019: Growing Locally, Selling Globally," U.S. Department of Agriculture, presentation at the 95th Agricultural Outlook Forum, February 21–22, 2019, [https://www.usda.gov/oce/forum/past\\_programs/2019/speeches/Johansson\\_Speech.pdf](https://www.usda.gov/oce/forum/past_programs/2019/speeches/Johansson_Speech.pdf) (accessed January 15, 2020).
23. Ibid.
24. Ibid.
25. According to the Congressional Research Service, these commodities were the top five commodities in terms of farm program support for 2014–2016. Randy Schnepf, "Farm Safety-Net Payments Under the 2014 Farm Bill: Comparison by Program Crop," Congressional Research Service *Report for Congress*, August 11, 2017, p. 15, <https://fas.org/sgp/crs/misc/R44914.pdf> (accessed January 15, 2020).
26. U.S. Department of Agriculture, "Quick Stats," National Agricultural Statistics Service, <https://quickstats.nass.usda.gov/> (accessed January 15, 2020) (criteria used: survey, crops, rice, soybeans, price received, price received measured in \$ per pound, \$ per hundredweight [cwt], \$ per bushel, national, U.S. total, 1999–2018); U.S. Department of Agriculture, "Wheat Data," table 18, "Wheat Data-All Years," 1999–2018, Economic Research Service, <https://www.ers.usda.gov/webdocs/DataFiles/54282/Wheat%20Data-All%20Years.xls?v=7581.1> (accessed January 15, 2020); U.S. Department of Agriculture, "Feeds Grains Customs Query," Economic Research Service, <https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx?AspxAutoDetectCookieSupport=1> (accessed January 15, 2020) (criteria: corn, United States, prices received by farmers, annual, 1999–2018, dollars per bushel); and U.S. Department of Agriculture, "Cotton and Wool Yearbook," Economic Research Service, table 11, "U.S. Upland Cotton Farm, Spot, and Mill Prices, 1999/00–2018/19," <https://www.ers.usda.gov/webdocs/DataFiles/48516/CottonPrices.xls?v=2608> (accessed January 15, 2020). See also U.S. Department of Agriculture, "World Agricultural Supply and Demand Estimates," Office of the Chief Economist, <https://www.usda.gov/oce/commodity/wasde/> (accessed January 15, 2020) (1999–2000 to 2018–2019 data; December reports). Please note that 2018–2019 vs are estimates.
27. U.S. Department of Agriculture, "Global Agricultural Trade System," Foreign Agricultural Service, <https://apps.fas.usda.gov/gats/ExpressQuery1.aspx> (accessed January 15, 2020) (criteria used: FAS U.S. Trade, Exports, BICO [HS-6], World Total, Agricultural Total, "Value": Dollars, Annual, October–September, 2016–2019, "End Month": September).
28. In real 2019 dollars and based on fiscal years, and U.S. Department of Agriculture, "Global Agricultural Trade System," Foreign Agricultural Service, <https://apps.fas.usda.gov/gats/ExpressQuery1.aspx> (accessed January 15, 2020) (criteria used: Exports, BICO [HS-6], World Total, Agricultural Total, "Value": Dollars, Annual, October–September, 2016–2019, "End Month": September).
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30. In real 2019 dollars and based on fiscal years, and U.S. Department of Agriculture, "Global Agricultural Trade System," Foreign Agricultural Service, <https://apps.fas.usda.gov/gats/ExpressQuery1.aspx> (accessed January 15, 2020) (criteria used: Exports, BICO [HS-6], China, Agricultural Total, "Value": Dollars, Annual, October–September, 2017–2019, "End Month": September). U.S. soybean exports, in particular, have been hit hard by the current trade dispute with China.
31. U.S. Department of Agriculture, "Global Agricultural Trade System," Foreign Agricultural Service, <https://apps.fas.usda.gov/gats/ExpressQuery1.aspx> (accessed January 15, 2020) (criteria used: Exports, BICO [HS-6], World Total, Agricultural Total, "Value": Dollars, Annual, October–September 2017–2019, "End Month": September).
32. Executive Office of the President, "Economic and Trade Agreement Between the Government of the United States and the Government of the People's Republic of China," Office of the U.S. Trade Representative, January 15, 2020, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2020/january/economic-and-trade-agreement-between-government-united-states-and-government-peoples-republic-china> (accessed January 15, 2020).

33. David Lawder, Andrea Shalal, and Jeff Mason, "What's in the U.S.-China 'Phase One' Trade Deal," Reuters, December 13, 2019, <https://www.reuters.com/article/us-usa-trade-china-details-factbox/whats-in-the-u-s-china-phase-one-trade-deal-idUSKBN1YH2IL> (accessed January 15, 2020).
34. For a more in-depth discussion on the appropriate federal role to help address agricultural risk, Daren Bakst, ed., *Farms and Free Enterprise: A Blueprint for Agricultural Policy*, Heritage Foundation *Mandate for Leadership Series*, September 21, 2016, <https://www.heritage.org/agriculture/report/farms-and-free-enterprise-blueprint-agricultural-policy>.