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Financing Young and Beginning Farmers

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Attracting and retaining the next generation of farm operators has been a persistent struggle in U.S. agriculture. Over the past century, productivity gains in U.S. agriculture have led to the consolidation of farm enterprises into larger operations, limiting opportunities for farm ownership and triggering an exodus of young farmers from the industry. Although the recent surge in farm prosperity has rekindled interest in U.S. agricultural production, the increasing age of farmers and rising costs of farming have generated concerns about the ability of the next generation to enter the farm business.

Farming can be a difficult profession to enter because of the high fixed costs of capital. Young and beginning farmers, similar to their peers in other businesses, often face challenges in securing financing for capital-intensive operations. Lenders are often more cautious with young and beginning farmers because they generally present greater risk due to their lower levels of equity and wealth. Because of their greater risks to lenders' loan portfolios, young and beginning farmers are usually required to provide higher levels of collateral when securing farm loans. Rising land values, which increase the fixed costs of agriculture, only intensify the challenges of financing.

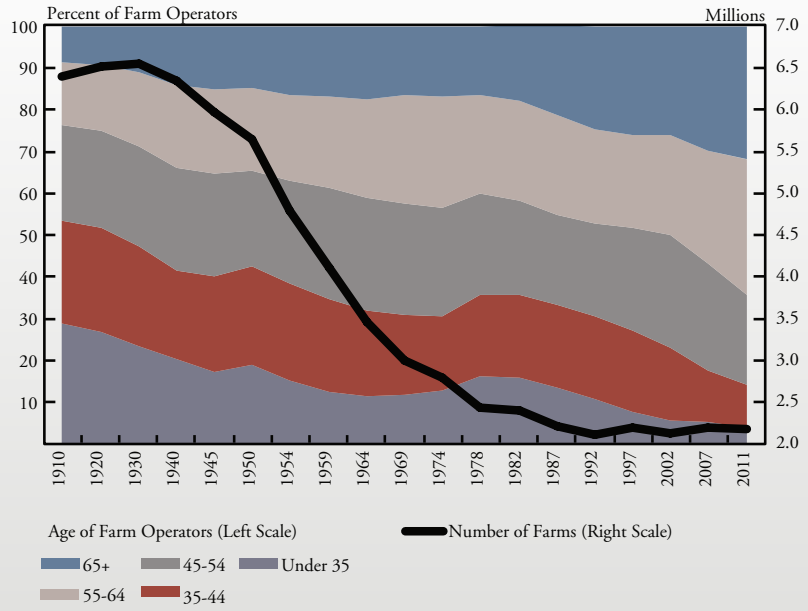
In recent decades, many programs have been developed to assist young and beginning farmers with financing for agricultural enterprises and land. However, recent data indicate that fewer of today's young and beginning farmers own land than in the previous decade. This shift raises questions about the structure of agricultural policies that support the new generation of farmers as they acquire land, especially if their decisions about ownership are driven by market-related factors.

Demographics of Farm Operators

As baby boomers reach retirement age, succession planning is a major concern for U.S. businesses. For agriculture, the challenge is especially daunting. New technologies and increased productivity have boosted economies of scale, in turn shrinking the number of farm operators. In addition, rising production costs have intensified the financial needs of agriculture, which can serve as a barrier to entry for young and beginning farmers.

During the past century, the average age of farm operators has steadily increased. From 1940 to 2007, the average age of farm operators rose from 48 to 57, with those 65 and older being the fastest-growing group, according to the Census of Agriculture (Chart 1). Farm operators tend to be older than non-agricultural business owners. In 2007, 56 percent of principal farm operators were older than 55, compared with a third of all self-employed nonfarm workers.[1]

Chart 1
Age of Farmers and Number of Farms



Source: USDA

Along with the rising age of farm operators, the productivity of U.S. agriculture has steadily improved. Technological advancements have allowed farmers to expand their acreage while using less labor. According to the U.S. Department of Agriculture (USDA), about 40 hours of labor were required to produce 100 bushels of corn in the 1880s. Less than two hours of labor are needed today. As a result, the average size of farms has grown from 133 acres in 1880 to 420 acres in 2012, and the number of farms has fallen from 4 million to 2.1 million during the same time.

