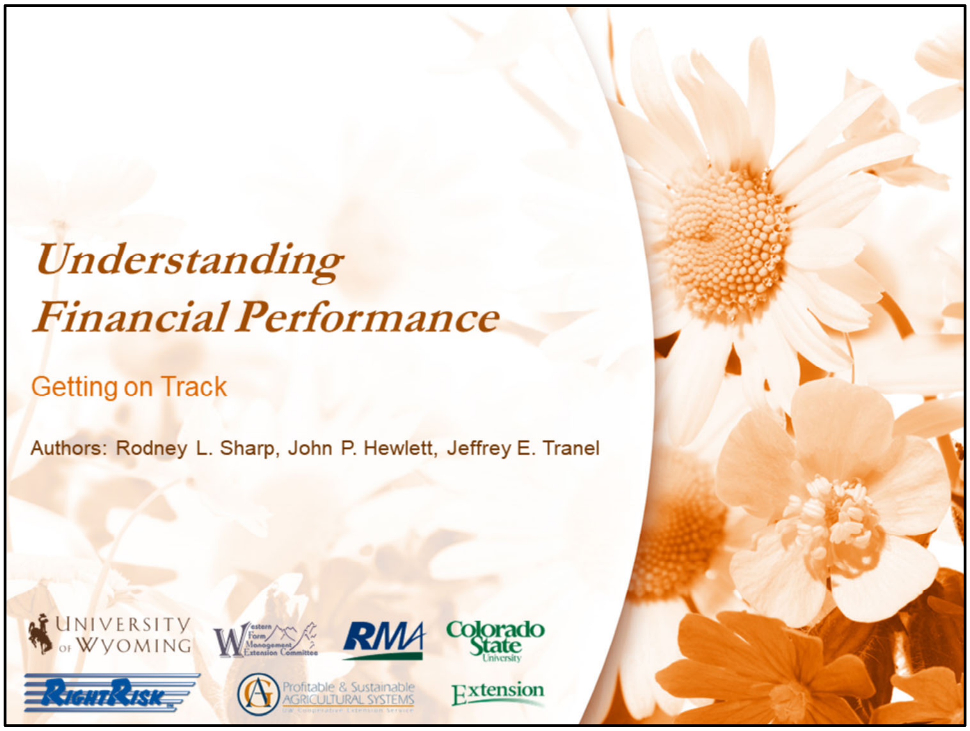
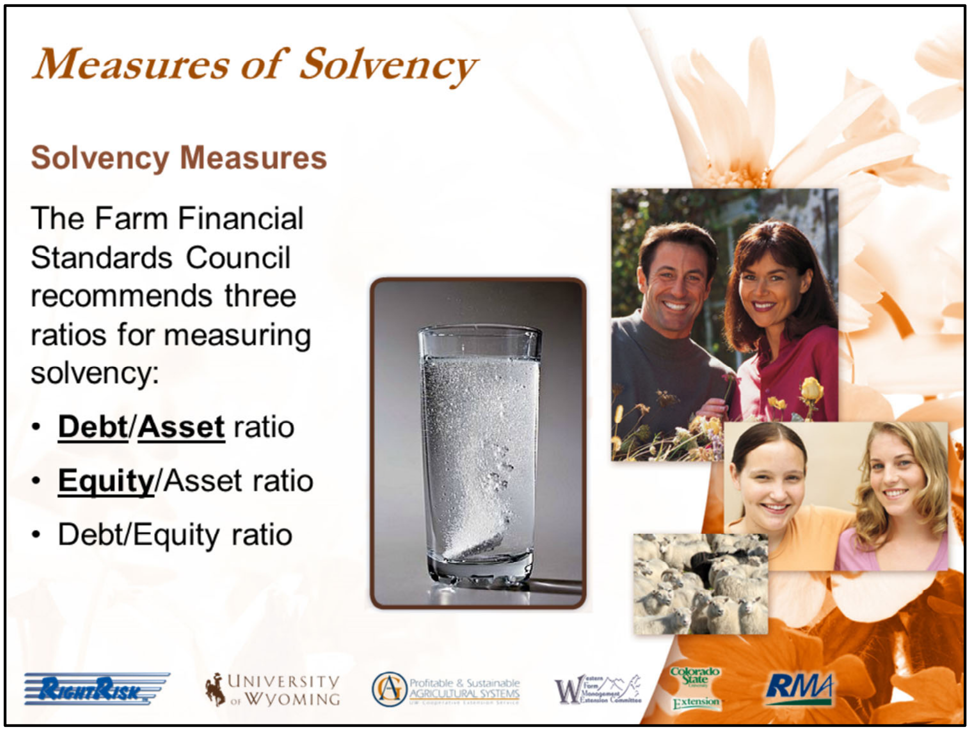


Audio:

Welcome to Getting on Track: Understanding Financial Performance. In this course you will learn how to analyze the health of your business using financial ratios.

Click the next arrow to start at the beginning of the course or click the Menu link to select a lesson from the Main Menu. We recommend that you view the lessons in order the first time through the course.


