US farm loan conditions and outlook after the pandemic

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Overview

The US agricultural sector has had a relatively stable total loan volume borrowed from commercial banks, with higher volume of real estate farm loans than non-real estate farm loans in recent years. Interest rates for non-real estate loans have had a similar trend to the prime lending rate, but the risk premium for non-real estate loans compared to the prime lending rate has narrowed and approached zero in the last few years. These trends show that returns in the agricultural real estate market seem more promising than earnings from farm operations, which had low returns for several years prior to 2021. Although the agricultural downturn has been reversed in the last few years, the inertia of low-return expectations for farm businesses might persist. The upward trend in interest rates in 2022, determined by the Federal Reserve, combined with other factors such as the high inflation rate, makes farm loan conditions more unpredictable in the future.

Farm loan volume

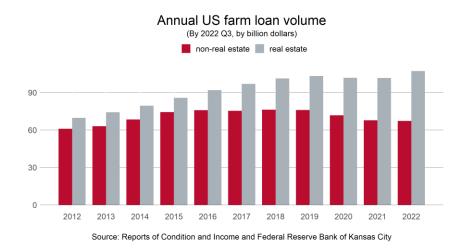


Figure 1

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Figure 1 shows the volume of agricultural loans in commercial banks, separated in two categories: real estate loans and non-real estate loans. Real estate loans are loans used to finance farmland, buildings, or residential dwellings in rural areas, while non-real estate loans aim to finance agricultural production expenses and farm machinery and equipment. In the last decade, commercial banks accounted for 35% of the volume of agricultural loans in the US.

Since 2015, the total volume of non-real estate agricultural loans has stabilized at around 75 billion dollars and has slowly declined after 2019. The increasing interest rates on non-real estate loans before the outbreak of Covid-19 could partially explain this scenario, as Figure 2 shows below. Higher interest rates make it costly for farmers to run their businesses and discourage them from borrowing more. The pessimistic expectation of lower returns brought by the Covid-19 pandemic might have also suppressed farmers' willingness to borrow for production purposes, even though they would have incurred lower interest rates.

On the other hand, the volume of real estate farm loans did not experience a downward trend like the non-real estate loan volume did, though its growth has slowed down since 2019. The reason for this could be that farmers were not the only people buying farm real estate: some investors have also bought farmland as a type of asset that can be used to hedge risk from the stock market. Different economic cycles between the agricultural market and the stock market may have created these differences in trends between non-real estate loans and real estate loans volumes.

Interest rate and delinquency rates

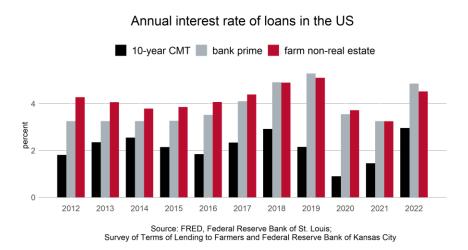


Figure 2

Figure 2 compares the average interest rates of non-real estate farm loans and bank prime lending rates, which are applied to their most creditworthy borrowers and usually have about a 3 percent premium over the federal funds rate. The market yields of 10-year US Treasury Securities (CMT rates) are also shown in figure 2. Although the interest rates of non-real estate farm loans exhibited the same trends as the bank prime lending rates, the risk premiums of the non-real estate loans kept declining and even became negative recently. The low interest rates of non-real estate farm loans

also corresponded to the lower delinquency rates on these loans from 2012 to 2017, compared to the delinquency rates for all loans, as seen in figure 3. This trend has reversed between 2018 and 2022, with delinquency rates of agricultural loans exceeding that of all loans.

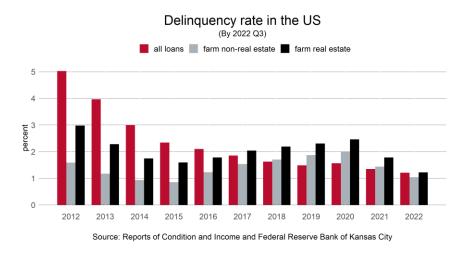


Figure 3

Farm income

There was a significant downward trend in net farm income from 2013 to 2018, named the agricultural downturn, while government payments stayed roughly at the same level (figure 4). Decreasing net farm income from operating their farms and the higher cost of financing collectively accounted for the farmers' reluctance to borrow more money to operate their businesses during the time. As a result, despite the much larger net farm incomes in 2021 and 2022, farmers might still hesitate to borrow, as they continue to face uncertainties brought about by the Covid-19 pandemic and the war in Ukraine. In 2022, the market interest rates increased rapidly due to Federal Reserve raising interest rates seven times, and this trend may continue in 2023. Agricultural loans are not an exception, which interest rates in recent months have also reached the highest values within the last decade. The increasing interest rates will put additional pressure on farmers who may need additional loans to operate their farm businesses.

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Looking forward to 2023, much uncertainty about farm loans remains considering the sharp increase in interest rates raising financing costs, the changing agricultural market, and higher expenses in agriculture due to inflation.

Average net farm income and government payment

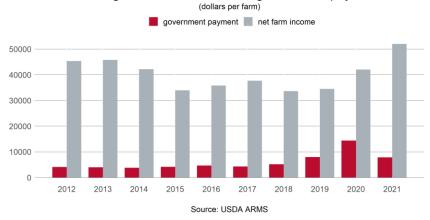


Figure 4

References:

- Board of Governors of the Federal Reserve System (US), Bank Prime Loan Rate, retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/, January 25, 2022.
- Cowley, C., & Kreitman, T. (2023, January 18). *Rebound in Farm Lending Continues*. Federal Reserve Bank of Kansas City. https://www.kansascityfed.org/agriculture/agfinance-updates/rebound-in-farm-lending-continues/
- Cox, J. (2023, January 4). Fed officials see higher rates for "some time" ahead. CNBC. https://www.cnbc.com/2023/01/04/fed-minutes-december-2022-.html/
- Cox, J. (2023, February 1). *Fed raises rates a quarter point, expects "ongoing" increases*. CNBC. https://www.cnbc.com/2023/02/01/fed-rate-decision-february-2023-quarter-point-hike.html
- Federal Reserve Bank of Kansas City. (2023, January 18). *Ag Finance Updates*. https://www.kansascityfed.org/agriculture/agfinance-updates/
- Ivanova, I. (2022, December 14). *Fed hikes key interest rate for seventh time this year*. Fed hikes key interest rate for seventh time this year. https://www.cbsnews.com/news/federal-reserve-hikes-interest-rates-seventh-time-2022/
- USDA, Economic Research Service and National Agricultural Statistics Service (NASS), Agricultural Resource Management Survey. Data as of January 25, 2021.
- USDA, Economic Research Service. Farm Sector Income & Finances: Farm Sector Income Forecast, December 1, 2022.