In addition to the long-term trend, the age of farm operators tends to shift cyclically with agricultural prosperity. During prosperous times, the average age of farm operators has held steady as the number of young and beginning farmers increased along with rising profits. For example, during the farm income booms of the 1940s and 1970s, the share of farm operators younger than 35 increased, in contrast to declines for the rest of the century.

Agricultural Financial Conditions

Agricultural financial conditions, a key component in the transition to a younger generation, have fluctuated during the recent recession and financial crisis. After contracting during the Great Recession, a wave of capital investments and agricultural lending is being fueled by a rebound in agricultural profits. The current prosperity in the farm sector appears to be sparking new interest in U.S. agricultural production. However, new farm operators are entering an environment of high production costs and increased capital requirements.

Over the past decade, U.S. agricultural production costs have risen at the fastest pace since the 1970s. Increases in seed and fertilizer costs have driven up annual U.S. corn production costs by roughly 8 percent since 2006. From 2006 to 2011, average annual fertilizer costs alone have increased 17 percent. Seed costs have surged by an annual average of nearly 20 percent in the same period. In addition, livestock production costs have increased sharply with higher livestock and feed costs.

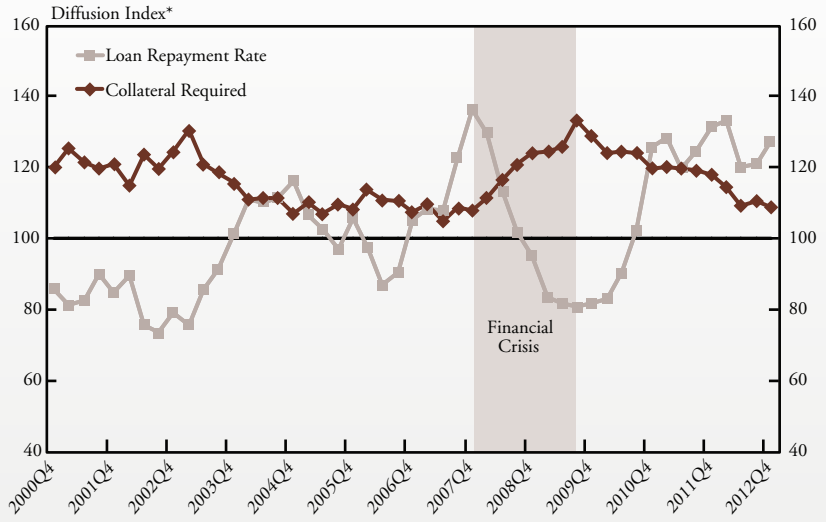
From 2006 to 2008, surging farm incomes were initially strong enough to pay for escalating production costs, which limited non-real-estate farm lending and debt accumulation. Increasing ethanol production and burgeoning export demand, particularly from China, have pushed agricultural commodity prices and farm incomes higher. The loan repayment capacity of farm

enterprises improved dramatically with the higher incomes, and the farm sector began building significant equity in its operations (Chart 2). The buildup of equity and the use of larger amounts of cash to cover production expenses consequently limited growth in non-real-estate agricultural lending.

Prosperity that extended into 2008, however, fueled a rise in agricultural lending activity. Rapid gains in land values from 2004 to 2008 strengthened farm balance sheets and boosted farm household wealth levels (Chart 3). Expanding wealth levels tend to spur agricultural investments, and as a result real estate lending has surged in recent years (Henderson and Kauffman 2013). At the same time, farmers intensified their non-real-estate investments. For example, combine and four-wheel-drive farm tractor sales rose approximately 20 percent annually from 2006 to 2008. Farmers also increased their purchases of other farm equipment, including grain bins, irrigation systems and machine sheds.

