ANALYZING FINANCIAL POSSIBILITIES ON YOUR FARM/RANCH

FOUR BASIC QUESTIONS

- Where are we?
- How did we get here?
- Where do we want to be?
- How do we get there?

WHERE ARE WE?

- Many different ways to address this question, but financially
- What assets does the business own?
- What liabilities does the business have?
- Assets and liabilities are divided into two (sometimes three) categories
  - Short term (less than one year) and long term
- Can the business pay for its short-term cash commitments?
- Can the business generate wealth over time?

WHERE ARE WE?

- Balance sheet or net worth statement is the financial document that tells us where we are financially
- Net worth statement lists the assets and the liabilities
- These are divided between the short term and long term

HOW DID WE GET HERE?

- Checking past financial documents, especially the net worth statement, and the net income statement is an ideal way to trace what has happened to the farm/ranch over time
- Every farm will have random life events, but determining if the operation is moving forward, staying still, or slipping will determine the chances for success

WHERE DO WE WANT TO BE?

- Alice in Wonderland
  - “Would you tell me, please, which way I ought to go from here?”
  - “That depends a good deal on where you want to get to”
  - “I don’t much care where”
  - “Then it doesn’t matter which way you go”
- You have to know where you want to go

HOW DO WE GET THERE?

- Cash flow statement is an analysis of cash in and cash out over a certain period of time
- Cash flow budget is a projection of cash in and cash out over a certain period of time
- Goal is to analyze cash movement or to project when funds may be needed to pay debts/expenses

HOW DO WE GET THERE?

- Net income statement
  - Statement shows the income generated and expenses incurred by the business
- All income, not just the cash