Lesson 4
Measures of Solvency
UNIVERSITY of WYOMING
Profitable & Sustainable AGRICULTURAL SYSTEMS
Colorado State University
Extension
RMA



Audio:

Solvency measures provide an indication of your long-term ability to repay all financial obligations and your ability to withstand adversity.

The Farm Financial Standards Council recommends three ratios for measuring solvency; the Debt to Asset ratio, the Equity to Asset ratio, and the Debt to Equity ratio.

In this lesson, you will learn how to calculate and evaluate the Debt to Asset and Equity to Asset ratios.

Measures of Solvency

Solvency Measures

The Farm Financial Standards Council recommends three ratios for measuring solvency:

- **Debt**/**Asset** ratio
- **Eq** Asset ratio

Debt is an obligation to repay something, usually money borrowed from an individual or business.

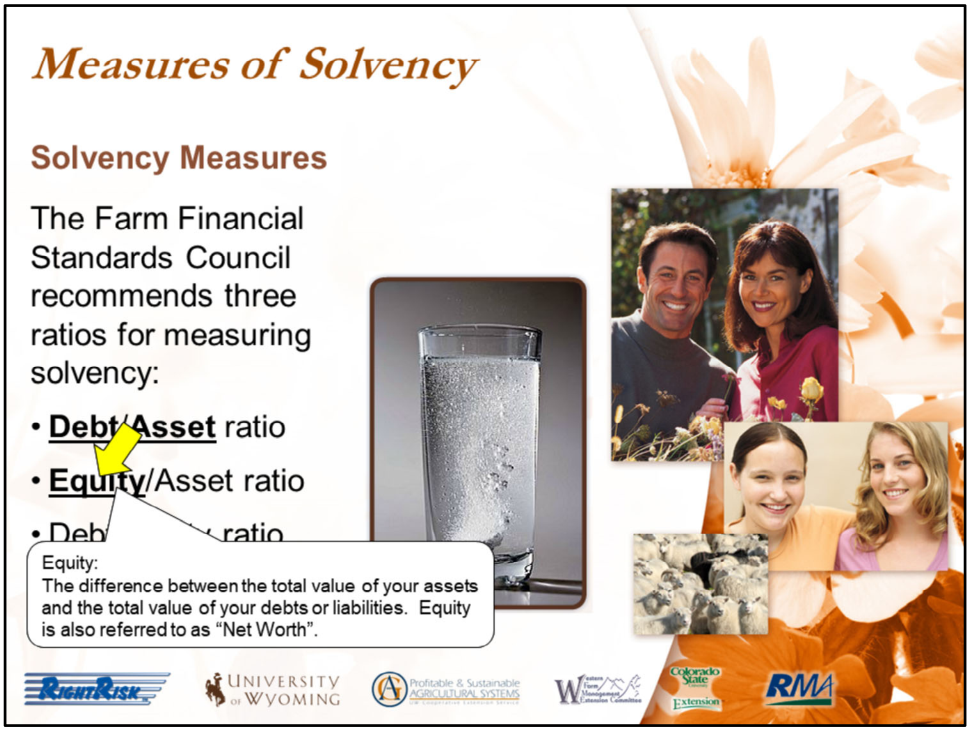
Measures of Solvency

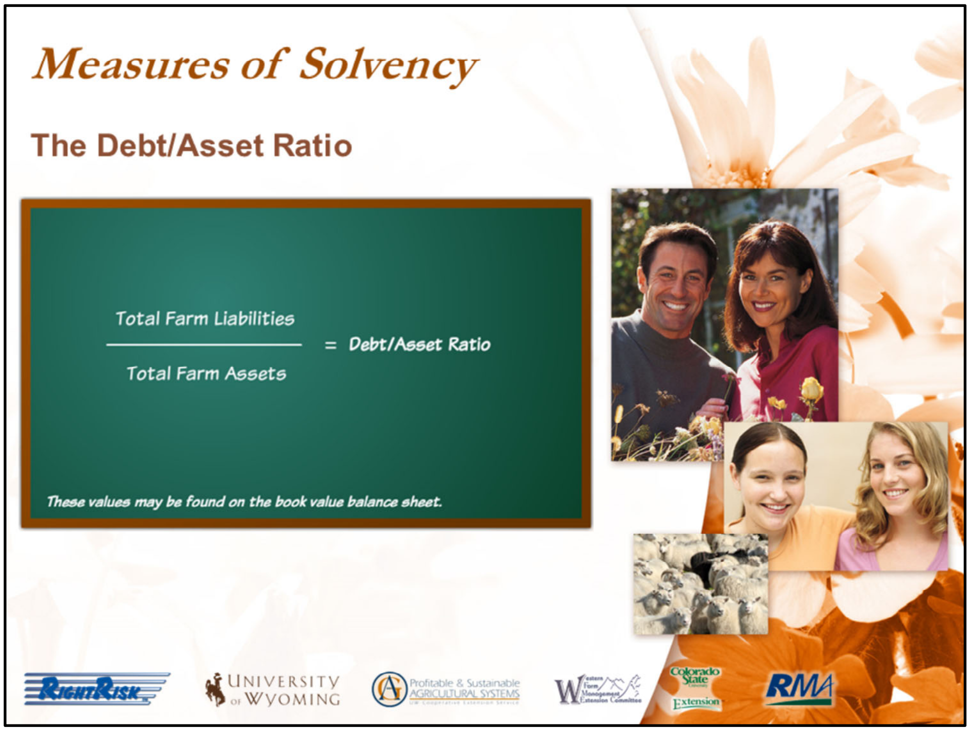
Solvency Measures

The Farm Financial Standards Council recommends three ratios for measuring solvency:

- **Debt**/**Asset** ratio
- **Equity**/A ratio
- Del

> Asset:
> Assets are tangible or intangible items of value that you own or that are owed to you.


