

# **BUDGETING**

Chapter 4

## **BUDGET TERMINOLOGY**

### **Budget:**

- A projection of income and expenses, used for planning the future

(A budget is also the set limit of spending, but we'll use budget as a projection in this class.)

### **Enterprise:**

- A common name for part of a farm, such as corn or dairy
- Usually a profit center
- Could also be a cost center such as a machinery shop

### **Income:**

A value that is received, or should be received, in return for goods or services

### **Expense or cost:**

A charge that is made, or should be made, for an item used in the production of goods or services

### Important distinctions

- Variable vs. fixed costs
- Direct vs. overhead costs (and listed costs)
- Cash vs. non-cash income and expense
- Opportunity costs
- Long-run vs. short-run
- Economic vs. accounting values
- Total, average, or marginal income & costs

### Variable vs. Fixed Costs

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Fixed costs           <ul style="list-style-type: none"> <li>▪ Occur no matter what or how much is produced</li> <li>▪ Depreciation</li> <li>▪ Real estate taxes</li> <li>▪ Full-time labor</li> <li>▪ Operator's labor</li> <li>▪ Family labor?</li> <li>▪ Interest on term debt</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>▪ Variable costs           <ul style="list-style-type: none"> <li>▪ Directly associated with volume</li> <li>▪ Seed, fuel, repairs, fertilizer, ...</li> <li>▪ Hourly labor, feed costs, veterinary expenses, ...</li> <li>▪ Interest on operating loans</li> </ul> </li> </ul> |
|---|--|

### Sunk costs

- All costs become fixed once they have been used or committed to use
- Once seed is planted, feed is fed, or gasoline is used in the tractor, these costs become fixed, or in common terms, "sunk"

### Direct vs. Overhead Costs

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Direct costs           <ul style="list-style-type: none"> <li>▪ Used directly by a specific crop or livestock</li> <li>▪ Most are variable costs</li> <li>▪ Corn seed is for corn</li> <li>▪ Hog feed is for hogs</li> <li>▪ Fertilizer is for crops</li> <li>▪ Etc.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>▪ Overhead costs           <ul style="list-style-type: none"> <li>▪ NOT used directly by a specific enterprise</li> <li>▪ Most are fixed costs</li> <li>▪ Depreciation</li> <li>▪ Full-time employees</li> <li>▪ General office expenses</li> <li>▪ Etc.</li> </ul> </li> </ul> |
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### Allocated costs

- Some costs are used by more than one enterprise and need to be allocated to each
- Costs, such as fuel, can be allocated by using engineering data
- Costs, such as general office expenses, are allocated in proportion to each enterprise's share in gross income or in variable costs

### Listed costs:

Published budgets often use the term "Listed Costs" to indicate that the budget total may not include every cost for a specific farm

### Cash Vs. Non-cash:

- Income and expenses can be either cash or non-cash items
- Depends on nature and timing of a transaction
- Cash transactions are any event where cash is exchanged
- Non-cash transactions usually involve a physical transfer but no cash
- Both cash and non-cash items are important

### Non-cash examples:

- Unpaid family labor
- Farm products consumed at home and by employees
- Crops fed to livestock on the farm
- Replacement stock raised on the farm
- Manure applied on your own crops
- Depreciation
- Interest on equity

### Opportunity Cost:

- Income that could be received from the best alternative use of a resource
- Salaries from other jobs
- Returns from other investments
- Time spent doing another task

### Long-run vs. Short-run

- What is the planning horizon?
- Short-run: 1 year or less
- Long-run: thought of as 7-8 years or more
- Affects choice of prices and quantities
  - Longer horizons require "more distant" information from a longer period, a broader geographical base, and a larger, more political economy
  - Shorter horizons require "closer" information from closer time periods and smaller geographical areas

### Economic vs. accounting values

- Is the question about what actually happened or what would happen?
- How is the value determined?
- How is the value allocated between enterprises?
- Is the value cash or non-cash?

### Total, Average, and Marginal Income and Costs

- Total for the farm
- Average per acre or animal
- Average per unit (bushel, lb., cwt., ...)
- Marginal return or cost
  - additional return or cost from producing an additional unit of output
- Marginal input cost (marginal factor cost)
  - cost of using an additional unit of a specific input

## TYPES OF BUDGETS

1. Whole-farm budget
2. Enterprise budget
3. Cash flow budget
4. Partial budget

## Enterprise budget

- A statement of expected returns, expected costs, and the resulting net returns for a certain enterprise
- Enterprise budgets are always developed on a “per acre” or “per head” basis
  - Never on a whole farm basis

## BUDGET DEVELOPMENT

### Budget development involves:

- Describing resources, inputs, and products
- Describing how these resources fit together
- Calculating receipts and costs & preparing enterprise budget reports
- Describing how enterprises are combined into whole farm or ranch plans & reports

### Sources of data:

- Income tax records and historical records
- Public information on prices and production levels for the major products
- Manufacturers, dealers, private companies
- Government and university research and extension units
- Other sources such as farmers, non-profit groups, and so on

### Data sources, cont.

- Labor requirements, wage rates, and benefits from local information, labor contractors, and union contracts
- Labor needs and productivity from individual records and other public and private sources

## Budget Units

- Enterprise budgets should be developed on the smallest rational unit of that enterprise
- Most crop budgets are “per acre”
- Most livestock budgets are “per head”
  - Some livestock budgets should use a larger unit (e.g., 100 or 500 laying hens)
- Use the unit used in published budgets for comparison purposes

## Develop enterprise budgets

1. From whole-farm records
2. By economic engineering

## From whole-farm records:

1. Determine costs of separate items for the whole-farm
2. Identify the enterprises on the farm
3. Classify costs as direct or indirect
4. Allocate direct costs and returns
5. Determine the best way to allocate indirect costs
  - On the basis of use
  - On the share of gross income
  - On the share of variable costs

## From whole-farm records, cont.

6. Calculate percentage of total use, gross income, & variable costs for each enterprise
7. Allocate the indirect costs
8. Calculate the costs per unit

## By Economic Engineering

1. Prepare a process map
2. Identify specific resources to be used
3. Specify input use levels
4. Select prices and costs
5. Assemble reports

## Budgets, Productivity, Competition and Structural Change

- To remain viable or to grow, a manager has to be as efficient as the industry requires to remain competitive
- The critical benchmark is
  - not the average
  - not today's requirements
- The critical benchmark is
  - what will be required in 10 to 15 years
  - the competitive edge

- Budgeting
  - In-class example