Flexing Gross Revenue in the Flexible Cash Rental Arrangement

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Flexible cash rental agreements are designed so that landowner and tenant share in the boom-bust cycles of farming. The tenant assumes nearly all the risk in a cash rental arrangement. The tenant and landowner share risk in proportion to input costs paid or output received in a crop-share agreement. A flexible cash rental arrangement is a hybrid between a cash and a crop-share rental agreement that allows for some of the tenant's risk, had he/she been cash renting, to be shifted to the landowner. However, with increased risk there is a greater chance for higher profit. Therefore, over several years the landowner should receive a monetary return greater than had the landowner been involved in cash rental agreement, but less than had the landowner been involved in a crop-share rental agreement. Figure 1 indicates the trade-off between risk and return for the landowner and tenant for different rental arrangements.

Flexible cash rental arrangements allow a landlord to share in high prices and/or yields; however, the landowner also must share in low prices and/or yields. The tenant decreases his/her risk relative to a cash lease agreement and in turn gives up some profit potential. One advantage is that if a flexible cash lease is designed that satisfies both parties, the arrangement can be used for multiple years. Of course a new written and signed lease should be completed each year (unless the lease is a multiple year lease), but the method for calculating the rent would stay the same.

Types of revenue flexible cash rents

Flexing for revenue involves indirectly flexing both price and yield simultaneously. There are advantages, to all parties, of flexing both yield and price. For example, flexing for gross revenue allows the following scenarios to be avoided; 1) a situation in which only price is flexed and actual yield is low and price is high allowing the landowner to incur disproportionate returns; 2) a situation in which only yield is flexed and actual yield is below normal but the price received by the tenant is substantially above average allowing the tenant to incur disproportionate returns. Below are four examples of flexing for gross revenue.

1. Basic gross revenue flex
Rent is determined by adjusting the base rental rate by the ratio of current gross revenue to some pre-established gross revenue level based on historical observations. The tenant and landowner will need to determine the base gross revenue prior to agreeing to the contract.

Example: Assuming the tenant will plant corn on the acreage, the lease states the base rent is $80/acre and the base gross revenue is $200/acre. The base gross revenue was determined by using the last 5-year average gross revenue for the field. The current year's gross revenue was determined using actual production and the average local price between September 15 and December 1. The actual gross revenue was $220. Therefore, the rent is \[
80 \times \left( \frac{220}{200} \right) = 88/acre.\]
2. **State percentage of the current crop’s value**

Prior to the crop year, both tenant and landowner agree how to determine the current year’s yield and price, as well as the percentage share of the crop used for calculating rent. (This is very similar to a crop-share agreement, except price is included and no input costs beyond land are incurred by the landowner).

*Example:* The agreement states that the landowner will receive a cash rent payment equal to 30% of the actual yield at a set price (such as the average local weekly Wednesday price from September 15 to December 1). Assume an average corn yield of 110 bushels per acre, and an average price from September 15 to December 1 of $2.10/bushel, rent would be \[(110 \times 30\%) \times \$2.10\] = $69.30/acre

3. **Minimum base rent plus a percentage of increased value**

Both parties agree in advance on a fixed base cash rent, current year’s price, normal yield and how rent will increase. A ceiling could be used with this method, but the floor price would be the fixed base rent.

*Example:* Fixed base rent is agreed to at $65/acre, based on an average soybean yield of 40 bushel/acre and past average price of $5.75/bushel for a typical expected value of \((40 \times 5.75)\) of $230 per acre. Assume a good year and actual yield was 60 bushel/acre and price of $6.00/bushel. If it were agreed that rent would increase 30% for increases in value per acre, then rent would be:

\[
65 + (((60 \times 6.00) - (40 \times 5.75)) \times 30\%) \\
65 + (360 - 230) \times .30 \\
65 + 39 = $104/acre
\]

The rent is the greater of the $104/acre calculated or the $65/acre fixed rent.

4. **Fixed payment plus harvest payment**

For fixed payment plus harvest payment the tenant and landowner determine a base cash rent. For the base cash rent, 50% is paid in the Spring. The remainder of the rent is paid by the tenant following harvest. The base cash rent is not used in the calculation of the Fall payment. The Fall payment is based on a pre-determined $/bushel value. This value should, in conjunction with the Spring payment, be a little below the long-run cash rent payment because the landowner is assuming some of the production risk.