Measures of Solvency
Solvency Measures
The Farm Financial Standards Council recommends three ratios for measuring solvency:
• Debt/Asset ratio
• Equity/Asset ratio
• Deb ratio
Equity:
The difference between the total value of your assets and the total value of your debts or liabilities. Equity is also referred to as "Net Worth".
University of Wyoming
Profitable & Sustainable Agricultural Systems
RMA

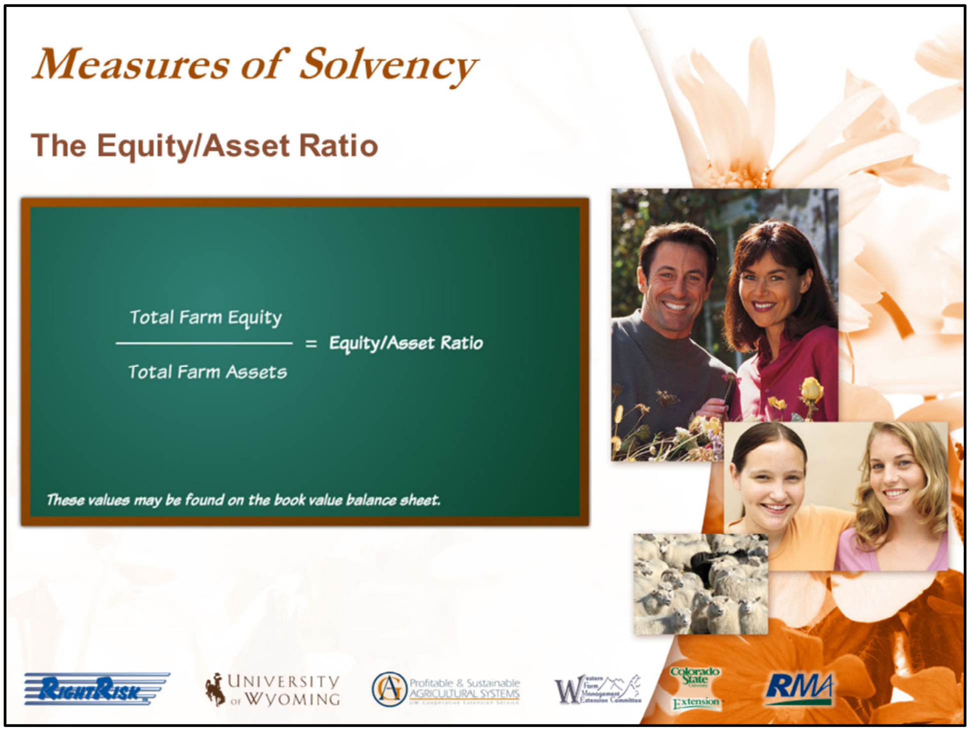


Audio:

The Debt to Asset ratio is calculated by dividing total farm liabilities by the total farm assets.

Both of these values can be found on the balance sheet.

The results of this calculation will help you measure your ability to pay long term obligation and to withstand financial adversity.

