
FINANCIAL RISK IN AGRICULTURAL OPERATIONS

Risk and uncertainty are two factors farmers need to tackle every day. From growing conditions, to input and output pricing, to marketing their product, and investment decisions, farmers operate based on imperfect information. Imperfect information increases uncertainty and risk and leads to losses.

Risk can be defined as the potential damage or loss, associated with an activity or action, when the conditions defined as ideal to guarantee its proper operation or success change. Uncertainty refers to imperfect knowledge about an outcome or refers to situations when the outcome is unknown, whereas in risk, you are aware of the probability of loss. The greater the uncertainty, the greater the risk. In other words, the less knowledge we have about the future, the greater the associated risk.

There are five areas of risk covering the full spectrum of agricultural activities. These include production, marketing, financial, legal, and human-relation risk. The interrelation of these types of risk and how it can be reflected in the financial position of an operation make managing these risks a priority. It is extremely important to establish risk management strategies that minimize the risk and contribute to the success of agricultural operations.

FINANCIAL RISK

Financial risk includes all risks that threaten the financial health and stability of the agricultural business. At a fundamental level, it relates to any financial activity such as covering expenses, lending, and borrowing, use of personal savings, and planning for investments. More formally, financial risk is associated with the management of capital (properties, vehicles, machinery, etc.) that the agricultural business owes, as well as the management of money used to finance operations, which can be obtained from own funds (savings), from other formal institutions (bank loans, mortgages, credit cards) and from unofficial lenders (family loans, angel investors, cooperatives, etc.).

Managing financial risk guarantees the sustainability and financial health of the agricultural business. To that, it is important to consider the time factor. Depending on the period defined for the analysis, the risk associated with the activity may vary based on a short-, intermediate- or long-term financial obligations.

Components of financial risk

The main components of financial risk are:

- The cost and availability of capital
- The ability to meet cash flow needs and commitments in a timely manner
- The ability to absorb short term financial shocks
- The ability to maintain and grow the equity in the business

Agricultural operations finance their activities through equity or owned capital and debt or borrowed capital. The cost and availability of capital is important when considering financing options. A way to think of the cost of capital is **interest rates**. Lenders assess the financial position of an operation through liquidity, solvency, and repayment capacity.

The second component, the ability to meet cash flow needs and commitments in a timely manner, indicates the capacity of the agricultural business to pay its obligations with its current assets if these were sold. What we refer to as **liquidity**. The current ratio and working capital are good indicators of liquidity.

Another component is the ability to absorb short-term financial impacts. It deals with the operating cash (assets - obligations) available to absorb shocks that may be generated unexpectedly.

Finally, the ability to maintain and increase business capital indicates the ability of the agricultural business to maintain its performance in the long term. It considers the operational efficiency of the business, that is, its ability to maximize profitability by making use of its assets.

Financial Risk management & financial statements

Efficient financial risk management relies on building an information system that allows you to evaluate past performance, assess current financial position and plan for the future. Four key financial statements comprise this information system. The balance sheet, income statement, statement of cash flows and statement of owner's equity.

The **balance sheet** reports information on current and noncurrent assets and liabilities, and owner's equity over the accounting period. It is a snapshot of the financial position of an operation and as such, it allows you to determine the cost and availability of debt capital. It provides information on the operations' liquidity, net working capital, solvency, and equity; key when considering financing options.

The **income statement** or **profit & loss statement** shows the net income for the operation during the accounting period between two balance sheet statements (beginning and ending balance sheets). Key statement for profitability indicators including rate of return in assets, and operating profit margin.

The **statement of cash flows** keeps records of cash transactions. It records when cash was generated from selling products, inventory, or assets. It also reports on cash transactions related to paying debt, interest rates, production inputs, family living expenses and any asset purchases. Cash flow statements allow you to see if you meet debt obligations in time and if you have enough cash in hand to cover short-term obligations without liquidating any assets.

