Are We Headed Toward Another Farm Financial Crisis as Severe as the 1980s?

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Introduction

Agricultural producers in the U.S. are currently struggling financially. Farms and ranches are losing money and some are going out of business. Those who are not going out of business are having to cut expenses, restructure debt, and look for additional sources of income to survive (Shaffer and Ray). In 2013, U.S. net farm income reached an all-time high of \$123.8 billion due to record prices for most agricultural commodities (Figure 1). Since that time, many commodity prices have fallen by more than one-half of their previous levels. As a result, U.S. net farm income fell each year until 2016 bottoming out at \$61.5 billion and resulting in a more than 50 percent decline in only three years. The decline has led to farmers and ranchers, politicians and industry observers asking

whether we are headed toward another 1980's magnitude farm financial crisis.

The U.S. farm financial crisis experienced in the 1980s is second only to the Great Depression in terms of widespread devastating farm financial losses that affected all types of farms across the nation. In the 1980s, the sustained decline in farm incomes and corresponding drop in land values triggered a large number of loan defaults leading to a significant number of farm bankruptcies. Many states had to set-up suicide prevention hotlines as farmers who saw no feasible way out of their financial problems took their own lives and in some cases the lives of their entire families and their pets (Farkas).

The problems of the 1980s were preceded by such good conditions in the late 1970s that some refer to this period as "the golden age of agriculture." There are a

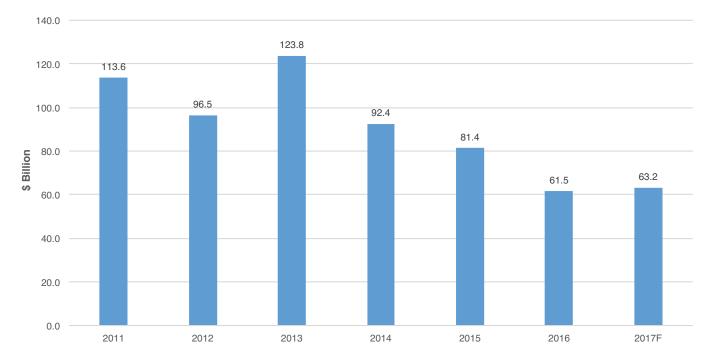


Figure 1. U.S. Net Farm Income, 2011 – 2017. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

We wish to acknowledge the contribution of Dylan Outlaw for his initial research and the development of the graphics for this article.

number of similarities between the current downturn in farm financial health and the conditions in the 1980s but there are also some important differences. This paper evaluates whether the conditions are similar enough to conclude that we might be headed toward a 1980's type of financial crisis.

Literature Review

The literature review focuses on the circumstances in the 1970s that led to the 1980's farm financial crisis. A review of these circumstances is necessary to determine whether the current conditions in agriculture are similar enough to lead to a similar crisis for farmers.

During the 1970s, lower trade barriers, bad weather around the world, and large grain purchases by the Soviet Union led to record (at the time) prices and farm incomes (Manning). These conditions led Secretary of Agriculture Earl Butz to proclaim that farmers should "plant fence row to fence row" and "get big or get out." The implication was that the good times would last indefinitely. Farmers responded to these conditions just as the Secretary asked, they got bigger by borrowing money and taking on debt. Land prices soared as farmers were bidding more and more for land they needed to expand and take advantage of the high commodity prices.

The economic conditions during the 1970's featured negative real interest rates which means that after

adjusting for inflation, it did not cost farmers to borrow money to purchase land and add to their operation. Under these conditions farmers took on a lot of debt that was backed by their land. Conditions were so good that the U.S. Farm Credit System changed their lending requirements to allow agricultural lenders to lend farmers up to 85 percent of the value of a producer's assets which previously had been set at 50 percent (Bovard). The change in loan requirements enabled farmers to buy more land and use up to 85 percent of their owned assets (which was mostly land) as collateral.

So, in a nutshell, if commodity prices ever fell, then land prices would fall, the value of the land farmers had pledged as collateral would fall, and since commodity prices fell the loans would not be repaid to banks. The banks would foreclose on the farm and would receive less value in land than they had loaned to farmers causing the banks to fail. That and more is what happened in the 1980s (Stam and Dixon).

By the 1980s, the "fence row to fence row" production caused commodity prices to decrease substantially causing land prices to fall. Many farms and banks failed. Some farmers and lenders committed suicide. The 1980s will be remembered as a terrible time for agriculture (Bovard).