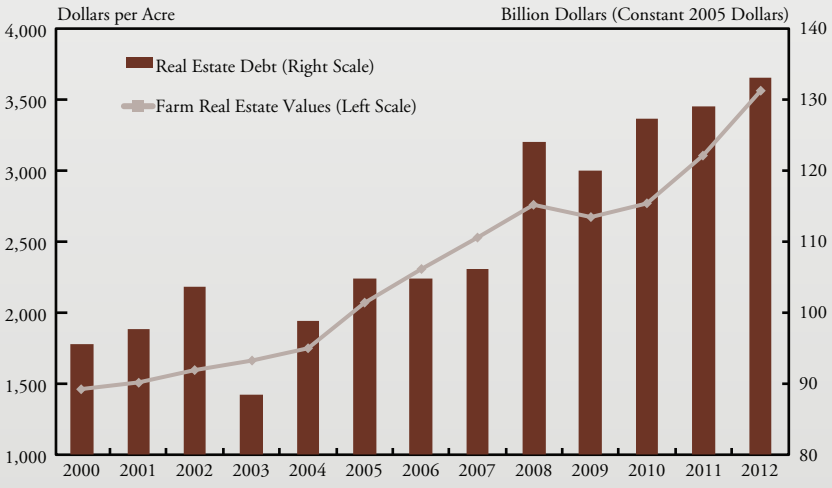
Following a period of prosperity, the financial crisis significantly affected agricultural credit conditions. A collapse in commodity prices and farm incomes in 2009 contributed to a decline in farmland values and a fall in loan repayment rates. Deteriorating economic conditions caused banks to tighten lending standards by raising collateral requirements. Agricultural investments and lending activity slowed throughout the recession. For example, after surging more than 20 percent each of the

Chart 2
Loan Repayment Rates and Collateral Required
Average of Federal Reserve District Surveys

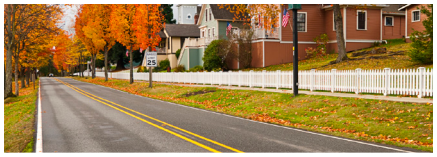


Sources: Agricultural Finance Databook, Federal Reserve Bank of Kansas City.
**Commercial bankers responded by indicating whether conditions during a given quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.*

Chart 3
U.S. Average Farm Real Estate Values and Real Estate Debt



Source: USDA.



previous two years, farm tractor sales edged up only 2 percent in 2009.

The ensuing recovery from the recession and financial crisis has rekindled agricultural prosperity and bolstered farm finances. During 2010 and 2011, rising crop prices lifted farm incomes and farmland values to record levels. In addition, loan repayment rates rebounded due to soaring farm incomes, and returns at agricultural banks steadily improved. The persistence of farm profitability into 2012 appears to have altered agricultural lending as more banks competed for high-quality farm loans. With increased competition for farm loans, low interest rates, and rising investments in agriculture, some banks began lowering collateral requirements in 2012, boosting agricultural lending activity.

Young and Beginning Farmer Financial Conditions

Although agricultural lending seems to be rising, obtaining financing appears to be more difficult for young and beginning farmers. Because they have less equity and higher debt ratios, young and beginning farmers present greater risks to commercial banks. In addressing the risk, bankers typically ask young and beginning farmers to provide additional collateral when financing farmland purchases. Escalating land values raise the fixed costs of agriculture and accentuate the difficulties young and beginning farmers face in building an owner-operator business. These market forces suggest that an alternative model of land ownership for young and beginning farmers may emerge, despite policies geared toward land ownership.

Along with less experience, young and beginning farmers typically have less farm equity. In 2011, farmers younger than 35 had roughly 20 percent less equity per farm than the average across all farms (USDA 2012). As a share of total assets, farm liabilities of these younger farmers were more than twice that of all farmers. As a result, the debt-to-asset ratio of farm enterprises managed by operators younger than 35 was more than four times higher than enterprises managed by operators 65 or older. In addition to the higher real estate debt burden, non-real estate debt was sharply higher for young and beginning farmers. In fact, non-real estate debt was three times higher for farms managed by young farmers, compared with other farms in 2011.