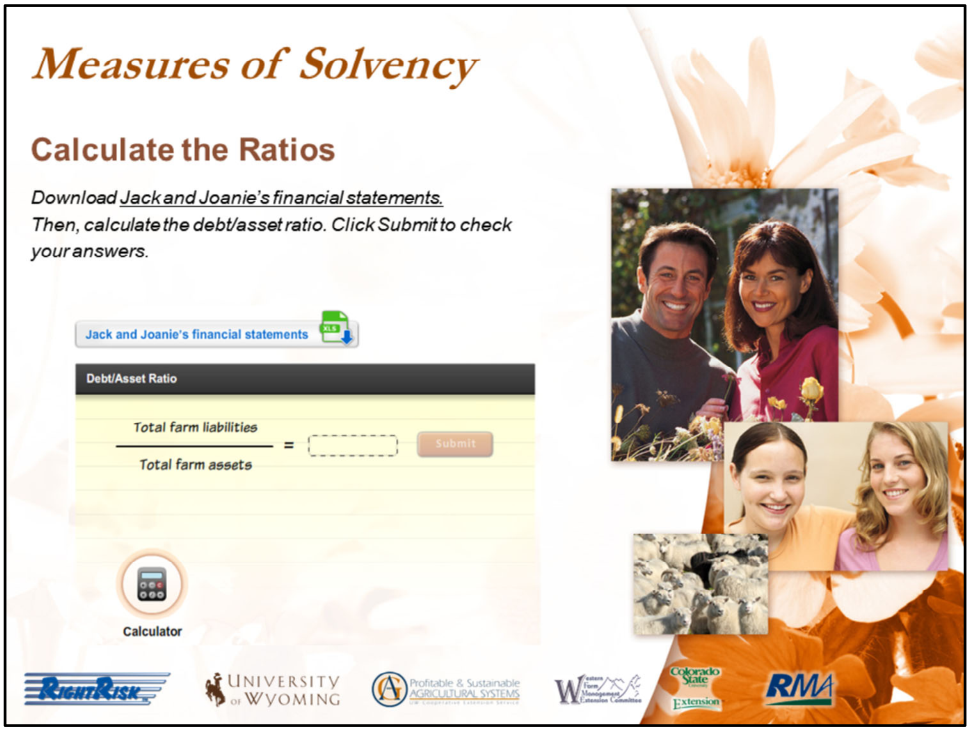


Audio:

The Equity/Asset ratio is calculated by dividing total farm equity by total farm assets.

Both of these values can be found on the balance sheet.

The Equity/Asset ratio measures the owner’s level of investment in the business.



Audio:

Now, try calculating the ratios. Click on the link to download Jack and Joanie's financial statements. Then, calculate Jack and Joanie's debt/asset ratio, for example for year 10 using book value balance sheet information. Click the calculator icon to access a calculator tool.

Click Submit to check your answer

Measures of Solvency

Calculate the Ratios

Download Jack and Joanie's financial statements.
Then, calculate the debt/asset ratio. Click Submit to check your answers.

Jack and Joanie's financial statements

Debt/Asset Ratio

$$\frac{\text{Total farm liabilities}}{\text{Total farm assets}} = .57$$

Submit

That's correct!. You have correctly calculated Jack and Joanie's debt/asset ratio.

Calculator

Measures of Solvency

Calculate the Ratios

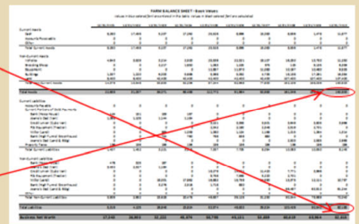
Calculating the Debt/Asset Ratio

X

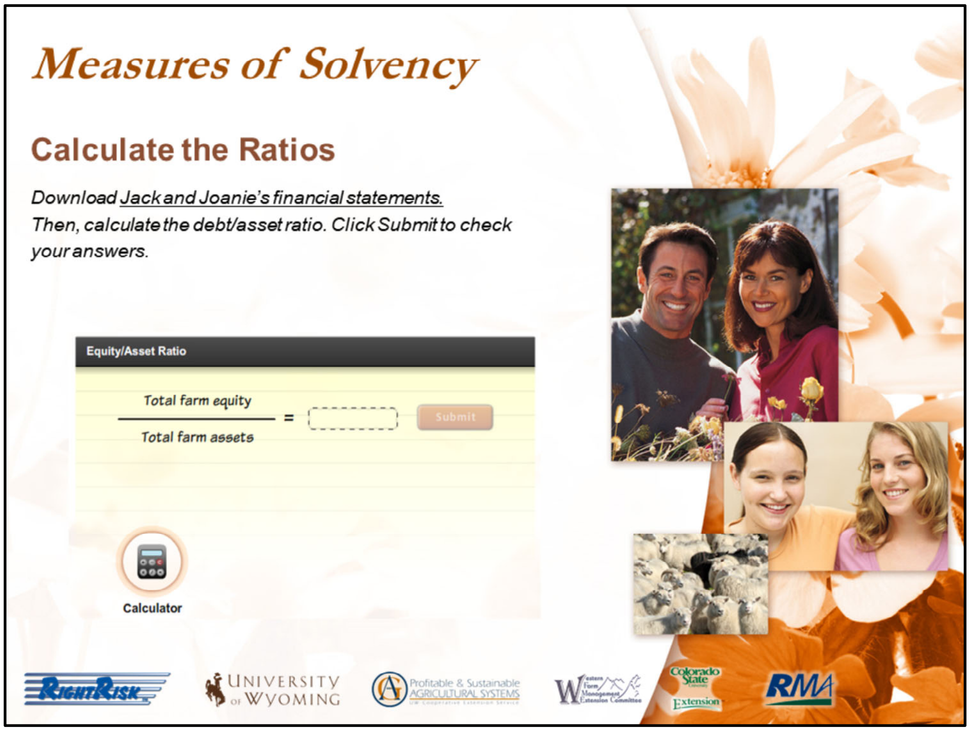
Step 1:
Locate the total farm liabilities value on Jack and Joanie's balance sheet.

Step 2:
Locate the total farm assets value on Jack and Joanie's balance sheet.

Step 3:
Divide the first value by the second value.



75, 927 ÷ 136,466 = 0.57



Audio:

Now, try calculating Jack and Joanie's equity to asset ratio for example year 10 using book value balance sheet information. Click the calculator icon to access a calculator tool.