The current conditions in agriculture have some worried that we are headed for another farm crisis. In a summary of recent ag reports from the Chicago, Dallas,

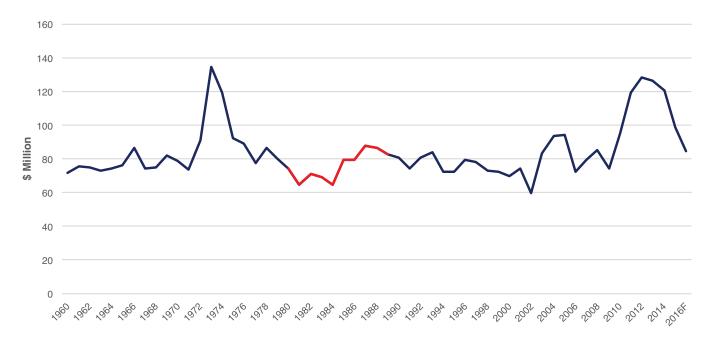


Figure 2. U.S. Net Cash Farm Income, 1960 – 2016. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

Kansas City, and Minneapolis Federal Reserve Districts, Shaffer and Ray reported that the banks were seeing increased loan demand and decreases in loans being repaid across all banks. The DTN/Progressive Farmer Ag Confidence Index reports on a quarterly survey conducted by DTN/Progressive Farmer that measures producer confidence. During 2016, the index decreased 27 points indicating producers were very pessimistic about their future (DTN/Progressive Farmer). A 27-point decline, while bad, could be considered mild if the current downturn turns into a farm financial crisis.

Materials and Methods

To determine whether current conditions are trending toward those in the 1980s each of the factors identified as important in the literature review will be compared for the current decade versus the 1980s. This analysis will use published data for each of six economic categories from the USDA-Economic Research Service (ERS). The six categories to be analyzed are:

- Farm Income as farm income declines, producers are worse off,
- Rates of Inflation Rates as general inflation increase, inputs become more expensive,
- Interest Rates as interest rates increase, the cost of borrowing money increases,

- Exchange Rates as exchange rates increase, it costs more for foreign customers to purchase our products and results in decreased demand for U.S. products,
- Land Values as land values increase, the borrowing capacity increases, and
- Debt-To-Asset Ratio as debt-to-asset ratios increase, farmers own less of their assets indicating financial weakness.

Results

Farm Income

During the 1980s, U.S. net cash farm income averaged around \$80 billion/year (Figure 2). Net cash farm income is simply total cash receipts for all U.S. farms minus total expenses except depreciation. Even though farm incomes have declined significantly during the current decade, net cash farm income has averaged \$100 billion/year. To this point, farm incomes are nowhere near levels during the 1980s.

Rates of Inflation

The rapid increase in rates of inflation during the 1970s ended by the end of the decade. Inflation decreased from an all-time high of 14 percent annually in 1979 to an average of 4 percent by the end of the 1980s (Figure 3).

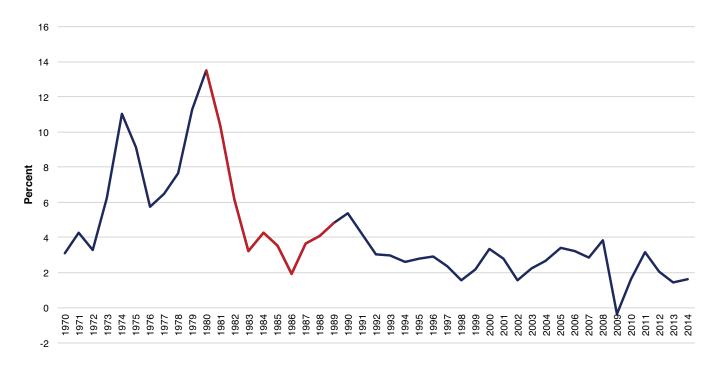


Figure 3. Annual Change in Consumer Price Index 1970 – 2014. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

During the most recent decade inflation has averaged 2 percent annually. The consumer price index is a commonly used measure of inflation that calculates the changes in prices of a market basket of consumer goods over time. Annual input cost inflation is lower currently than during the decade of the 1980s.

Interest Rates

Inflation adjusted or real interest rates increased each year after 1975 ending the decade at around 6 percent (Figure 4). During the early 1980s, real interest rates increased to nearly 9 percent in 1982 before

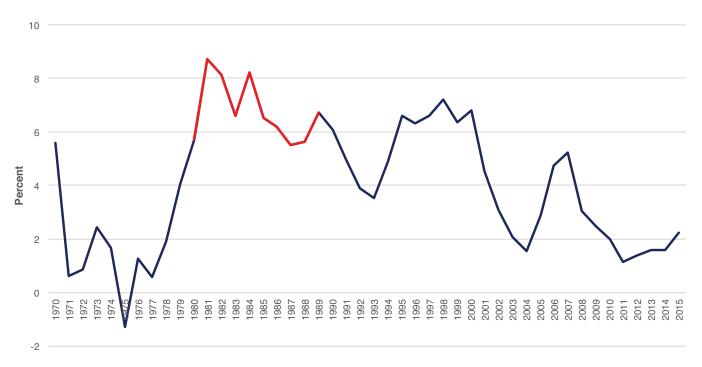


Figure 4. Real Interest Rates in U.S., 1970 – 2015. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

