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Farm Building Leases

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Background

Periodically, farmers or landowners will call county Extension offices seeking to find out how much to charge or offer to rent a farm building or grain bin. Because of the infrequency and uniqueness of these questions, they can often be difficult to answer. However, the same economic principles that apply to other common rental arrangements, apply to renting farm buildings as well.

Competitive Markets

As with cash rental arrangements on other types of assets, the competitive market approach is the first option for determining rental rates on buildings. That is, the "going rate" represents the market-based rent on the particular type of building in question. Unfortunately, in many cases the market for renting farm buildings is very thin, meaning that there are few buildings being rented or people seeking to rent buildings (i.e., a "going rate" doesn't exist). If there is not a known market for renting buildings, other approaches must be used to establish equitable rental rates. However, in other cases an established market does exist for renting buildings. Grain bins are good examples. Commercial grain storage facilities provide a competitive market rental rate that farmers and landowners can use when establishing rental rates for grain bins.

Cost Equals Revenue

Owner's Costs When market rental rates are not available or are uncertain, an appropriate rental rate can be determined by using the cost equals revenue (MR=MC) principle. By estimating the annual fixed and variable costs of a building, a rental rate can be determined. Fixed costs, which include depreciation, interest, repairs, taxes, and insurance, are incurred whether the building is used or not. Variable costs, such as water, electricity, and repairs associated with use, increase as the building is used. Variable costs, if any, can be estimated by using past bills as an indicator or forecast of future costs.

Fixed costs can be somewhat more difficult to estimate. Repairs, taxes, and insurance are often estimated as a proportion of new replacement cost – e.g., 1-2%. Annual depreciation and interest (opportunity) costs may be a little more difficult to estimate. In addition to having to estimate a new replacement cost, a useful life (in years) and salvage value at the end of that useful life must also be estimated. Assuming a straight-line depreciation, annual depreciation cost can be calculated as:

Annual Depreciation = (New Cost – Salvage Value)/Useful Life.

Annual interest (opportunity) cost can be calculated by multiplying the average value over the life of investment by an appropriate interest rate. Annual interest costs can be calculated according to the following:

Annual Interest = (New Cost + Salvage Value)/2 * Interest Rate.

The *KSU Building Rent* spreadsheet automatically calculates these costs based on inputs provided by the user. Using the default example in the spreadsheet, a 50' x 70' enclosed building, with a new replacement cost of $20,000 and a salvage value of $2,000 ($20,000 * 0.10), has an annual depreciation cost of ($20,000 - $2,000)/30 = $600. Annual interest costs equal ($20,000 + $2,000)/2 * 0.07 = $770. Repairs, taxes, and insurance costs are estimated at $500 per year ($20,000 * 0.025). Total annual fixed costs for this example equal $1,870, or $0.53 per square foot. Any variable costs could be added to the total fixed costs to calculate an annual rental rate for the building.

The annual costs of owning a building, as calculated above, will likely be the upper limit a building owner would charge. This is especially the case if there are very few potential renters. In this situation, a building owner may have to settle for a lower rental rate. As long as the rental rate covers variable costs, the building owner should rent out the building. If there are many potential renters, the building owner should seek a rental charge that covers all fixed and variable costs. It should be pointed out that there may be short-run situations where rents will exceed costs due to a strong demand and a limited supply – e.g., grain bins in years of bumper crops. Whether there are many potential renters, or few, a building owner should always attempt to cover as many fixed costs as possible.

This approach is general enough that it can be used for many different types of facilities. For example, this approach has been used to estimate costs (i.e., rental rates) for machine sheds, hay barns, swine farrowing, nursery, and finishing barns, dairy parlors, feedlot pens, irrigation equipment, and grain bins.

Added Value to Renter Another approach to determining rental rates for farm buildings is to calculate the added value of the building to the renter. Like the Owner's Cost method, this approach can be used for many types of facilities. This can be done by using a simple partial budgeting approach like the one outlined in *Rental Agreements For Farm Machinery, Equipment and Buildings (NCR No. 214)*. In this approach the added value of the building is calculated as:

> *Added income* (from using the building) + *Reduced costs* (from not using or owning an alternative building) - *Reduced income* (which would be earned from an alternative item) - *Added cost* (from using the item to be rented, but not including the rent itself).

The NCR publication also provides a grain storage example of this partial budgeting approach. In this example, the added income is the higher expected price from storing grain ($3.00/bushel). Since the alternative to storing grain is selling it at harvest, there are no reduced costs. The reduced income in this example is the selling price of the crop at harvest ($2.40/bushel). Added costs of storing the grain include interest, drying, shrink, aeration, and handling ($0.40/bushel). Given the assumptions in this example, the renter could pay $0.20/bushel for the rental of the storage facilities.

Each of these approaches for estimating rental rates can provide a good starting point for the owner of the building and the person desiring to rent the building to begin their negotiations. How much the ultimate rent varies from these values will depend on many factors (e.g., quality of building, length of lease, local supply and demand of similar facilities). As with any lease, more important than any formula to determine the rental rate is the importance of good communications between the two parties involved.

Resources

Dhuyvetter, K.C., G.L. Hamman, and J. Harner, III. 2000. "The Economics of On-farm Storage." Kansas State Univ. Coop. Ext. Serv. Bull. MF-2474. Accompanying Excel spreadsheet available at www.agmanager.info/crops/marketing/publications.

Edwards, W. and F. Benson. 1984. "Rental Agreements for Farm Machinery, Equipment, and Buildings." North Central Regional Ext. Pub. 214.

Pershing, D. and J.H. Atkinson. 1989. "Figuring Rent for Existing Farm Buildings." Purdue Univ. Coop. Ext. Serv. Bull. EC-451.

Taylor, R., D. Blasi, K. Dhuyvetter. 1995. "Large Round Bale Hay Storage." Kansas State Univ. Coop. Ext. Serv. Bull. MF-1066.