Click Submit to check your answer.

Measures of Solvency

Calculate the Ratios

Download Jack and Joanie's financial statements.
Then, calculate the debt/asset ratio. Click Submit to check your answers.

Equity/Asset Ratio

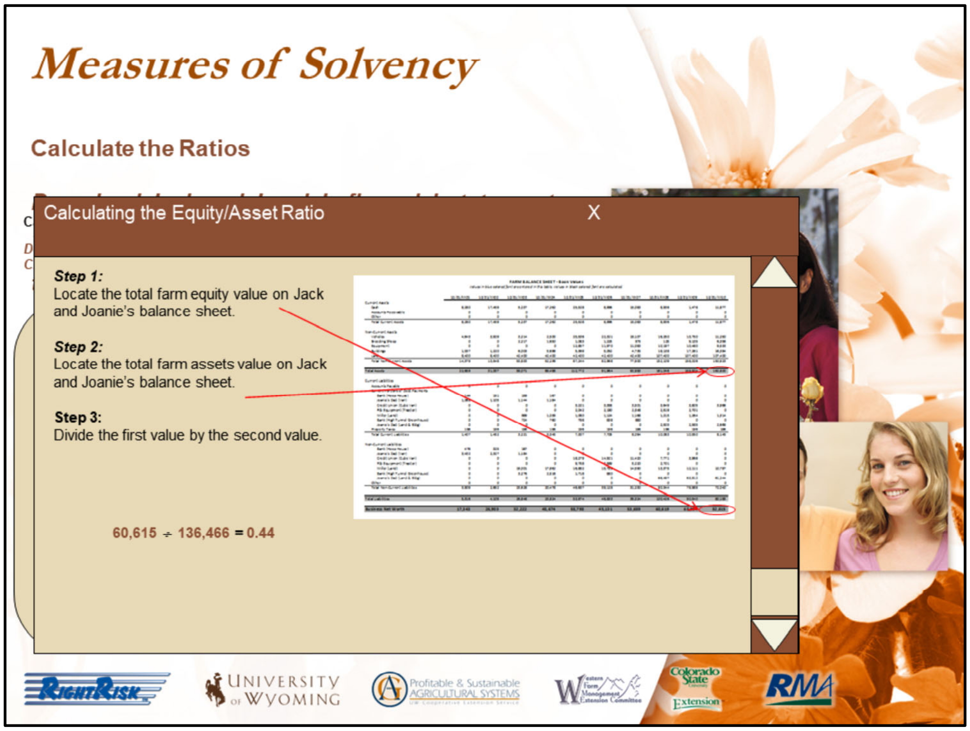
$$\frac{\text{Total farm equity}}{\text{Total farm assets}} = .44$$

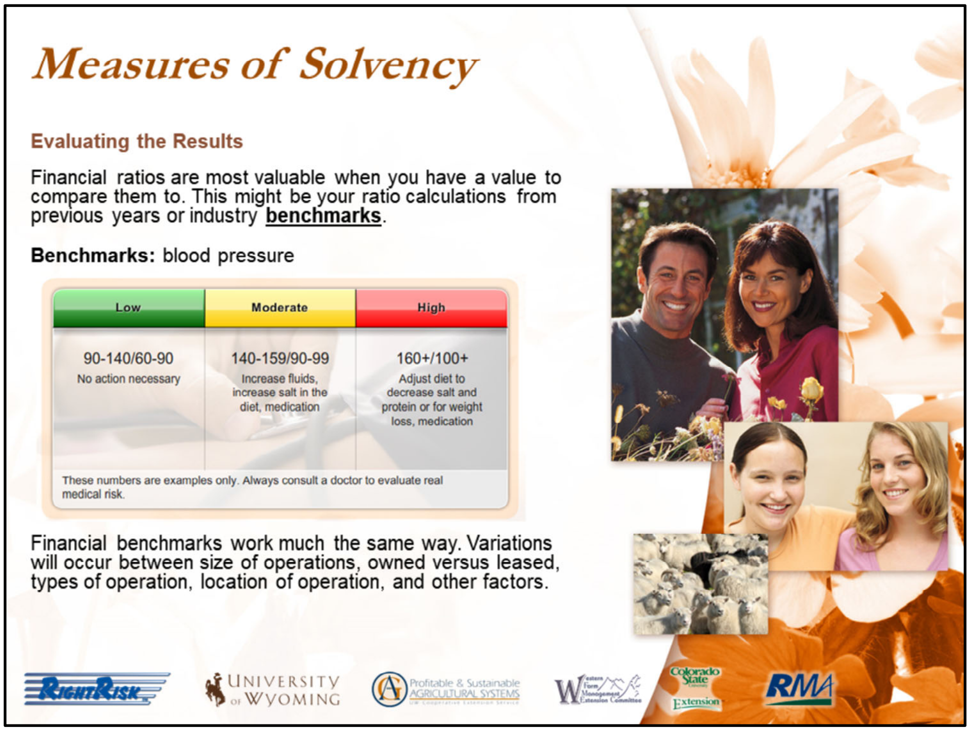
Submit

That's correct!. You have correctly calculated Jack and Joanie's equity/asset ratio.

