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# Leased Capital Vs. Debt Capital in U.S. Agriculture

by Steven R. Koenig, Charles B. Dodson  
and James T. Ryan

In the wake of the 1980's farm financial crisis, some analysts postulated that a recapitalization of U.S. agriculture would require an infusion of equity from non-farm investors. This would lead to more leasing by farm operators. Greater leasing would reduce the farmer's financial risk associated with debt financing by expanding the number of investors to absorb losses. Evidence provided here on how agricultural assets are being financed in the 1990s suggests that these forecasts may be correct.

According to survey data for 1994, 553,000 commercial-sized farms managed \$700 billion in farm business capital to produce 88% of the Nation's total supply of food and fiber (Table 1). Total farm business capital includes the sum of the values of leased assets, owner supplied equity, and borrowed capital (debt). When

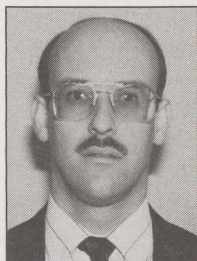
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***553,000 commercial-sized  
farms managed \$700 billion  
in farm business capital.***

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commercial farms were divided into six groups based on age and wealth, capital was found to be concentrated in the hands of farm operators classified as both older and wealthy (see page 21 for definitions). This group of operators account for only 12% of the total number of commercial operators, but control 27% of the \$700 billion in total farm business capital. In contrast, low-wealth operators as a group represent 30% of commercial operators, but control only 14% of the total capital.

The average total farm business investment (capital) of commercial-sized farms now exceeds \$1.3 million, and for older wealthy operators it is approaching \$3 million. Operators classified as low-wealth operators appeared greatly undercapitalized by comparison, averaging just under \$600,000 in capital used per farm. However, wealthy operators were less efficient



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Table 1.

### Capital Use By Commercial Farm Operators

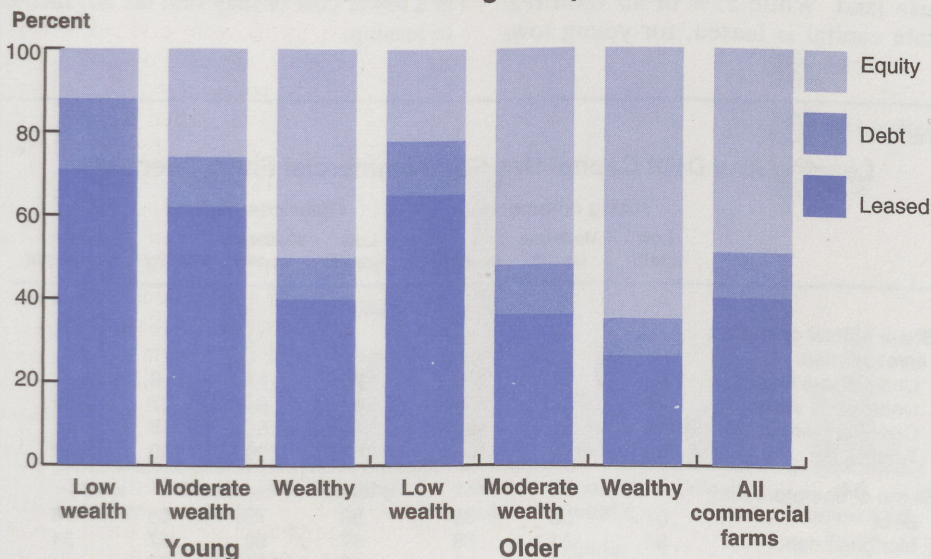
	Young commercial			Older commercial			
	Low wealth	Moderate wealth	Wealthy	Low wealth	Moderate wealth	Wealthy	All commercial
Thousands							
Number of farms	40	63	27	120	224	65	553 <sup>1</sup>
Billion dollars							
Total capital	23	68	73	80	224	190	702
Percent							
Share of total commercial:							
Managed capital	3	10	10	11	32	27	100 <sup>1</sup>
Farm numbers	7	11	5	22	41	12	100 <sup>1</sup>
Value of production	4	8	9	13	32	25	100 <sup>1</sup>
Thousand dollars							
Average per farm amount of:							
Total capital	\$568	1,082	2,642	669	1,001	2,953	1,270
Equity capital	\$70	287	1,313	140	519	1,917	624
Leased capital	\$400	665	1,065	439	362	769	504
Debt capital	\$98	130	263	90	119	268	141

Source: 1994 Farm Costs and Returns Survey.

<sup>1</sup>Numbers may not add across because total includes corporations.

Figure 1.

### Share Of Total Managed Capital That Is:



Source: 1994 Farm Costs and Returns Survey



at using their capital, generating only \$19 in farm production for every \$100 of capital compared to \$22 of for low-wealth operators.

