Enterprise Analysis: Farm Financial System Overview

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Dr. Kimberly Morgan

VIRGINIA
Beginning Farmer & Rancher
COALITION PROGRAM

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SOUTHERN EXTENSION RISK MANAGEMENT EDUCATION

FARM FINANCIAL SYSTEMS

OVERVIEW

Financial Risk Management Tool

- ✓ Recognize symptoms of problems
- ✓ Gather information to pinpoint the problem
- ✓ Make a diagnosis - identify possible problems
- ✓ Prescribe a remedy - take action to improve the problem area
- ✓ Follow up to see if problem is cured - control the business through common sense

Financial System Goals

- ✓ To define assets & liabilities
- ✓ To define revenue, expenses and cash flow
- ✓ To compare and contrast how assets are valued
- ✓ To compare & contrast a balance sheet and income statement
- ✓ To demonstrate whole farm and enterprise profitability
- ✓ To analyze alternatives and inform decisions

Why Financial Statements?

- ✓ To accurately determine the financial status based on PAST data
- ✓ To identify possible weaknesses or threats
- ✓ To take corrective actions from a management standpoint
- ✓ To apply (and qualify) for loans

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Value of Financial Statements

- ✓ Identify strengths & weaknesses of business
- ✓ May be financial, production, marketing, etc.
- ✓ Build on your strengths

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Value of Financial Statements

- ✓ Improve your weaknesses
- ✓ Identify possible corrective actions
- ✓ Identify limiting factors in obtaining credit
- ✓ What might a lender not like?

Summary of Statements & Budgets

Statement/Budget	Records Required
Balance Sheet / Net Worth Statement and Statement of Owner's Equity	Farm Assets Cost & Value Farm & Personal Asset Changes Livestock, Crop & Other Product Inventories Loan Balances
Statement of Cash Flows	Farm Income and Expenses Non-Farm Income & Expenses Debt Payments
Income Statement	Farm Income & Expenses Interest Payments Livestock & Grain Inventories Accounts Payable & Receivable
Enterprise Analysis	Farm Income and Expenses Livestock & Crop Yields

FARM FINANCIAL SYSTEMS

FINANCIAL STATEMENTS

Balance Sheet / Net Worth Statement

Components

- ✓ What do you own?
- ✓ What do you owe?
- ✓ What's the difference?

Balance Sheet / Net Worth Statement

What do you OWN?

Current - cash and near-cash items whose values will likely be realized in cash or used up during the normal course of business, including:

- Checking accounts
- Notes and accounts receivable
- Hedging accounts with commodity brokers
- Prepaid expenses
- Market livestock
- Crops on hand that will be converted to cash during the operating cycle of business
- Supply inventories (feed, fertilizer, seed and other farm supplies)

Balance Sheet / Net Worth Statement

What do you OWN?

Noncurrent - assets that yield services to a business over several years, including:

- Machinery & equipment
- Breeding livestock
- Buildings
- Other types of real estate
- Retirement accounts
- Water-handling facilities (irrigation, tile)
- Residence
- Various improvements, such as establishing orchards, controlling brush, add and repair fence, roads, ponds, etc.

Balance Sheet / Net Worth Statement

What's it worth?

- Cost Basis: original cost less any accumulated depreciation, "book value" used by accountants
- Market value: current fair market value, used by farmers & lenders

Balance Sheet / Net Worth Statement

What do you OWE?

<u>Current :</u> existing obligations that are payable in the next 12 months

- Accounts payable to merchants and supply companies
- Notes payable to lending institutions
- Accrued expenses – have been incurred but as a result of the statement date have not been paid, such as interest, taxes, rent and lease payments
- Current portion of all term debt – amount of principle on all term debt due within next 12 months

Balance Sheet / Net Worth Statement

What do you OWE?

Noncurrent: obligations having a maturity greater than 12 months, include noncurrent portion of notes payable on real estate and non-real estate assets.

Balance Sheet / Net Worth Statement

How does this help you?

1. Determine Net Worth (Owner's Equity): Difference between assets and liabilities
2. Liquidity: ability to meet obligations as they come due in the short run; current assets & liabilities
3. Solvency: ability to meet long-term financial obligations/fixed expenses, & achieve long term growth & profitability; difference between total assets and liabilities

Balance Sheet / Net Worth Statement

If the problem is LIQUIDITY….?

- ✓ refinance current debt
- ✓ slow expansion
- ✓ reduce operating debt
- ✓ liquidate assets
- ✓ cut costs
- ✓ improve profitability

Balance Sheet / Net Worth Statement

If the problem is SOLVENCY….?

- ✓ retain more net income
- ✓ reduce debt
- ✓ sell assets
- ✓ improve profitability

Income Statement

What did you EARN last year?

<u>Revenues</u>: All revenues earned from sales during the accounting period

- ✓ Cash = commodity produced and sold in same accounting period
- ✓ Noncash = inventory produced yet not sold, and, accounts receivable
- ✓ Gain or loss on sale of capital assets
- ✓ Non-farm adjustments, i.e., off-farm income, custom work, gov. payments, etc.)

Income Statement

What did you SPEND last year?