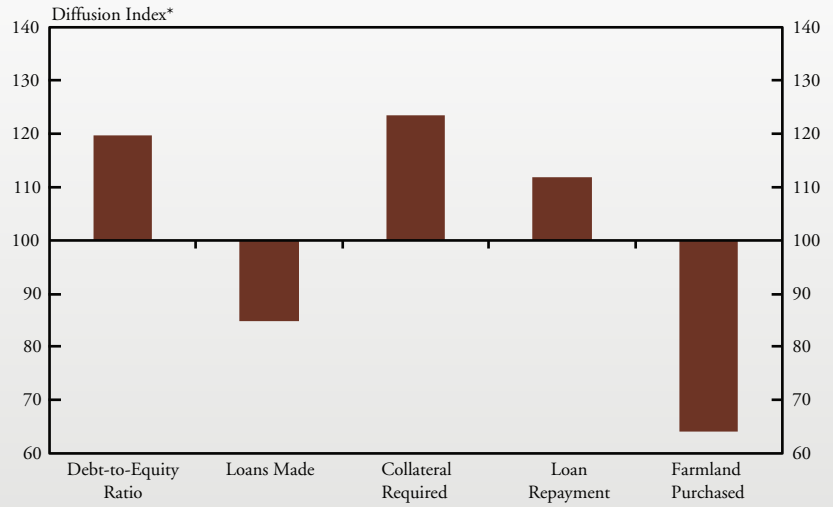
With lower levels of equity and higher debt ratios, young and beginning farmers present a distinct risk for lenders. Farmers with higher debt ratios have less capacity to repay loans in the event of a downturn in incomes. The risk of default rises with higher debt ratios and insolvency issues begin to appear when the debt-to-asset ratio for individual farms breaches 40 percent (Park et al. 2011). With higher debt ratios, young and beginning farmers are rationally perceived as a more risky group on average.

To compensate for higher risk, bankers typically adopt higher lending standards and take greater precautions when originating new loans. Lenders may raise collateral requirements for borrowers with higher debt ratios. In addition, lenders sometimes charge higher interest rates for borrowers who present greater risks of loan default.

In a recent survey of commercial banks in the Federal Reserve's Tenth District, bankers reported having higher collateral requirements for young and beginning farmers who typically have higher debt ratios. According to the bankers, young and beginning farmers have higher debt-to-equity ratios compared to other farmers (Chart 4). Commercial banks reported making fewer loans to young and beginning farmers and required higher levels of collateral relative to other farmers. Yet, bankers also indicated that loan repayment rates were higher for young and beginning farmers, which may be an outcome of more selectivity in initial lending and support from federal programs.

Banker survey comments also indicate that young and beginning farmers struggle to compete in land markets. Soaring land values increase the cost of entry into agriculture. In addition, agricultural consolidation, driven by economies of scale or scope,

Chart 4
Financial Conditions for Young and Beginning Farmers Compared with Other Farmers



Sources: Survey of Agricultural Credit Conditions, Federal Reserve Bank of Kansas City.
**Bankers responded by indicating whether conditions in the fourth quarter of 2012 are typically higher than, lower than, or the same for young and beginning farmers relative to other farmers. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.*

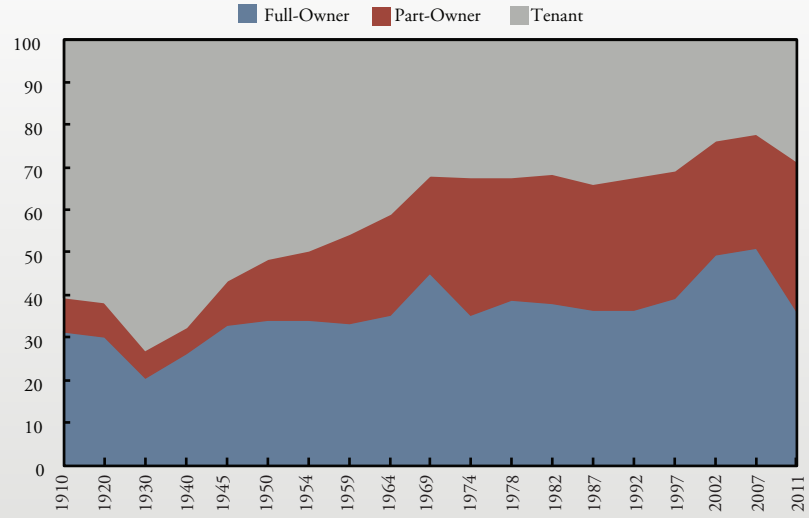
has led to larger farming operations, which further increases the cost of farm purchases. Moreover, recent prosperity has limited the number of farms offered for sale, and the lack of supply further accentuates the higher prices of agricultural land.

