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Is Leasing A Viable Alternative

by

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Financial Leasing: Advantages and Disadvantages

High interest rates have motivated many farmers and their financial advisors to look for less costly methods of obtaining farm assets. One method that has received considerable interest is financial leasing. Recent research indicates that there are situations where financial leasing is economically sound and others where it is not. In the discussion that follows, the frequently cited advantages and disadvantages of leasing are examined in light of current research evidence. Then, those situations where leasing is most likely to be profitable are identified. Although large amounts of land have been and continue to be leased, this discussion relates primarily to leasing equipment, cattle and structures.

Financial versus Operating Lease

The financial lease is different from the operating lease with which many farmers are familiar. With an operating lease the farmer obtains use of the asset for a short period of time for a set fee. Examples include leasing a backhoe for three weeks or a tractor for two months. This is frequently called rental. The lease can normally be cancelled by return of the item. Purchase of the item is not an equivalent option.

In times of high interest rates and tight cash flows, the operating lease may allow a farmer to get by without making a large investment or a long-term commitment. For example, a farmer might lease an extra tractor for a month or two during the peak season and avoid or postpone purchase of another tractor. In general, however, the operating lease does not substitute for purchase.

A financial lease is a substitute for a purchase with debt financing. The item is leased for a major portion of the life of the asset. Normally the item is completely paid for through the lease payments over the life of the lease. Furthermore, such a lease is noncancellable. A farmer who signs a lease contract is committed to lease the item and to make the payments for the entire period covered.

Advantages of Leasing

The advantages frequently attributed to leasing are often only advantages of certain leases or for particular farm situations. Each lease and farm situation must be evaluated to determine the specific advantages that apply.

1. Freed Working Capital - When down payment is required with debt financing, a lease may reduce the strain on current cash flow by providing 100 percent financing. Not having to make a down payment releases cash flow for use in other parts of the business where returns may be higher.

   Many leases, however, require advance payments or security deposits which use up cash just like a down payment. For example, the payments on a machine leased for five years with annual payments in advance will be quite similar to the payments with a 25 percent down payment and the remainder financed over four years. When the item is obtained the farmer makes either the down payment or the first lease payment. At one year intervals thereafter, another loan payment or another lease payment is made.

   Working capital is freed only when the advance payment and security deposit are less than the down payment required with a loan. Many leases require no security deposit and only one or two months lease payment in advance. In these cases a working capital advantage may be gained if the down payment with a loan is substantial.

   On many farms there is no freed working capital with the lease. This is the case for farmers who can obtain a 100 percent financing from a lender, either because of an excellent credit rating or by pledging other assets as security. A lender with a blanket security agreement covering all of a farmers machinery will frequently lend 100 percent of the funds required to meet any new equipment needs.

2. Benefical Tax Treatment - Land with no depreciable improvements is the primary asset on which improved tax treatment can be gained with a lease. On purchased land only the interest part of the payments is tax deductible; the principal represents nondeductible capital investment. With a lease, the entire payment is deductible. There is no investment tax credit involved with the land purchase so a farmer has none to lose with leasing.

Nonland assets such as machinery, buildings and cattle can be depreciated and both depreciation and interest are tax deductible. With modern cost recovery (depreciation) methods, items are frequently depreciated faster than the rate of write-off implied by the lease payments. This is particularly true for buildings and equipment with expected lives in excess of five years which can be depreciated over five years under the new tax law. The depreciation plus interest deduction is often similar to lease payments and may even exceed the lease payments in some cases. Thus, it is unlikely that leasing of machinery, buildings or cattle will result in either reducing or postponing taxes.

One of the current primary motivating factors for leasing is the transfer of tax credits from the farmer to the lessor in return for a lower lease payment. The lessor is usually a high tax bracket investor that can make good use of additional investment tax credit (ITC) and depreciation deductions. If the tax credits are of more value to the lessor than the farmer, both farmer and lessor can gain by having the lessor use the tax credits and transfer part of the savings to the farmer through reduced lease payments. As owner of the asset the lessor always gets the investment tax credit. Most lessors will not allow transfer of the ITC to the farmer. Those who do adjust the lease rate to at least compensate for the loss.