## Importance of Leased Capital

For all commercial farms, 40% of the total capital utilized is leased. This percentage compares with nearly 50% of capital that is internally generated (equity) by the farm firm (Figure 1). The average amount of leased capital per farm is \$500,000, but tops \$1 million for wealthy young farm operators. Leased capital is primarily supplied by landlords, but nonreal estate leasing appears to be growing in importance.

Young farmers with low and moderate financial resources are most dependent on leasing, which accounts for about two-thirds of their total capital. But leasing is also an important source of capital for older and wealthy operators. For these farms, leasing still accounts for more than 25% of the total capital used.

Leasing has always been one of the more common methods of "financing" the control of farm real estate. Farmers have historically viewed leasing as a temporary measure until funds are available to purchase land. While 52% of all farm real estate capital is leased, for young low-

wealth operators this share is 87%. Yet, leasing also appears to be a permanent method of financing farm real estate. For older wealthy operators at least a third of total real estate capital is leased and at least two-thirds use some real estate leasing. The percentage of their total acres leased is still relatively high at 43% (Table 2).

Cash leasing as opposed to share leasing is a more popular method to gain control of real assets. An exception is young operators with low or moderate wealth. Wealthier and older farmers are better equipped to absorb the risks of cash leasing and are also less in need of the input financing which share leasing offers.

Leasing is much less important for gaining control of nonreal estate assets. For all commercial farms, 13% reported leasing some machinery or equipment, but leased capital accounts for just 5% of all nonreal estate capital used. Young low-wealth operators and older wealthy operators were found to be somewhat more likely to lease machinery than other groups. Younger operators may be using leasing because they may find themselves rationed out of regular credit markets; wealthy older farm operators may find that leasing allows them to keep up with the latest technology at a lower cost or may find tax advantages to leasing.

Table 2.

### Leasing And Debt Capital Use For Commercial Farm Operators

	Young commercial			Older commercial			All commercial
	Low wealth	Moderate wealth	Wealthy	Low wealth	Moderate wealth	Wealthy	
Percent							
Share of total operator's acres farmed:							
Under share lease	40	37	16	25	17	6	16
Under cash lease:	44	38	35	62	34	37	39
Operator owned:	16	25	50	13	51	58	46
Total	100	100	100	100	100	100	100
Share of operators with:							
Debt	87	88	88	80	72	65	76
Mortgage debt	34	61	69	47	52	47	51
Non-real estate debt	57	59	57	43	40	35	44

Source: 1994 Farm Costs and Returns Survey.



## Debt Capital is Small

In contrast to leasing and to internally generated funds, debt is a relatively minor source of capital used by commercial farms. Lenders supply only 11% of the \$700 billion in total managed capital. Low-wealth operators are more reliant on debt than other operator groups, but debt still represents just 17% of total capital used by young low-wealth operators. The reliance on debt-capital financing decreases as age and wealth increase.

Debt capital use among farm businesses is irregular. Nearly a quarter of all commercial farms report no outstanding debt. Only about half report owing mortgage debt and less than half report owing nonreal estate debt. Use of all debt forms (mortgage, nonreal estate, and operating loans) by one farm is relatively uncommon. Only 15% of all indebted farms reported owing all three debt forms. This finding questions the belief that full service lending is required to compete effectively in farm credit markets.

When total capital is broken down into its real estate and nonreal estate components, the share of total real estate capital

that is borrowed was found to be only 8%. This share is fairly uniform across all subgroups, ranging from 6% to 9%. Debt was found to be a more important source of nonreal estate capital, supplying roughly 17% of the total. But, this varies considerably by age and wealth, with low-wealth operators borrowing over a third of total nonreal estate capital needs. Using 1991 to 1993 data, commercial banks were found to be a major source of nonreal estate capital to these operators, supplying more than 20% of their needs (Figure 2). Across all six age and wealth groups and regardless of the type of credit, the Farm Credit System (FCS) consistently supplies around 3% of total managed capital.

## Building Capital From Income

Building capital through internally generated funds may be more difficult for many commercial farm operations than popularly believed, especially for low-wealth operators. For low-wealth operators, average net farm income is under \$18,000. The wealthy operator groups appear to be the

Figure 2.

### Share Of Total Nonreal Estate Capital Supplied By:



Source: 1991-93 Farm Costs and Returns Survey



most likely to generate capital from farm income. More than 46% of older wealthy operators and 37% of young wealthy operators reported net farm incomes over \$50,000.

Off-farm income appears to be a potential source of capital for older wealthy commercial operators, but may be limited for other groups. Older wealthy operator households average \$47,000 off-farm income annually, whereas the other groups average between \$25,000 and \$30,000. Therefore, potential for generating additional capital from off-farm income appears somewhat limited for many operations. Few commercial farm operators appear to have either the time to devote to an off-farm job or the training for off-farm employment. Commercial operations average 2,600 hours of labor annually. Among those operators under 40, who probably need off-farm income the most, only 15% reported less than 1,500 hours of work on their farm operation.