Farmers with limited equity, such as young and beginning farmers, are more challenged to purchase farms when rising land prices increase the fixed costs of agricultural production. With agricultural production's large fixed costs, high collateral requirements are a barrier to entry for young and beginning farmers with limited equity available as collateral. As land prices continue to climb, this obstacle is becoming more pronounced. According to the Tenth District survey, a significant number of bankers reported making fewer loans for land purchases to young and beginning farmers relative to existing farmers—possibly because of tighter lending requirements, limited equity, or a combination of both. In fact, many bankers indicated that young farmers often required assistance from family members or friends to start their farming operation.

Various policies have been designed to support young, beginning, and small farming operations. In 1971, the Farm Credit Act tasked the Farm Credit System (FCS), established by Congress in 1916, with "furnishing sound and constructive credit and related services to young, beginning, and small farmers and ranchers." These services include interest rate concessions for both real estate and non-real estate loans, underwriting standard exceptions, lower loan fees, or loan covenants (FCA 2012). State programs have also been put in place to support young and beginning farmers.

Profitability in the farm sector and government support programs have led to a shift in young and beginning farmer ownership trends over the past century. In the early 1900s, the majority of young farmers were not farm owners. Typically, young farmers rented farmland as tenants through lease agreements (Chart 5). From 1930 to 1970, a growing share of young farmers started becoming partial owners, but fewer became full owners. The ownership structure remained relatively constant from 1970 to the late 1990s. In the early 2000s, however, this structure changed, with a sharp increase in young farmers becoming full owners. In addition to a boom in agricultural profits, federal support programs may have contributed to this increase. From 2001 to 2007, FCS loans to young, beginning and small farming

Chart 5
U.S. Farm Ownership Structure for Farmers Younger than 35



Sources: Data through 2007 obtained from the U.S. Census Bureau. Data for 2011 obtained from USDA Economic Research Service, Agricultural Resource Management Survey.

operations roughly doubled (FCA 2012). By 2007, more than half of U.S. farmers younger than 35 were full owners of farmland.

From 2007 to 2011, however, the trend toward full ownership for young and beginning farmers reversed sharply. By 2011, only 36 percent of farmers younger than 35 were full owners of farmland as production costs continued to rise and land values surged dramatically. Many farmers still aspire to own the land they farm. Yet, in contrast to previous decades, a growing number of younger farmers is renting land before incurring the fixed costs associated with land purchases.

A rental strategy for land and equipment could become the standard business model of the future for young and beginning farmers in the United States. Leasing already is in wide use in other industries. The Equipment Leasing and Finance Association reports that approximately 80 percent of U.S. companies lease some or all of their equipment (*Entrepreneur* 2013). By avoiding or deferring significant fixed costs, a leasing strategy may be less risky in the event of a downturn in the farm sector. In turn, policies geared toward land ownership may also evolve as market forces alter the landscape for young and beginning farmers in U.S. agriculture.

Conclusion

Farmers in the United States, on average, are growing older. As younger farmers attempt to take agriculture's reins, many are finding that task to be difficult. Farm enterprises operated by young and beginning farmers are often characterized by limited collateral and higher debt ratios. High debt ratios raise the risk of insolvency if farm profits fade. As a result, young and beginning farmers frequently face tighter credit markets and higher collateral requirements than more-experienced farmers. These requirements appear to be limiting bank lending for real estate purchases to young and beginning farmers.

Record high prices present a mounting challenge to young and beginning farmers who want to purchase farmland. Higher prices for land and fixed expenses appear to be shifting the structure of farm enterprises managed by young and beginning farmers from an owner-operator model to a renter-operator model. Current federal and state policies support the owner-operator model in U.S. agriculture. However, the structure of farm enterprises in the future may continue to develop into a renter-operator model, especially if market forces continue to drive up fixed costs of production.

ENDNOTE

[1]The age of farm operators was obtained from the 2007 Census of Agriculture and the age distribution of small business owners was obtained from the Survey of Business Owners-Characteristics of Business Owners 2007.

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