3. Improved Cash Flow - Likely the most advertised and most frequently mentioned advantage attributed to leasing is improved cash flow. Many leases do provide a cash flow gain, particularly during some years of the lease. However, not all leases will improve farm cash flows and in some cases what appears to be a cash flow advantage is not. For example, consider a machinery lease with annual payments of $12,800 on a $50,000 machine. When compared to the $16,300 annual payments on a 16 percent loan, the cash flow advantage seems obvious. However, the lease payments are in advance; and loan payments are not. When the timing of <u>all</u> payments are compared (table 1), there is clearly no cash flow advantage. In fact there is a definite cash flow disadvantage in the first, and often the most critical, year.

   In assessing the cash flow effects of a lease it is important to compare the lease with a loan with the exact terms that the farmer could obtain. The loan repayment period, in particular, has a strong effect on the level of loan payments. For example, the annual payments on a $1,000 loan at 16 percent interest are $422 over three years and $238 over seven years. Cash flows on a lease with annual payments of $300 look good compared with a 3-year loan but poor compared with a 7-year loan. A lessor can usually find loan terms for promotion purposes that make the before-tax cash flows of a lease look attractive. The farmer and lender must make sure that the loan terms used in the comparison

Table 1. Timing of Payments for Lease vs. Purchase on One Machinery Lease (Before-Tax Cash Flows)

	Year[a/] 0	1	2	3	4	5
	($000)					
Lease Payments:						
Annual	12.8	12.8	12.8	12.8	12.8	0
Cumulative	12.8	25.6	38.4	51.2	64.0	64.0
Loan Payments:						
Annual	0	16.3	16.3	16.3	16.3	16.3
Cumulative	0	16.3	32.6	48.9	65.2	81.5

a/ From delivery of machine; year 0 is the date of delivery, year 1 is one year later, etc.

are valid for the farm situation.

Taxes also significantly affect cash flows. With a lease, the farmer receives no investment credit but deducts the lease payments instead of the depreciation and interest in calculating taxable income. Federal investment tax credit (ITC) alone improves the first year cash outflows by ten percent of a purchased item value. Some of the ITC on purchased items may be recaptured in later years if the life is less than five years, but the cash flow impact is still large. Further, in some states, state ITC will additionally improve cash flows with purchase. An appropriate comparison of cash flows must be conducted on an after-tax basis. Assessing leases without considering the tax effects is likely the most frequent error made by those evaluating leases.

The variability in cash flows found with leases is illustrated in table 2. The after tax cash flows for seven dairy cow leases with headquarters in the Northeast and North Central states range from quite favorable to very unfavorable. The only generalization that can be made from this data and similar data for machinery and structure leases is that some leases provide a cash flow advantage and others do not; with some the advantage occurs early in the life of the lease; with others it occurs later.

Another potential cash flow advantage of a lease is payment stability. Once the lease rate is agreed upon, it usually does not change for the duration of the lease. The farmer is able to lock in a set payment. During periods of highly volatile interest rates farmers with only variable rate loans available may find this feature attractive. Care must be excerised, however, to insure that the lease payments are less than the loan payments at the highest expected interest rate. This payment

Table 2. Cash Flow Impact of Leasing[a/]

Typical Farm Situations

Dairy Cow Leases

Lease Number	Year 1	2	3	4	5	6	7
	---after-tax cash flow advantage with purchase---						
1	$- 93	$-229	$-256	$ 840	$	$	$
2	123	- 17	- 41	- 77	-101	-112	1005
3	246	19	- 11	998			
4	-1	-137	-164	932			
5	329	46	5	- 38	907		
6	-116	-252	-279	817			
7	62	- 63	4	- 2	- 56	- 67	1156

a/ 100 percent financing obtainable; maximum repayment period on loan is four years or duration of lease.

stability is most important to farmers with tight cash flow situations who cannot bear the risk of increased payments.