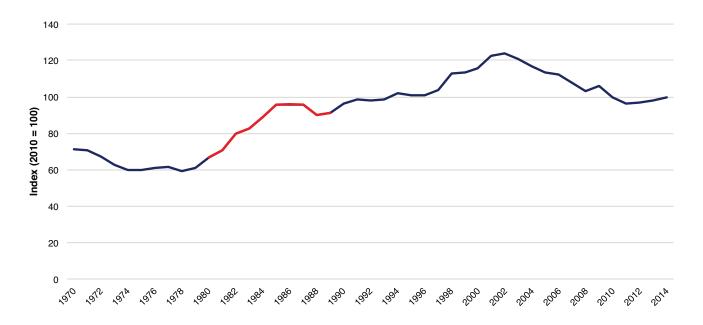


Figure 5. U.S. Agricultural Trade Weighted Exchange Rate, 1970 – 2014. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

declining throughout the 1980s to 1988. Interest rates increased to 7 percent in 1989 before taking a generally downward path through the current decade. While recently trending higher, current real Interest rates are considerably lower than during the 1980s.

Exchange Rates

The trade weighted exchange rate is a general measure of the strength of the U.S. dollar relative to a basket of other currencies. The data in Figure 5 is an index that was developed where the data for each year was divided by the number for 2010. It can be interpreted as the index goes higher, the value of the U.S. dollar is higher relative to the basket of other currencies. This means our products are relatively more expensive for our trading partners to buy. Relative to the decade of the 1980s, the value of the U.S. dollar is slightly stronger. This can be interpreted as a negative result because moving U.S. products to foreign customers will be more expensive and therefore harder.

The value of farm land decreased throughout the decade of the 1980s which significantly lowered collateral values (Figure 6). The current value of land in the U.S. has risen almost annually since the 1980s. The results for land values would indicate that the problems associated with declining collateral values during the 1980s have not reoccurred.

Debt-To-Asset Ratio

The debt-to-asset ratio for U.S. agriculture is the sum of all debt on farms divided by the value of all farm assets. As the debt-to-asset ratio increases it is generally considered that farmers are in a worse financial positon because debt makes up a larger proportion of their assets. The U.S. farm debt-to-asset ratio increased each year through 1985 before declining each year through the end of the period (Figure 7). In general, the U.S. farm debt-to-asset ratio has been at historic lows throughout the current decade. However, it should be acknowledged that the trend during the current decade is up.

Discussion and Conclusions

U.S. agricultural producers are currently struggling financially due to a significant drop in most commodity prices. Since peaking in 2013, U.S. net farm income has declined each year until 2016 bottoming out at \$61.5 billion. The decline has led to farmers and ranchers, politicians and industry observers asking whether we are headed toward another 1980's magnitude farm financial crisis.

Of the six measures that were analyzed, only Exchange Rates indicate a worse situation relative to the 1980s. The other five measures Farm Income,

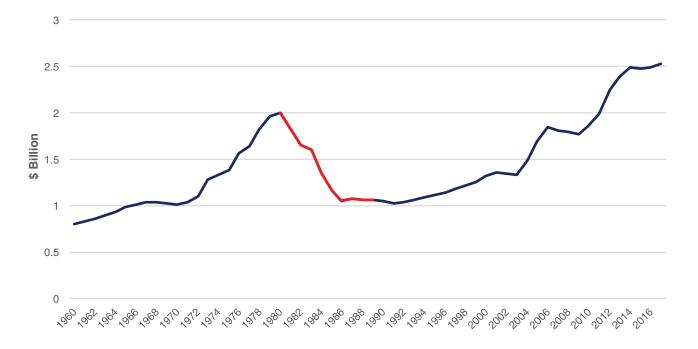


Figure 6. Value of U.S. Farmland Adjusted for Inflation in Billions, 1960 – 2016. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.

Rates of Inflation, Interest Rates, Exchange Rates, Land Values, and Debt-To-Asset Ratio are all currently improved relative to the 1980s. However, Farm Income, Inflation Rates, and Debt-To-Asset Ratio are all worsening.

These results lead to the conclusion that while there is significant financial pressure on U.S. farming operations, conditions are currently not as bad as the farm financial crisis experienced during the 1980s. Future research should continue to monitor the important criteria as conditions could continue to deteriorate.

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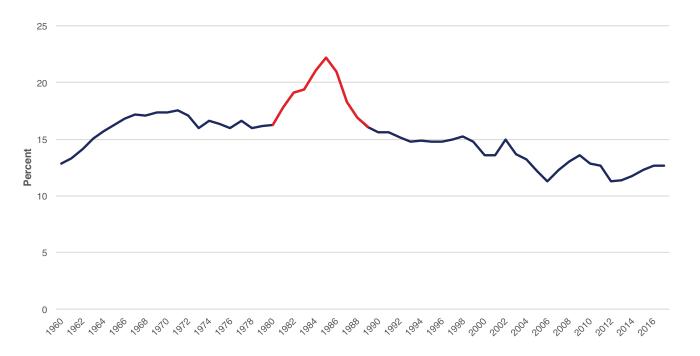


Figure 7. U.S. Farm Debt-To-Asset Ratio in Percent, 1960 – 2016. Source: U.S. Department of Agriculture. Farm Income and Wealth Statistics.