FINANCIAL ANALYSIS WITH RATIOS

- Liquidity
- Solvency
- Efficiency
- Profitability

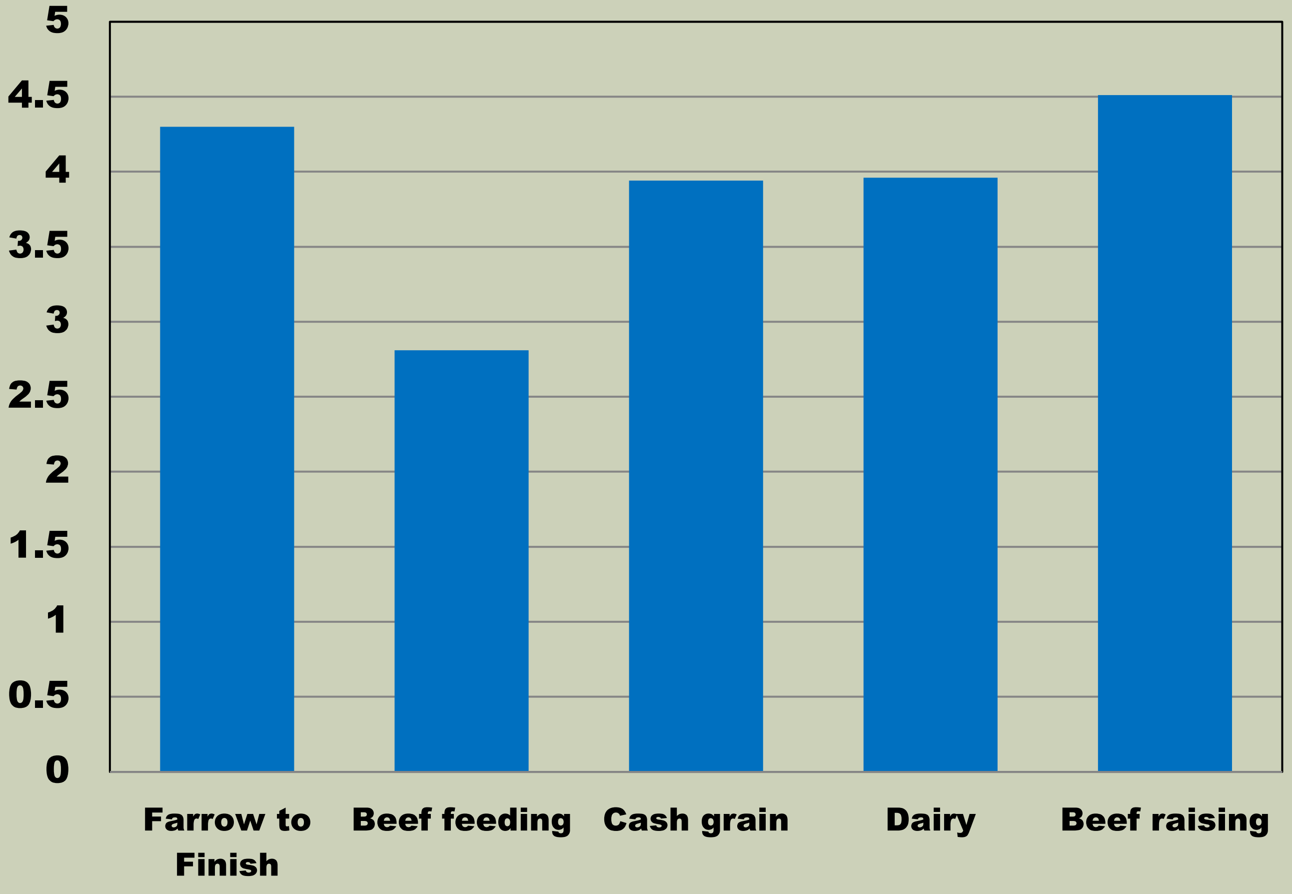
LIQUIDITY

- Measure of how debt obligations in next year can be met from cash or assets that could be turned into cash
- Two main measures
  - Current ratio
  - Working capital

CURRENT RATIO

- Current ratio = current assets/current liabilities
- Measure of short-term liabilities
- Adequate is typically 1.5 but this varies by type of operation
  - Dairy lower because of continuous flow of funds
  - Cash grain higher because of lumpy income
  - Ratio below 1.0 indicates potential trouble

EXAMPLE CURRENT RATIO BY FARM TYPE



WORKING CAPITAL

- Working capital is another liquidity measure

  WC = Current assets – Current Liabilities
- Measured at the beginning of the year
- Typically, 1/4 to 1/3 of the annual gross revenue
- Varies by type of farm/ranch

SOLVENCY

- Degree to which all debts are secured; mix of equity and debt capital used
- Several ratios used to measure solvency including the debt to asset ratio
- Primary measure of solvency is from the Net Worth Statement