<u>**Expenses**</u>: all expenses incurred from operations during an accounting period

- ✓ Cash expenses = feed, seed, fertilizer, fuel, market livestock purchases, labor, insurance
- ✓ Non-cash = depreciation, accounts payable, accrued interest, accrued expenses (property taxes) adjustment for prepaid expenses

NOTE: Does not include Principal payments on loans! Principal is NOT an expense!! However, depreciation approximates principal payments.

Income Statement

How does this help you?

Shows if your business had a profit or loss last year, and how large it was!

Net Farm Income from Operations = Revenues – Expenses

Net Farm Income = Net Farm Income from Operations +/- gain/loss on sale of capital assets

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Income Statement

How does this help you?

- Should be considered as a starting point for analyzing profitability of the firm over a specific time period
- Amount available to provide return to farmer for one of four uses:
  1. Family living expenses and other withdrawals
  2. Payment of income and social security taxes
  3. Increases in cash or other farm assets
  4. Reduction in liabilities through principal payments on loans/other liabilities

Statement of Cash Flows

Follow the dollars…

: A listing of cash flows that occurred during PAST accounting period

- ✓Shows how cash entered and exited the business
- ✓Amounts
- ✓Timing

Statement of Cash Flows

Components

- ✓ Cash from operating activities = farm income and expenses
- ✓ Cash from investing activities = farm sales or purchases of assets
- ✓ Cash from financing activities = new borrowed capital, loans received, principal repayment, gifts and/or inheritances received

Statement of Cash Flows

Components

- ✓ Nonfarm income and expenses (sole proprietor)
- ✓ Beginning and ending cash on hand

NOTE: Does NOT include depreciation (this is NONCASH expense)

Statement of Cash Flows

How does this help you?

1. Determine liquidity (cash flow) and repayment ability (across short, intermediate & long term credit)
2. Does NOT show profitability (can be profitable and still not cash flow, and vice versa)

Statement of Cash Flows

How does this help you?

3. Obtain discounts on input purchases by planning ahead and knowing cash will be available
4. Payoff in tax planning by pointing out income tax effects of timing of purchases, sales & capital expenditures.

Statement of Owner's Equity

For the business only…

:Value of business after total claims of creditors are subtracted from the asset value

- ✓ Reconcile owner's equity stated at the beginning time period with the amount at the ending time period

Statement of Owner's Equity

Components

- ✓Change in Contributed Capital = Capital contributed to the business by its owners
- ✓Change in Retained Earnings = Earnings or business profit that has been left in the business rather than withdrawn
- ✓Change in Market Valuation = Any change caused by fluctuation market values when market valuation (rather than cost) is used

Statement of Owner's Equity

How does this help you?

Shows which of the 3 components caused changes in net worth of the business LAST year!

FARM FINANCIAL SYSTEMS

ENTERPRISE ANALYSIS

Why Enterprise Analysis?

Create and analyze budgets to:

- ✓Test out ideas on paper BEFORE committing resources
- ✓Analyze alternatives using economic principles

Value of Enterprise Analysis

Purpose of agribusiness budgets is to ESTIMATE:

