UNIVERSITY OF FLORIDA
EXTENSION
Institute of Food and Agricultural Sciences

Managing Financial Risk in a Firm[1]

P.J. van Blokland[2]

Introduction

The purpose of this paper is to show how to manage financial risk in a firm. Managing financial risk is essential to having a successful business. Determining financial risk involves calculating total costs of production, knowing current market prices, and setting asking price and profits.

By definition, *asking price* is the desirable sale price for products. Calculating the asking price requires three things. First, calculate the total costs of production per unit of sales. Second, calculate the additional charges that must be added to the total costs before determining the asking price. And third, compare the asking price with the market price and decide what happens when the market price differs from the asking price.

Calculating Total Costs of Production

Calculate Cash Costs Per Unit

Cash costs include everything for which the firm pays cash. Examples include labor plus associated taxes and FICA, chemicals, fertilizers, supplies, utilities, interest on debt, fuel, repairs, etc. In a typical agricultural firm, cash costs are usually at least 75 percent of total costs.

To calculate cash costs per unit, add up all the cash costs and divide them by the number of units that will be sold. For example, if cash costs are $750 and the firm plans to sell 100 units, the cash costs per unit are $7.50.

Calculate Depreciation Costs Per Unit

Depreciation rates are set by the Internal Revenue Service (IRS). They can be applied to machinery, equipment, buildings, and vehicles that are used by the firm. Depreciation accounts for about 15 percent of the total costs for a typical agricultural firm, and is usually pro-rated. Pro-rate depreciation according to the percentage of sales that each enterprise contributes to total sales.

To calculate depreciation costs per unit, add up the depreciation costs and then divide them by the number of units that will be sold. For example, if the depreciation costs are $150 and the firm plans to sell 100 units, the depreciation cost per unit is $1.50.

Calculate Overhead Costs Per Unit

Overhead costs are those costs that are associated with running the firm's office. Consequently, they include office staff, accountant and legal fees, office equipment, and miscellaneous items such as business travel and entertainment. They

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2. P.J. van Blokland, professor, Department of Food and Resource Economics, University of Florida, Gainesville, FL.

are typically 10 percent or less for a normal agricultural firm.

To calculate overhead costs per unit, add up the overhead costs and then divide them by the number of units that will be sold. For example, if these costs are $100 and the firm plans to produce 100 units, the overhead costs per unit are $1.00.

Calculate Total Costs Per Unit

Cash costs plus depreciation costs plus overhead costs equals total cost. For example, if the firm's total costs are $1,000, the cost per unit is $10.00

Additional Costs

Before determining the asking price, there are additional items that must be paid that are not part of the cost of production. These include (TIPS):

- Income and FICA **T**axes for firm's owners. Assuming 12% for total costs and a cost of $10.00 per unit, taxes should equal $1.20.
- Re-**I**nvestment monies to replace used up capital. Assuming 8% for total costs, re-investment costs should equal $0.80.
- **P**rincipal payments on borrowed money.
- **S**alaries for the firm's owners. Assuming 10% of total costs for living expenses, this will add $1.00 to the calculation.

Comparing Asking Price with Market Price

The market price will seldom be the same as the asking price. This is unimportant. What is important is the difference between market price and asking price. There are four possibilities.

Market Price Is Greater Than Asking Price

This means that there is more money to use for any or all of the additional costs. For example, owner's taxes increase. The owner's now have more money to pay off debts, re-invest money in the firm, or spend.

Market Price Is Less Than Asking Price But Greater Than Total Costs

This means that there is less money to pay additional costs. For example, owners may have to take a salary cut.

Market Price Is Less Than Asking Price But Greater Than Cash Costs

This means that the firm can continue to operate in the short run, but cannot continue if the situation persists. The definition of "short run" depends on the commodity. For example, if the commodity is nursery stock, then the short run may be three or four cycles; if the commodity is groves, then the short run may be a couple of harvests. In any case, the short-run effect will be that the firm cannot pay all its depreciation and overhead costs. Therefore there will be no principal, re-investment, or salary, obviously an untenable situation in the long run.

Market Price Is Less Than Asking Price And Less Than Cash Costs

This means stop full-fledged production. Perhaps sit out a season. If the situation persists, sell out or do something else.

Conclusion

For managing financial risk, this tool works and is perhaps the best risk-measuring tool there is. It will show whether you can or cannot make money from any enterprise. If the answer is no, then you know what you have to do.