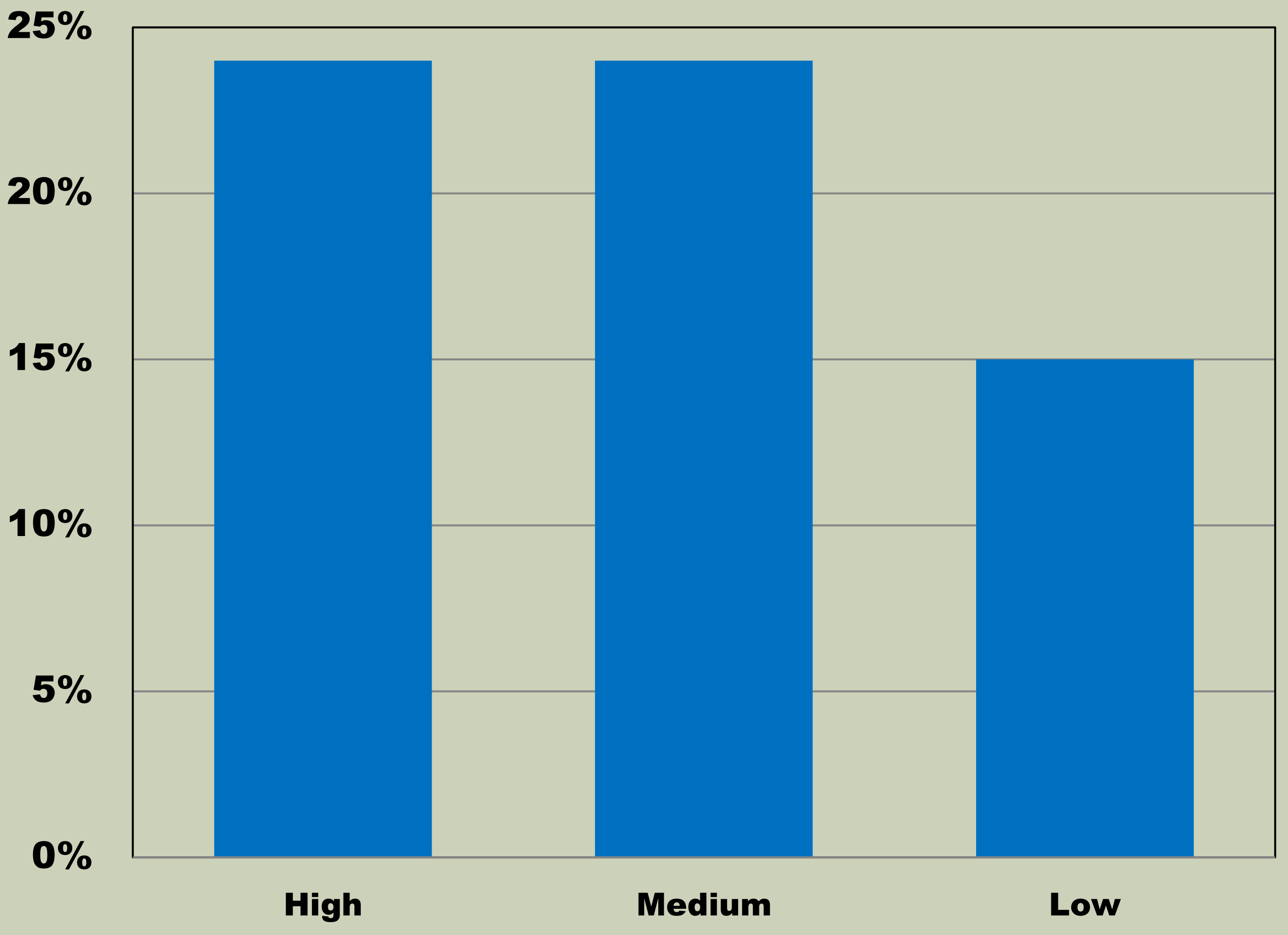
DEBT TO ASSET RATIO

- Remember debt is a tool; useful but it comes with a cost

  D/A = Total Liabilities/Total Assets

- Measures how much lenders are capitalizing business
- Ratios 30 to 40% are common