- ✓ Profitability of a plan
- ✓ Impact of proposed change in plan

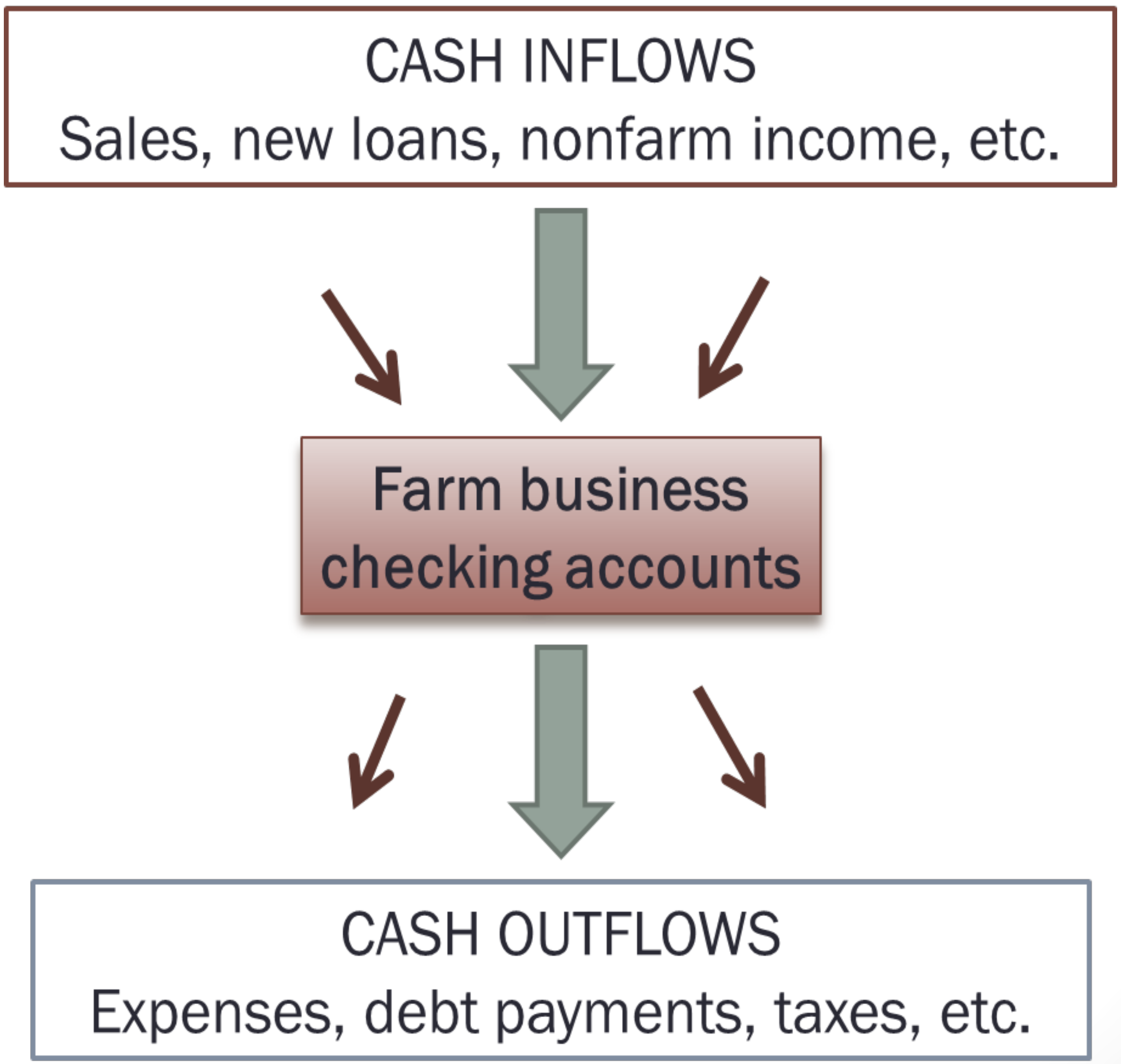
Cash Flow Budgets

Plan the dollar pathway…

: Summary of projected inflows and outflows over given period of time

- ✓ typically future accounting period
- ✓ divided into quarters or months

Cash Flow Budgets



Cash Flow Budgets

How does this help you?

Estimate amount and timing of future borrowing needs & ability to repay on time!

Partial Budgets

What are your options?

: Formal and consistent method for making management decisions based on relatively ***small*** changes to existing farm plan.

Partial Budgets

How does this help you?

Compare profitability of one alternative (usually current situation) with profitability of proposed alternative

Whole Farm Budgets

What are your options?

: Summary of available resources & planned type & volume of production

- ✓ Organized into expected costs, returns and profitability of each enterprise in overall farm plan
- ✓ Time period can vary
  - Current or upcoming year
  - A typical or average year
  - Transitional period

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Whole Farm Budgets

How does this help you?

Analyze MAJOR change that affects several enterprises

- ✓ taking over new farm business
- ✓ adding more land to existing farm
- ✓ taking on partner for existing farm

Enterprise Budgets

What are your options?

: Organization of specific farm enterprise revenue, expenses, and profit data, constructed on a per-unit basis

- crops per acre
- livestock per head
- number of trees per acre

Enterprise Budgets

Components

1. **Title: List useful information**
   - ✓ What enterprise?
   - ✓ What distinguishing characteristics? Tillage practices, machinery assumptions, etc.

Enterprise Budgets

Components

2. **Revenues (receipts) - Quantity, unit, price per unit**
   - ✓ List all items produced by the enterprise (i.e. feeder lambs, wool, cull ewes/rams)
   - ✓ Estimate the price (value) per unit for each revenue-generating item

Enterprise Budgets

Components

3. **Costs**

- ✓Variable (operating or direct) costs
- ✓Calculate interest on operating costs:

Sum of all variable costs x annual interest rate x portion of year the money is used

- ✓Calculate total variable costs
- ✓Fixed (ownership or indirect) costs

Enterprise Budgets

Components

4. **Profits**
   - ✓ Total Revenue minus Total Costs
   - ✓ "Estimated returns to profit"
   - ✓ "Estimated returns to management & profit" if management opportunity cost omitted

Enterprise Budgets

How does this help you?

1. Demonstrate profitability of each enterprise
2. Create for different levels of production or, types of technology

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Enterprise Budgets

How does this help you?

3. Include opportunity costs (economic, not just accounting, costs)

Returns above variable costs:

Measure how much revenue remains after all variable costs are paid

Must be positive to operate in the short run!

Returns above total costs:

Measure how much revenue remains after all variable and fixed costs are paid

Must be positive to operate in the long run!

Enterprise Budgets

How does this help you?

4. Use EB to determine breakeven prices and yields

Price per unit to cover variable costs:

Lowest price you can receive, given a certain yield, to cover variable costs = Short-run breakeven price

Total Variable Costs / Yield per unit

Price per unit to cover total costs:

Lowest price you can receive, given a certain yield, to cover total costs = Long-run breakeven price

Total Costs / Yield per unit

Thank you!

KLMorgan@vt.edu
vabeginningfarmer.org
vabeginningfarmer@vt.edu

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