Calculator

RightRisk University of Wyoming Profitable & Sustainable Agricultural Systems Western Farm Management Extension Committee Colorado State Extension RMA


Measures of Solvency
Calculate the Ratios
Calculating the Equity/Asset Ratio
X
Step 1:
Locate the total farm equity value on Jack and Joanie's balance sheet.
Step 2:
Locate the total farm assets value on Jack and Joanie's balance sheet.
Step 3:
Divide the first value by the second value.
60,615 ÷ 136,466 = 0.44
FARM BALANCE SHEET
UNIVERSITY of WYOMING
Profitable & Sustainable AGRICULTURAL SYSTEMS
Colorado State
Extension
RMA

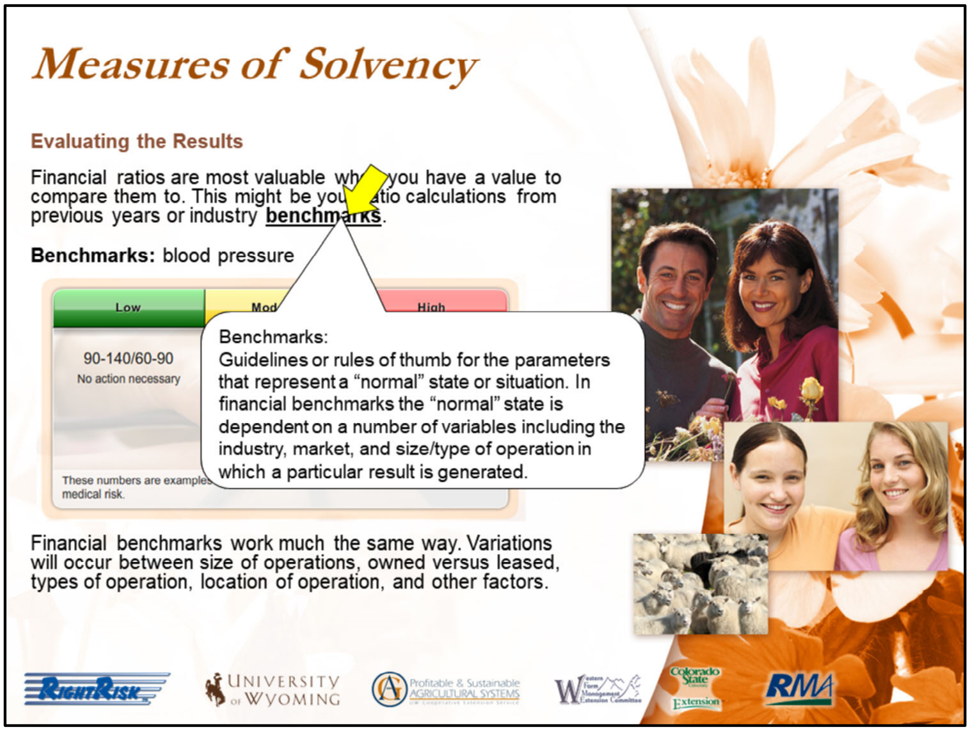


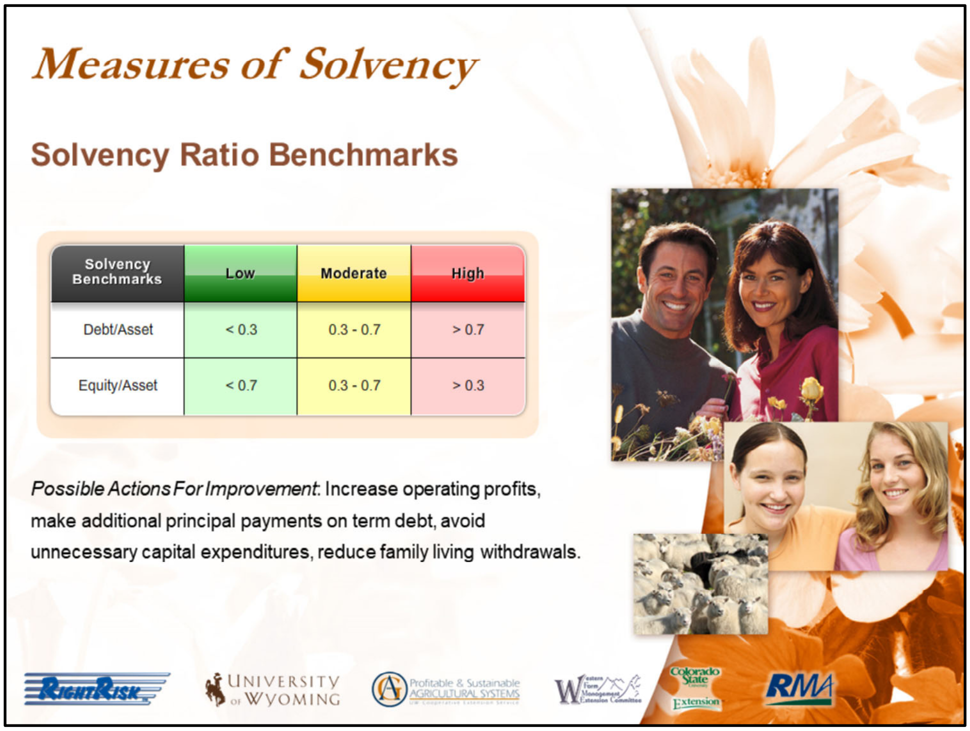
Audio:

Financial ratios are most valuable when you have something to compare them to. This might be ratio calculations from previous years or industry benchmarks.