4. Flexibility - It is a common misconception that the financial lease provides flexibility similar to that of an operating lease. That is, by leasing the cows, machinery or structure the farmer has the right to unilaterally decide to return the item and stop making the payments at any time. The farmer has no such right! Financial leases are non-cancellable contracts, committing the farmer to make payments for the duration of the lease period. Some machinery leases include an option to buy within a limited period of time, but this is a merchandizing technique with the time period for conversion stated in the lease and the farmer does not have the option of returning the leased item.

   In general, the farmer has less flexibility with a lease than with purchase. Use of a purchased asset can be discontinued by selling the asset and paying off the loan. With leasing, the farmer can stop using the asset but cannot legally stop making the payments.

5. Lower Security Requirements - In some cases farmers may be able to lease items they cannot borrow the funds to purchase. In these cases the lessor is requiring less security or accepting a higher risk situation than conventional lenders are willing to take. This makes the asset available to the farm when it could not otherwise be obtained. If the return to use of the asset is very high, it may be profitable for the farmer in this situation to lease the asset even if the implicit interest rate with the lease is high.

   This advantage of leasing accrues to anyone who can lease by is unable to obtain the funds for purchase. Some lessors will require security and risk at levels similar to lenders. Others will accept the higher risk situation. Each lease must be investigated to determine its availability to farmers with less security to offer.

Disadvantages of Leasing

Most of the disadvantages of leasing relate to the specific characteristics of particular leases. There are, however, three general disadvantages.

1. High Cost - Recent studies conducted at Cornell have shown that leasing is unprofitable for an average farmer with an average lease. For example, a study of equipment leases offered by dealers in the Northeastern U.S. indicated that leasing a 110-horsepower tractor for three to five years cost $80 to $110 per year more on an after tax basis than purhcase at average existing interest rates. Similarly a 1981 analysis of a widely used structure lease showed annual after-tax costs of $400 to $500 per year higher than purchase. A recent study of dairy cow leases found average annual after-tax costs to be $121 per cow higher with leasing than with borrowing at 16 percent interest. While many of these numbers do not indicate excessively higher costs with leasing, the important point is that in all cases the average farmer in a 30 percent tax bracket who can borrow funds from other sources at current rates does not gain from leasing.

   In assessing the cost of leases it is important to remember that the APR (annual percentage rate) cannot be used to compare leasing costs with borrowing costs. The APR is a before-tax concept that is useful only in comparing situations with similar tax treatment. Thus, it is very useful for comparing one loan with another loan. However, since the lease transfers many of the tax benefits of ownership to the lessor, the farmer's tax situation with a lease differs significantly from his or her tax position with purchase. For example, a major machinery manufacturer offers a lease with an APR of 10 percent, but when evaluated on an after-tax basis for a farmer in the 30 percent tax bracket, the lease is equivalent to purchase with funds borrowed at 17 percent interest (APR).

The APR on a lease can also be misleading because the residual value of the item at the end of the lease period is not normally included in the APR calculations. With purchase of the asset the farmer gets any residual value regardless of the source of financing. With the lease, however, the residual value goes to the lessor unless the farmer can buy the asset at the end of the lease for at or near no additional cost. When the item has value at the end of the lease and that value goes to the lessor, the APR understates the relative financing costs.

2. Loss of Residual Value - Normally the farmer does not own the item at the end of the lease period. Although this fact seems quite obvious, some people appear to forget it when considering longer term leases. Since the farmer does not own the asset, any value it has is lost.

   During periods of inflation the increase in value of an item can be important. For example, consider the increased value of used machinery during the 1970s. A farmer who leased a $50,000 tractor for seven years in 1975 may have expected the tractor to be worth $10,000 in 1982. However, if the tractor is worth $40,000, the farmer has lost $30,000 in gain, and a clause that allows buying it at market value is of no help. Only if there is a written option at a stated purchase price is the farmer protected from appreciation loss.