**Corn:** \[(\text{Cash Rent} \times 50\%) + \text{[harvest yield} \times \$0.35/\text{bu.}] = \text{Adjusted cash rent}\]

**Soybean:** \[(\text{Cash Rent} \times 50\%) + \text{[harvest yield} \times \$1.00/\text{bu.}] = \text{Adjusted cash rent}\]

*Example:* A tenant is renting two fields from a landowner. The tenant and landowner determine that the base cash rent is $80/acre for corn and soybean acreage based on historical yields of 110 bushels/acre for corn and 42 bushels/acre for soybean. The $/bushel flex is set at $0.35/bushel/acre for corn and $1.00/bushel/acre for soybean for this example. The tenant pays the landowner a Spring payment of $40/acre ($80 \times 50\%)
for the corn acreage and $40/acre ($80 x 50%) for soybean acreage. At the time of 
harvest, yields are 120 bushels/acre for corn and 30 bushels/acre for soybean. The Fall 
payment is then $42/acre (120 x $0.35) for corn and $30/acre (30 x $1.00) for soybean. 
The total payments are then:

Corn: \[\$80 \times 0.50 \] + \[120 \times \$0.35/\text{bu.}\] = \$82 
Soybean: \[\$80 \times 0.50 \] + \[30 \times \$1.00/\text{bu.}\] = \$70

**Determination of Base Payment, Yield, and Price**

Many of the above methods require a base cash rent, base yield or base price. Here are a few tips 
in determining those values. These are only guidelines and individuals can choose to use 
whatever works best.

**Base Payment:** A good method for establishing a fair base cash rent, for both the landlord and 
tenant, takes some negotiating by each party. If the landlord calculates the cost of ownership and 
the desired return, and the tenant calculates the amount that he/she can afford to pay, then both 
parties can work together to reach a compromise and fair cash base rent. Return for the landlord 
is typically calculated at 5 to 7% of the current agriculture value of the land. Worksheets to help 
in determining tenant and landowner contributions can be obtained from County Extension 
offices, by purchasing publication NCR-75.

**Base Yield:** The Farm Service Agency office has production history on most farms. This is a 
good place to start. If the landlord or tenant has actual records from the farm to be rented, then 
those records would be ideal. County averages could be used if there are absolutely no records, 
keep in mind the county averages may not reflect an accurate picture of that farm. It is suggested 
that a historical three to seven year average be used as a beginning point in the negotiation.

**Base Price:** Several options exist for a base price. One method for determining a base price is to 
use the local historical (3 or 5-year) harvest season average. Why use the harvest average price, 
which is typically lower than yearly price? Because any increase in price, beyond harvest 
reflects the tenants marketing ability. Therefore the price increase would be a return to tenant 
management and not landowner contribution.

**Establishing a Minimum and Maximum Payment**

Many of the flex cash rental methods could easily have a clause for a rental rate floor and 
ceiling. Why would the tenant and landowner be interested in floors and ceilings? In a low 
price, low yield, year the landowner would still get a guaranteed payment. In a good year, high 
prices and high yields, the tenant would benefit as a return to management.

How do the tenant and landlord agree on floor and ceiling prices? There are no exact rules to do 
this, but here is one suggestion. The first step would be to set the base rent amount. Assume the 
base rent is $75. At this point, both parties consider how far they could or would be willing to go 
in an extreme year. For example, assume both parties would agree to go $25 either direction. 
Therefore, the floor or minimum rental payment would be $50 per acre, this amount would be
guaranteed to the landowner, and in a bad year the rent could go this low. The ceiling or maximum price would be $100, so in an extremely good year, the landowner could get up to this amount.

**Minimal requirements of a Flexible Cash Rental Agreement**

When a flexible cash rental agreement is agreed upon, be sure to include the method of calculation for all crops grown. It is possible to use different rental methods for different crops. If the lease agreement is for different crops, include the number of acres of each crop and how rent will be calculated.

**Lease Requirements (Minimal)**

- name(s) of parties
- accurate description of land
- beginning and ending dates
- amount of rent to be paid
- statement of how and when rent is to be paid
- signature of all parties involved

**Other Guides of Interest and Sources of Information**

- G 404  Farm Land Values
- G 424  Missouri Crop-Share Leasing Patterns
- G 426  Farm Lease Agreement
- G 427  Cash Rental Rates in Missouri
- NCR-75  Fixed and Flexible Cash Rental Arrangements for your Farm