The **statement of owner's equity** measures the financial growth and progress of an operation. Information from this statement allows you to assess whether actions and activities within the accounting period have added to or decreased the value of your operation.

Good financial records are essential to analyze the financial performance and health of your business and help reducing financial risk. A farmer can

evaluate the liquidity, solvency, growth and profitability of the business and make well-informed decisions about investments, credit options, the course of the business, and changes in operations to improve business performance.

Financial risk management tools

In addition to building a good financial information system, several financial tools can help manage or minimize risk. Financial risk management is operation-specific, and the use and effectiveness of these tools depend on the individual farm situation.

Maintaining liquid reserves. Holding a reserve such as cash or assets easily converted to cash (e.g., receivables, inventory) can help manage short-term shocks and continue operations. The owner, considering the financial obligations that must be paid, determines the level of liquid reserves. However, we caution that there is a difference between cash and savings reserves vs inventory ones as to their impact of paying out debt and continuing farm operations.

Owner's equity. Farmers can finance their operations through debt and equity. By knowing your Debt-to-equity you can make better decisions regarding financing. In many cases, lenders would like to see a 1:1 relation. Keeping business' equity as high as possible by retaining profits or attracting investors can open doors of formal and non-traditional lenders, or it can cover liabilities if some activity does not go as planned.

Rates and Credit Reserves. When lenders finance agricultural operations, farmers can use interest rates and credit reserves

as financial tools to manage risk. To minimize the risk derived from increasing interest rates farmers can choose fixed interest rates that can be higher when the loan is made but it prevents the cost of it to increase when interest rates go up. In the same way, farmers can maintain a credit reserve by not borrowing the limit amount established by lenders. This means that farmers will have available loan funds that can be borrowed if some activity results in negative outcomes.

Renting/Leasing. Agriculture is capital intensive. Main capital investments include land and machinery. Renting or leasing can reduce financial risk particularly in cases where there is not enough capital and getting a loan adds more financial stress. By renting or leasing machinery or land, farmers can reduce financial risks but it does not mean that there are no other risks involved; legal is one of them.

Whereas the previous tools are directly associated with financial decisions, there are tools that help alleviate or mitigate financial risk.

Off-farm employment. Having a source of income that is not tied to agricultural activities helps farmers and their families manage losses and take away from the stress of covering living expenses. Off-farm employment can also mitigate costs related to health insurance, life insurance and retirement plans that can be more costly for the farmer to cover through private agencies.

Managing other types of risk. Production and marketing related activities can add to financial risk. The level of production and market prices determine the business' revenues from sales as well as

expenses. While making production decisions farmers can use enterprise budgets allowing them to determine crop-specific costs at different levels of production. Production practices, pest management, weather events all have a financial footprint. Similarly, for marketing risk. Price variations, market factors (access to markets, competition), marketing strategies can directly affect business's sales and so its incomes and financial stability.

The type of operation (e.g., agritourism, hunting areas) or labor-intensive operations can introduce human and legal risks, which can affect the operation's financial position. Either that is in terms of investment (safety, certifications) or liabilities and insurance. The synergies between the other types of risk and the financial one must be recognized and based on this; it must be managed as a priority.

Managing financial risk is key for the success of a farm business. A well-established financial information system complemented with some of these financial tools can help not only to reduce exposure to financial risk and other sources of risk due to interrelation, but also it can help to take critical decisions needed for the wellbeing, sustainability, longevity, and success of agricultural operations.

TOOLS FOR FINANCIAL RISK MANAGEMENT

- ☐ Do you keep financial records?
- ☐ Do you use financial records to monitor the financial position of the agricultural business?

FINANCIAL RISK MANAGEMENT CHECKLIST

- ☐ Is the business able to pay all short-term obligations without selling any asset?
- ☐ What are the main cash flows needs of the business? Is the business able to cover it?
- ☐ Is the business able to face a short-term shock that may appear?
- ☐ Do the activities add value to the agricultural business?
- ☐ Has the business capital grown in recent periods?

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