Benchmarks are guidelines or general rules of thumb related to a specific industry. For instance, a normal blood pressure is between 90/60 and 140/90. However, blood pressure can vary with age, activity level, time of day and other variables. Thus, there is no single blood pressure that can be considered normal. The benchmark range simply allows a doctor to interpret the measurement and to decide if further action is required.

Financial benchmarks work much the same way.


Measures of Solvency
Evaluating the Results
Financial ratios are most valuable wh you have a value to compare them to. This might be you atio calculations from previous years or industry benchmarks.
Benchmarks: blood pressure
Low
High
90-140/60-90
No action necessary
These numbers are examples
medical risk.
Benchmarks:
Guidelines or rules of thumb for the parameters that represent a "normal" state or situation. In financial benchmarks the "normal" state is dependent on a number of variables including the industry, market, and size/type of operation in which a particular result is generated.
Financial benchmarks work much the same way. Variations will occur between size of operations, owned versus leased, types of operation, location of operation, and other factors.
University of Wyoming
Profitable & Sustainable Agricultural Systems
Colorado State
Extension
RMA



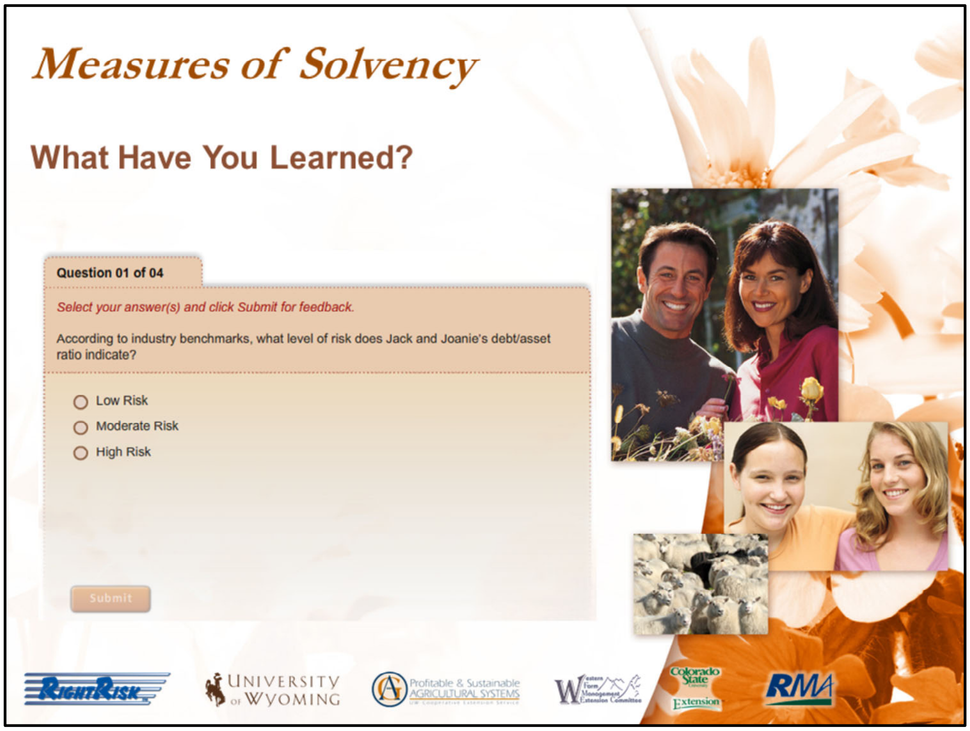
Audio:

Some benchmarks for solvency ratio values are shown on screen.

The benchmarks are meant to be only a guideline for comparison purposes.