### *Rates of Return Differ*

After charging the business for operator labor and management costs, the average farm operation generated a 4.5% rate return to all capital in 1994 (Table 3). While farms averaged \$57,000 in total returns to all sources of capital, only 30% of this (about \$17,000) was a return to operator's equity. For wealthy older operators, returns to equity amounted to more than 48% of the \$120,000 total returns to all managed capital.

Average returns to equity are negative for young low-wealth operations. This suggests that many of these operators are accepting a lower than market return for their labor and management. While young low-wealth operators produced a modest 4% rate of return on their owned assets in 1994, they appear to achieve the most efficient capital utilization of any group.

### *Leased capital amounts to 40% of the total in commercial operations.*

When all leased resources used by the operation are accounted for, these young low-wealth operators generated a 6.6% rate of return to all managed capital. Among older operators, low-wealth producers earned the highest rates of return to all managed capital.

Young low-wealth operators generated the lowest rate of return for creditors, borrowing at an estimated interest rate of 7.5%. This suggests that this group may be purchasing family assets at favorable contractual interest rates. However, the rental rate of return these operations paid landlords was the highest of any group, indicating either that they are renting the highest quality land or that they received little preferential treatment in leasing arrangements. The significance of leasing, rather than borrowing, to these operations

**Table 3.**

#### **Rates Of Return To Capital Managed By Commercial Farm Operators**

	Young commercial			Older commercial			All commercial
	Low wealth	Moderate wealth	Wealthy	Low wealth	Moderate wealth	Wealthy	
Percent							
Capital owned:	4.0	4.5	5.7	5.2	3.2	3.7	3.8
Debt	7.5	8.6	9.4	9.2	9.2	9.4	9.2
Equity	-0.1	2.9	5.1	3.2	2.0	3.0	2.7
Leased real estate	7.5	4.9	4.2	5.5	6.2	4.8	5.5
All managed capital	6.6	4.8	5.2	5.5	4.3	4.0	4.5

Source: 1994 Farm Costs and Returns Survey.



is highlighted by their average lease payments of \$30,500 compared to average interest expense of less than \$7,000.

## Conclusions

The results of the study indicate the importance of leasing as a source of capital for commercial farms is much greater than that of debt capital. Only 11% of total managed capital is borrowed, whereas leased capital accounts for 40% of the total. Equity accounts for the balance. To gain control of productive assets, low-wealth farmers, particularly young operators, rely more heavily on leasing than other classes of operators. However, debt capital is a significant source of nonreal estate capital for these low-wealth farmers. The research also indicates that internally generated capital from the farm

business or nonfarm sources is often limited to wealthier commercial farms.

The results have implications for Federal agricultural credit policy. For young low-wealth farmers, USDA direct lending programs supply only about 5% of their total managed capital. The Federal Agricultural Improvement and Reform Act of 1996, which further targets these programs to beginning farmers, will likely boost this share. However, these operators will still rely mostly on landlords and commercial banks for their capital needs. Given their reliance on leased capital, young and low-wealth operators might benefit more from policies that improve the efficiency or attractiveness of leasing arrangements. This might be accomplished through the tax code by giving favorable tax treatment to landlords on leases involving beginning farmers. ▲

## Defining Commercial Farm Operators

Commercial-sized farms have more than \$50,000 in annual sales and produce nearly 90% of the total value of U.S. farm production. Non-commercial farms tend to be operated by part-time or lifestyle farmers who may be willing to maintain greater capital investments than a commercial operator. Thus, excluding them provides a more representative picture of the capital actually used to produce farm products.

Commercial-sized farms were divided into six groups based on age and wealth. For younger farmers, the equity thresholds defining the low, moderate, and wealthy categories were lower than for the older group. This was done to account for the overall increase in wealth with age.

- Young farmers – Under 40 years of age
  - Low-wealth – Under \$150,000 net worth
  - Moderate – \$150,000 to \$500,000 net worth
  - Wealthy – More than \$500,000 net worth
- Older farmers – 40 years of age or

older

Low-wealth – Under \$250,000 net worth

Moderate – \$250,000 to \$1,000,000 net worth

Wealthy – More than \$1,000,000 net worth

USDA's Farm Costs and Returns Survey for 1994 was used to complete the study. Balance sheet assets are valued at their current value and not their cost basis. Therefore, the operator's out-of-pocket capital cost may be more or less than stated, depending heavily on when farm real estate assets were acquired. Leased real estate values were obtained directly from the FCRS, but the value of nonreal estate assets were imputed from other data. Also, only assets associated with the operator's farm business were included in the study. Consequently, it does not provide a complete accounting of farm sector participants' assets and liabilities. However, for most farm operators the majority of their net worth is invested in farm assets. ▲