



Determining Cropland Cash Rental Arrangements

Curriculum Guide

I. Goals and Objectives

- A. Learn three common methods of deriving fair cash rental rates to use when negotiating a lease arrangement.
- B. Understand the risk characteristics of a cash lease and how a “risk adjustment” can be made to account for the shift in risk to the tenant (relative to a share lease).

II. Description/Highlights

- A. Crop producers in many areas rely heavily on rented land in their operations. Crop land is typically rented in one of three ways: (1) cash rent, (2) crop share, or (3) cash/share combination. While crop share leases have historically been the most common method of renting land, the interest in cash rents has been increasing in recent years.

Rental arrangements between landowners and producers are very important and can have significant impacts on the risk and returns of the operation. Producers must understand how rental arrangements affect their operations.

- B. **Determining cash rent rates.** Economic theory says that equilibrium rates occur where supply of land equates with the demand for the land. Thus, the question arises, how do we arrive at an equilibrium price? Landowners and tenants typically resort to some sort of negotiation and claim to want a cash lease rate that is “fair” to both parties involved.
- C. Historically, cash renting has been much less common than renting on a crop share basis. However, recently the interest in cash rent has been increasing. Possible explanations for this increase are: (1) increased planting flexibility, (2) landowners not wanting to share increased expenses associated with new tillage/cropping systems/production technologies, (3) ever older landowners wanting fixed income, (4) increasing farm size and number of landowners per tenant, and (5) difficulty in prorating long run capital investments in certain technologies (e.g., precision agriculture).

- D. In areas where there is sufficient cash renting, the prevailing cash rent market prices provides an approximation of the appropriate measure of “fair” rent. In some situations there is no established rental rate, or if there is one, the rate has extenuating circumstances that preclude it from being appropriate (e.g., rate includes buildings or machinery, rent is between family members). In these situations, the following methods are typically used in determining a starting point for negotiations between the owner and the tenant: (1) landowner’s cost, (2) amount tenant can afford to pay, and (3) crop share adjusted for risk.
- E. Landowner’s cost refers to the opportunity cost of land investment, less expected capital gains, plus real estate tax. The idea behind this is that a land owner expects some net rate of return (capital gains plus cash rent less real estate taxes) on his investment otherwise the land would be sold. This net rate of return can be approximated by the historical average rent-to-value ratio. The cash rent would be calculated by multiplying the rent-to-value ratio by the market value of the land.
- F. The “amount a tenant can afford to pay” method of establishing cash rents says that the tenant receives all income and pays all expenses and whatever is left over is available for cash rent to the landowner. Generally, the landowner’s cost and amount a tenant can afford to pay represent lower and upper bounds to the rent negotiation process.
- G. The most practical approach to determine a cash rental rate is using a crop share approach since many landowners and tenants are familiar with crop share arrangements. This approach determines the cash equivalent amount of an equitable crop share arrangement then often makes a risk adjustment to that value. The risk adjustment allows the risk to be shared between the producer and the landowner.
- H. **Risk-return tradeoff.** The tradeoff between risk and return is generally characterized as increased returns being associated with increased risk. In order to realize higher average returns, a person must be willing to take more risk(s) and a person desiring less risk will need to accept lower returns. Adapting this to the crop share and cash rent framework, it would seem reasonable that a landowner would be willing to accept lower returns with cash rent relative to crop share because of the lower risk. Likewise, because of the increased risk associated with cash rent, a producer would want a higher return relative to crop share.

Review Figure 1 illustrating risk and return trade offs.

- I. Producers must consider what the impact of moving from share to cash rent can have on the profitability and risk of their operations. Specifically, it is important to realize how much the variability in income might increase with cash renting compared to crop share renting.

- J. **Risk Premium.** A risk premium, or risk adjustment, represents a reduction in the cash rent relative to what is expected from a crop share arrangement, to account for the shift in risk from the landowner to the tenant. The amount of the risk adjustment is a function of an individual's aversion to risk as well as the income variability. Since an individual's aversion to risk is difficult to quantify, a recommended risk premium cannot be calculated. Observations in Kansas suggest that a risk adjustment of 5-10% is typical.
- K. Risk premiums may not always be observed (i.e., cash rents might be equal or greater than crop share cash equivalents). Possible reasons for this are: (1) environmental stewardship concerns, (2) short-term lease, and (3) producers are not average.

III. Potential Speakers

- A. Extension Economist
- B. County Extension Agent

IV. Review Questions

- A. What are the three methods of deriving a cash rental rate for starting the negotiation process?

Answer: (1) Landowner's cost, (2) amount a tenant can afford to pay, and (3) cropshare adjusted for risk.

- B. What is the purpose of a risk premium (or adjustment) on a cash lease?

Answer: A risk adjustment accounts for the shift in risk from the landowner to the tenant, relative to what would be expected with a cropshare rental arrangement.

V. For More Details

Fambrough, J. and J.C. Stribling. The Texas Deer Lease, L-2334. The Texas Agricultural Extension Service. 1988.

Hayenga, Wayne A. Farm and Ranch Leases Twenty-Six Considerations, LA-2, Farm and Ranch Management Handbook. Texas Agricultural Extension Service.

Higginbotham, Billy J. and Greg M. Clary. Development and Management of Fishing Leases. Southern Regional Aquaculture Center. June, 1992.

Lovell, Ashley and James Novak. Calculating an Equitable Crop Share Lease Agreement, LA-1, Farm Management Handbook. Texas Agricultural Extension Service.

White, Larry D. and Robert E. Whitson. Leasing Texas Rangelands, B-1582. Texas Agricultural Extension Service.