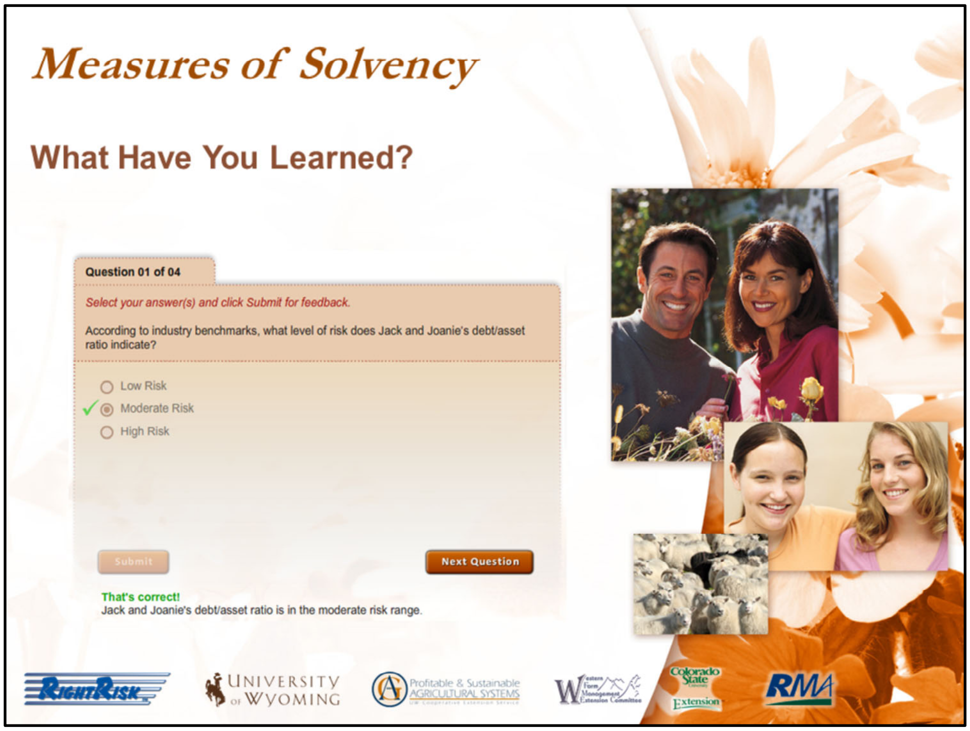
The correlated benchmarks are presented in terms of green, yellow, and red lights. A green light represents a financial strength with low risk. A yellow light corresponds to moderate risk, and a red light means weakness and high risk. A green light doesn't guarantee success, nor does a red light imply failure. A weakness in one area may be overcome by strengths in other areas.

Each farm operator should establish specific benchmarks for their specific farm situation.



Audio:

Check what you have learned about measures of solvency by answering the questions on screen. Click Submit to check your answers.


Measures of Solvency
What Have You Learned?
Question 01 of 04
Select your answer(s) and click Submit for feedback.
According to industry benchmarks, what level of risk does Jack and Joanie's debt/asset ratio indicate?
Low Risk
Moderate Risk
High Risk
Submit
Next Question
That's correct!
Jack and Joanie's debt/asset ratio is in the moderate risk range.
University of Wyoming
Profitable & Sustainable Agricultural Systems
RMA

Measures of Solvency

What Have You Learned?

Question 02 of 04

Select your answer(s) and click Submit for feedback.

According to industry benchmarks, what level of risk does Jack and Joanie's equity/asset ratio indicate?

- ○ Low Risk
- ○ Moderate Risk
- ○ High Risk

Submit

Measures of Solvency

What Have You Learned?

Question 02 of 04

Select your answer(s) and click Submit for feedback.

According to industry benchmarks, what level of risk does Jack and Joanie's equity/asset ratio indicate?

- ○ Low Risk
- ✓ ◉ Moderate Risk
- ○ High Risk

Submit

Next Question

That's correct!
Jack and Joanie's equity/asset ratio is in the moderate risk range.

Measures of Solvency

What Have You Learned?

Question 03 of 04

Select your answer(s) and click Submit for feedback.

What can Jack and Joanie do to improve their debt/asset ratio?

- ☐ Increase the value of assets (without taking on new debt)
- ☐ Increase debt
- ☐ Retain profits in the business
- ☐ Increase withdrawals from the business

Submit

RightRisk | University of Wyoming | Profitable & Sustainable Agricultural Systems | Western Farm Management Extension Committee | Colorado State Extension | RMA

Measures of Solvency

What Have You Learned?

Question 03 of 04

Select your answer(s) and click Submit for feedback.

What can Jack and Joanie do to improve their debt/asset ratio?

- [x] Increase the value of assets (without taking on new debt)
- [ ] Increase debt
- [x] Retain profits in the business
- [ ] Increase withdrawals from the business

Submit Next Question

That's correct!
Increasing the value of assets and retaining profits in the business will improve the debt/asset ratio.

Measures of Solvency

What Have You Learned?

Question 04 of 04

Select your answer(s) and click Submit for feedback.

What actions can you take to increase the value of assets or retain profits in the business?

- ☐ Generate more cash (revenues) in the business
- ☐ Make additional principal payments over time without reducing asset balances
- ☐ Purchase inputs on credit
- ☐ Sell unprofitable assets and reduce debt

Submit

RIGHTRISK UNIVERSITY OF WYOMING Profitable & Sustainable AGRICULTURAL SYSTEMS Western Farm Management Extension Committee Colorado State Extension RMA

Measures of Solvency

What Have You Learned?

Question 04 of 04

Select your answer(s) and click Submit for feedback.

What actions can you take to increase the value of assets or retained profits in the business?

- [x] Generate more cash (revenues) in the business
- [x] Make additional principal payments over time without reducing asset balances
- [ ] Purchase inputs on credit
- [x] Sell unprofitable assets and reduce debt

Submit

That's correct! Generating more cash, making additional principal payments and selling unprofitable assets will improve the value of assets or retained profits in the business.