AVERAGE DEBT TO ASSET RATIO BY PROFIT GROUP



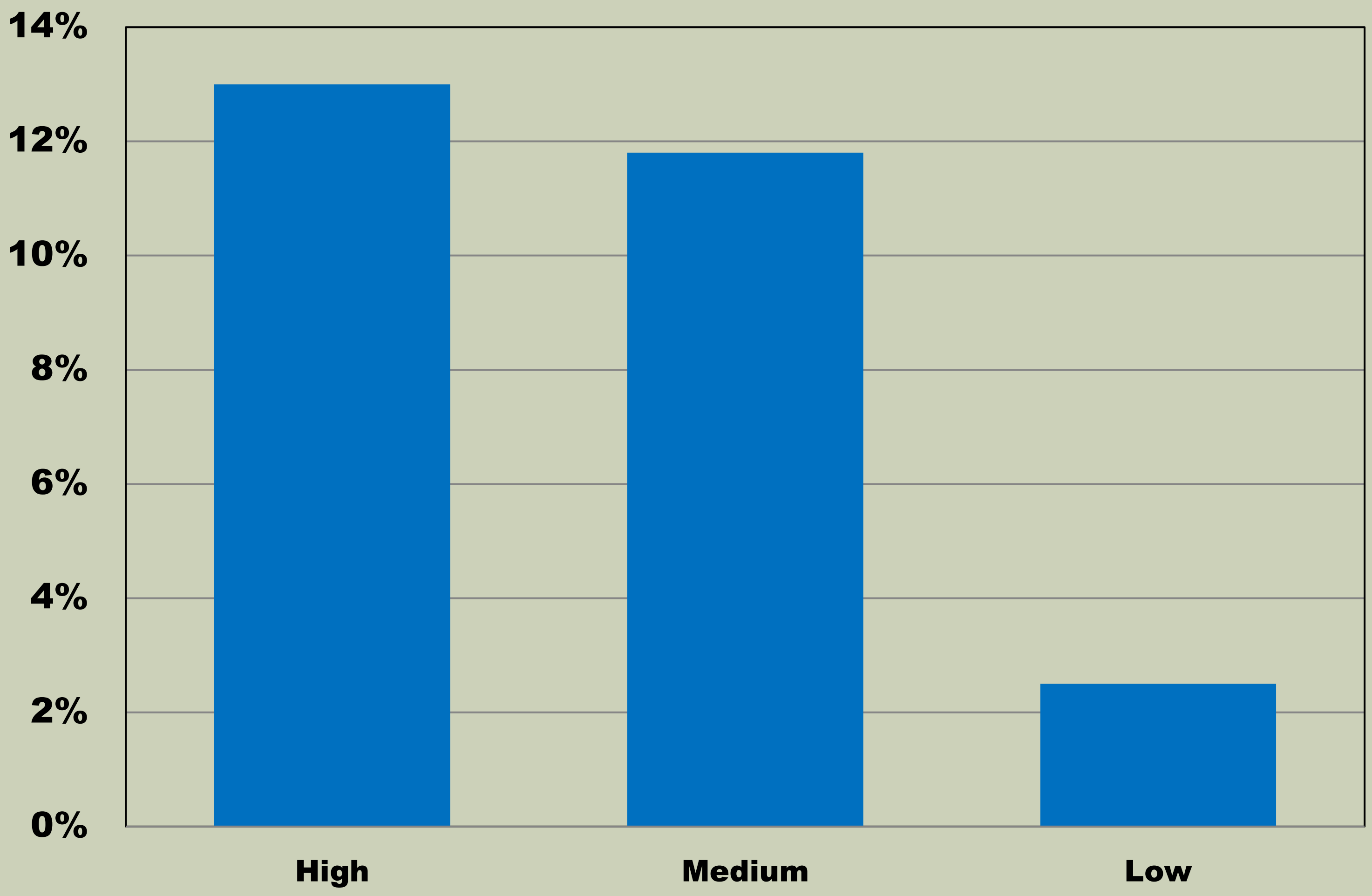
PROFITABILITY

- Difference between income and expenses
- Net farm income important measure
- Several other measures related to returns are relevant and important for our consideration
- Primary measures are from the Income Statement

RETURN ON FARM ASSETS

- Return on farm assets (ROA)=
  (net farm income + interest expense –
  unpaid operator and family labor
  and management) / value of the
  farm assets
- Variable
- Influenced by the amount of rented land