! Three Most Typical Land Rent Arrangements

- ☞ Cash Rent
- ☞ Crop Share
- ☞ Cash/Share Combination

! Rental arrangements can have significant impacts on the risk and returns of the operation.

! Determining Cash Rental Rates

- ☞ Equilibrium rates occur where supply of land equals the demand for land
- ☞ Cash lease rate that is “fair” to both parties



! **Recent Increase in the Interest in Cash Rent is Due to:**

- ☞ Increased planting flexibility
- ☞ Landowners reluctant to share higher costs associated with new production practices
- ☞ Older landowners wanting a fixed income
- ☞ Increasing farm size and number of landowners per tenant
- ☞ Difficulty in prorating long run capital investments

! **Starting Point for Land Rent Negotiations**

- ☞ Landowner's cost
- ☞ Amount a tenant can afford to pay
- ☞ Crop share adjusted for risk



! Landowner's Cost

- ☞ Opportunity cost of land investment less expected capital gains plus real estate tax

! Amount Tenant Can Afford to Pay

- ☞ Cash available after tenant receives all income and pays all expenses

! Cropshare Adjusted for Risk

- ☞ Determines the cash equivalent amount of an equitable crop share arrangement, with a risk adjustment to that value



! Risk-Return Tradeoff

- ☞ Increased returns associated with increased risk
- ☞ It is reasonable that a landowner would be willing to accept lower returns with cash rent because of the lower risk
- ☞ Tenant desires a higher return relative to cropshare

! Risk Premium

- ☞ Represents a reduction in the cash rent relative to what is expected from a crop share arrangement, to account for the shift in risk from the landowner to the tenant

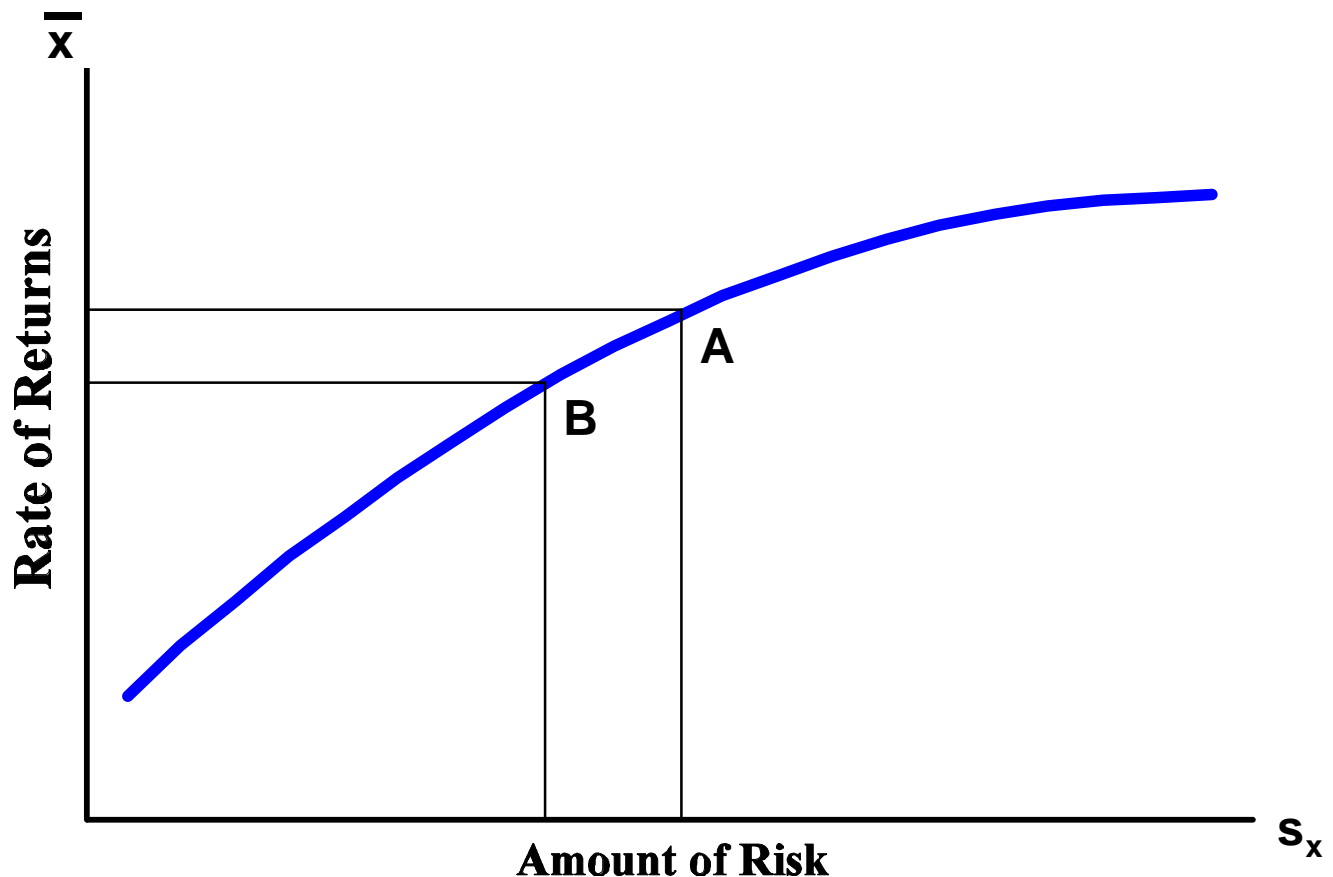


Figure 1



! Risk Premiums may not always be observed

- ☞ Environmental stewardship concerns
- ☞ Short-term lease
- ☞ Producers are not average