3. Reduced Credit Availability - In some cases the existence of a lease on some assets may limit a conventional lender's willingness and ability

to meet future financing needs of the farm business. When the lessor takes a security agreement covering other assets in addition to those leased, any equity in those other assets is unavailable to provide security for future loans. With reduced security the regular lender may be forced to require a higher down payment or to limit lending for future machinery replacement or capital investment items. This is particularly troublesome where the lessor takes a blanket security agreement on all personal property.

The lenders security position may also be reduced if leased livestock are commingled with owned livestock and the owned livestock are security for a loan. Because animals are frequently replaced on a continual basis, the identity of leased animals versus owned animals is difficult to maintain. Default will then result in conflict between the lessor and lender.

Profitable Leasing Situations

Although the average lease is not a profitable alternative for the average farmer there are situations where leasing pays. The research on cattle, equipment and structure leases consistently identifies similar types of conditions where leasing has the most potential. Being in one or more of these situations, however, does not guarantee profitability, but does indicate that leasing should be carefully evaluated.

1. Unable to Borrow Funds - If the farmer is unable to borrow but can lease, whether leasing is more or less expensive than borrowing is irrevalent. In this case the important question is whether the asset (cows, equipment, structure) will be sufficiently profitable to pay the costs of leasing and leave sufficient net return to the farmer. Because many leases are high cost, the item leased must generally be very profitable to make leasing a good alternative.

2. Low (Zero) Tax Bracket - Farmers with low net incomes, a large number of exemptions or rapidly expanding businesses, may have a zero marginal tax rate. If this situation is expected to continue over the life of the lease the tax benefits of ownership are of little value. Thus, tax benefits can be given up without cost to the farmer. If the lessor compensates the farmer for the tax benefits through a lower lease payment, leasing may become profitable.
3. Unable to Use Investment Tax Credit - A business with low taxable income, or large amounts of investment tax credit from other investments, may have little use for additional tax credit. Such unusable credit can be given up without cost to the farmer. However, because ITC can be carried forward, its use in future years must be considered. When the credit can be used next year its value is only modestly less than if used today; if it cannot be used for 10 or 15 years the tax credit likely should be considered unusable for evaluating a lease.
4. Better-than-Average-Lease - There is a great deal of variability in lease terms, particularly for cows. Even though the average lease may be unprofitable and some are extremely costly, there are good ones that can provide an attractive alternative for some farm situations. The trick, of course, is to identify which leases are the good ones. This will take some pencil pushing and careful consideration of loan terms, tax credits, cash flow requirements and other factors listed above.
5. Very High Cost of Borrowed Funds - When institutional lenders are charging 14 to 16 percent interest, the best leases are generally equal to borrowing funds at 18 to 22 percent. A farmer who must pay abnormally high interest rates may find leasing attractive.
6. Cash Flow more Important than Profitability - For some farmers, cash flow may be <u>the</u> overriding concern. A farm with such problems may be

willing to sacrifice some profitability for improved cash flow. If there is reason to believe that the problem is temporary, a lease with a cash flow advantage in the early years may be helpful. The lease must be carefully selected, however, because only some leases improve cash flow.

7. Declining Asset Prices - If the purchase price of the asset being leased is expected to decline over the lease period, that loss is borne by the lessor. Further, purchase of the item can be delayed until the price is lower.

Summary

There is a great deal of variability in the rates and terms of financial leases offered farmers for leasing cattle, equipment and structures. The advantages and disadvantages most frequently cited generally apply to only some leases. Freed working capital applies only when 100 percent financing is unavailable and the security deposit and advance payments are not large. Leases generally do not provide improved tax treatment, but transfer tax benefits from the farmer to the lessor. Some leases provide improved cash flow, others do not. The financial lease is a noncancellable contract and, thus, generally provides less flexibility than purchase with borrowed funds. Those with limited borrowing capacity may be able to obtain assets through leasing that would otherwise be unavailable.

The average lease is a higher cost method of obtaining assets for the average farm than is purchase with borrowed funds. There is, however, great variability in terms and some leases are profitable for particular situations. Farmers most likely to find leasing profitable are those who are in very low tax brackets, are unable to use investment tax credit, are unable to borrow from other sources or find an exceptionally good lease.