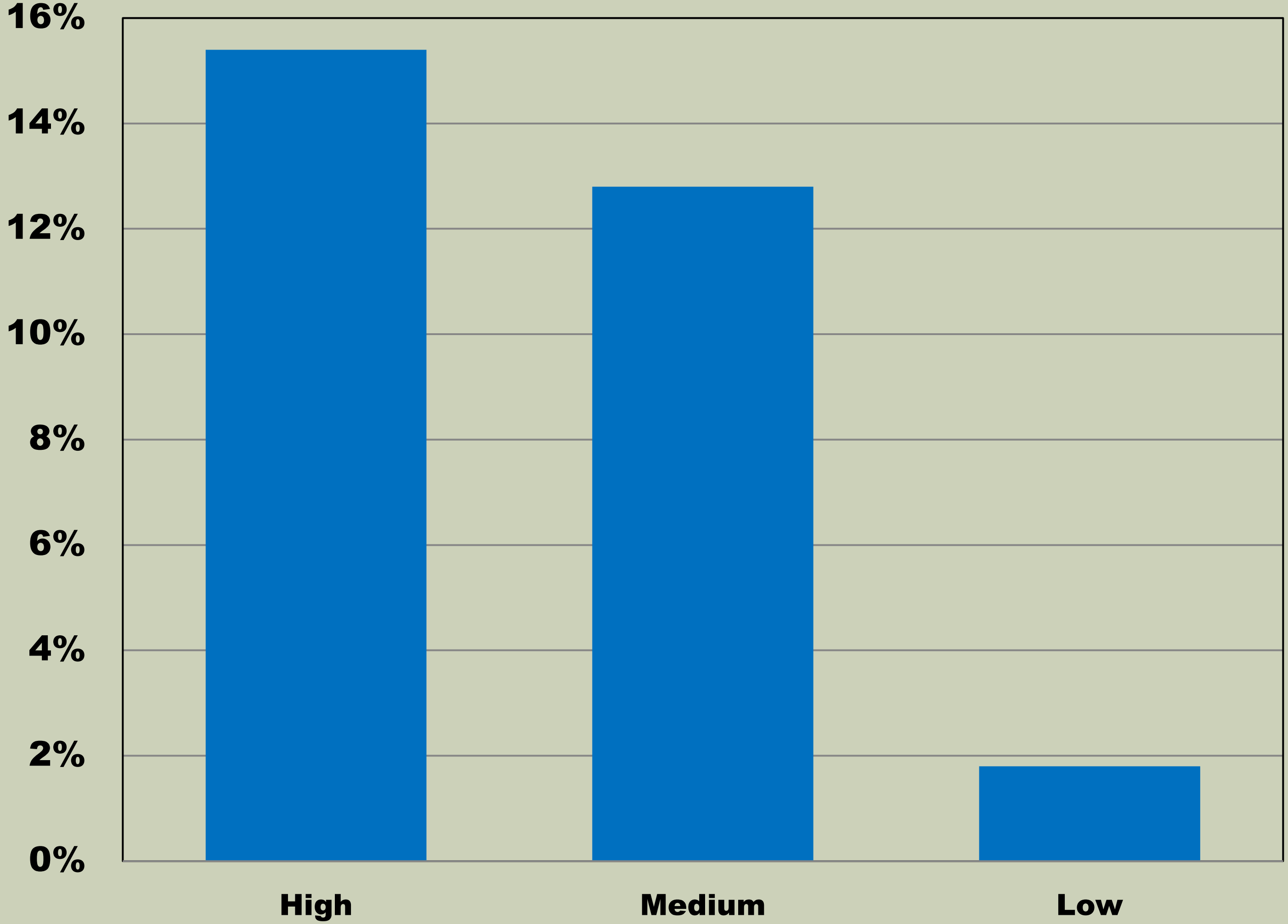
RETURN TO OWNED ASSETS BY PROFIT GROUP



RETURN TO EQUITY

- Return to equity (ROE) =
  (net farm income – unpaid labor and management) / net worth
- Amount of debt and the cost of the debt are important considerations with this ratio
- If cost of debt less than ROA then farm net worth will grow
- Measures return to the owners from letting the operation “use” their money

RETURN TO EQUITY BY PROFIT GROUP

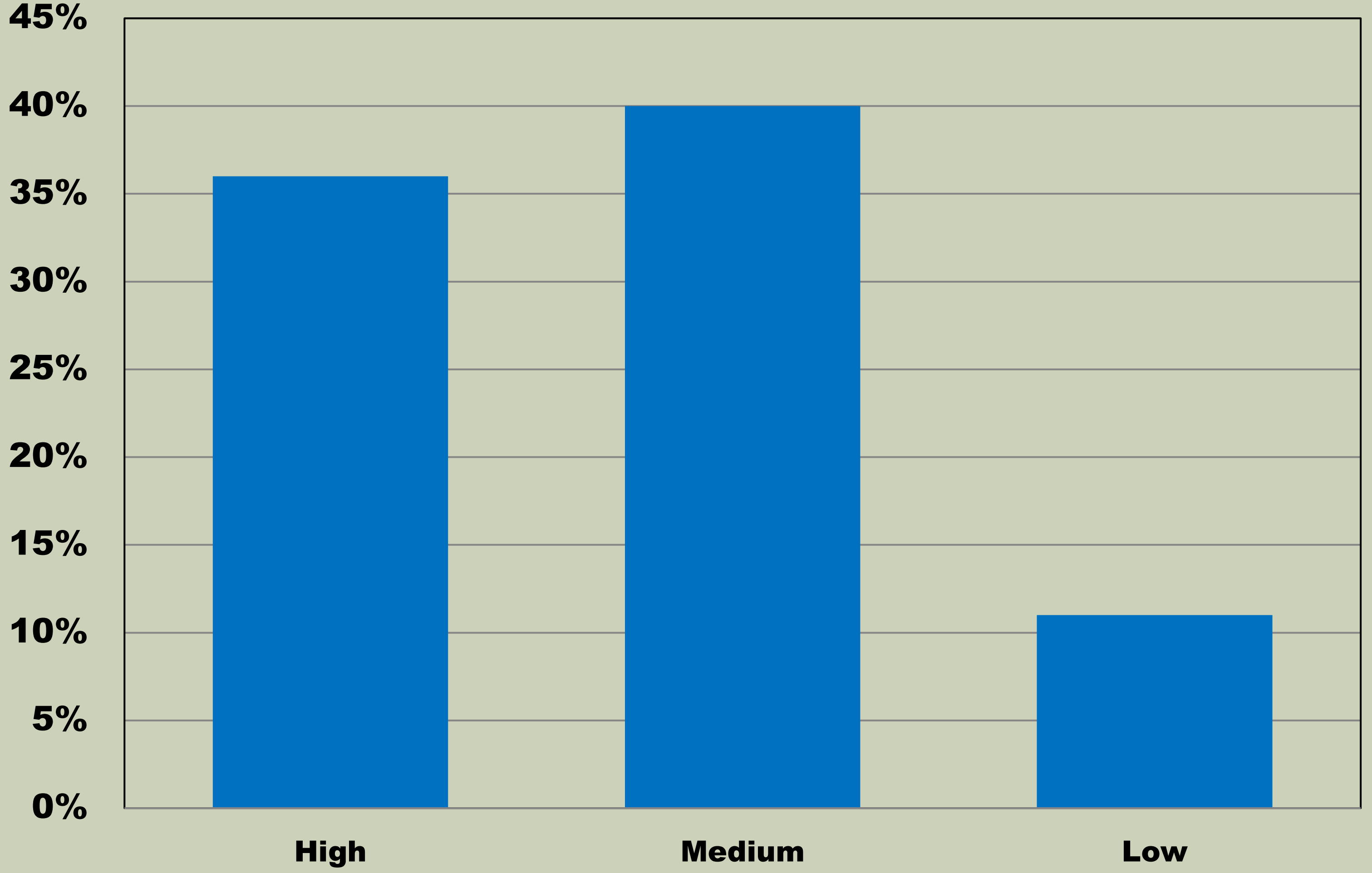


OPERATING PROFIT MARGIN

- Measures the efficient use of operating capital

  Operating profit margin = (Net farm income from operations + farm interest expenses – unpaid labor and management)/gross revenue

OPERATION PROFIT MARGIN BY PROFIT GROUP



ASSET TURNOVER RATIO

- Asset Turnover Ratio = Value of Farm Production/Total Assets Used

- Average ATR in agriculture was 15% in 2023*

*USDA Economic Research Service:
https://data.ers.usda.gov/reports.aspx?ID=17838

ASSET TURNOVER RATIO

- Measure of the efficient use of investment capital
- Amount of rented versus owned land will have an influence on the value of the ratio
- Measures the intensity of asset use

NET INCOME RATIO

- Net Income Ratio = Net income/
  Gross income

- Average net income ratio for agriculture was 25% in 2023*

*USDA Economic Research Service:
https://data.ers.usda.gov/reports.aspx?ID=17838

INCOME TO ACHIEVE YOUR GOALS

Net Income → **Gross Income** → **Total Assets**

Net Income Ratio · *Asset Turnover Ratio*

$ 50,000	= $ *125,313*	x *40%*	= $ *391,603*	x *32%*
$ 50,000	= $ *166,666*	x *30%*	= $ *532,481*	x *31%*
$ 50,000	= $ *333.333*	x *15%*	= $ *1,736,111*	x *19%*

USING YOUR RATIOS

- How do you know your ratios?
  - Use your own financial documents
- How can you change the ratios?
  - Increasing management for cost control
  - Increasing management to increase value of output
  - Increasing intensity of use for existing assets (rented land)
  - Acquiring more assets

USING RATIOS

- Use ratios from current farm as a starting point
- Remember that as changes are made these ratios may change
- Ratios vary considerably by size, profit level, and type of operation

FINANCIAL

- Remember ratios are indicators, not to be used alone
- If the net income ratio is 10% and an expansion doesn't change that then gross income must increase $10 for every dollar increase in net income
- You have to know where you are financially to know where you will be after a change

INCREASING INCOME FROM THE EXISTING OPERATION

- Increase the assets used
- Increase the efficiency with which the existing assets are used
- Increase the amount of gross revenue converted into net income

POSSIBILITIES

- Look for ways to more intensively use the current assets (additional enterprises, alternative production techniques, ….)
- Look for ways to improve the net income ratio (organic production, non-commodities ie, special attributes, improved marketing and production, ….)
- Look for ways to improve both ratios (new enterprises, ….)
- Acquire additional assets

RESOURCES

- Land
  - Quantity
  - Quality
  - Location
    - Market availability
    - Infrastructure
- Buildings
  - Function
  - Condition

RESOURCES

- Machinery
  - Type
  - Condition
- Capital
  - Owned
  - Available
  - Cost

HUMAN CAPITAL

- Labor
  - Amount
  - Quality
  - Timeliness
  - Additional at what cost
- Management
  - Skills
  - Marketing

ANALYZING THE POSSIBILITIES

- Remember operational goals and values
- Consider all the possibilities
  - Enterprises
  - Facilities
  - Working arrangements
  - Funding sources
- Be creative

THANK YOU!