

Assignment 3: FINANCIAL ANALYSIS

Due: Thursday, March 5

This assignment involves the preparation of the income statement and ending balance sheet for the Eric and Mary Jansson's crop and hog farm in western Minnesota, and the evaluation of their financial condition and performance.

You will need to hand in (and place in this order please):

1. Your cover memo to the Janssons explaining your evaluation of their financial position and performance
 2. Your calculated financial measures (page 6 of this assignment)
 3. The printout of your income statement
 4. The printout of your ending balance sheet
 5. The data for the comparable farms
-

I. Complete the Income Statement and Balance Sheet

Using the inventory and other information listed on pages 3-5 of this assignment, complete the income statement and the ENDING balance sheet. These statements are available as worksheets in the Excel© file (3811 A3 financial analysis.xls) which is available on the class web site (<http://www.apec.umn.edu/faculty/kolson/apec3811.html>).

You do not need to calculate a beginning balance sheet. I have included the information you need from that balance sheet on page 4.

Principal payments due within 12 months are to be included in the current liabilities portion of the net worth statement. Remember to adjust the loan balances listed under intermediate and long-term liabilities on the balance sheet.

II. Calculate Financial Measures and Ratios

Using your completed income statement and balance sheet (and some additional information on pages 3-5) calculate the financial measures listed on the form on page 6 of this assignment. Then place a check mark to indicate the relative rating of each measure.

III. Finding Comparable Farms

Find the financial condition and performance information for a set of farms comparable to this farm based on gross farm income.

- A. Go to the Center for Farm Financial Management’s Farm Financial Database at:
<http://www.finbin.umn.edu/>
- B. Click on “Whole Farm” in the left hand menu.
- C. Use the dropdown menus or click on the item to select the following:
 1. Report: “Financial Standards Measures”
 2. Location: State: Minnesota
Group: All
Region: West Central & Southwest
 3. Columns: Gross Farm Income (including average column)
 4. Characteristics: Years: “2007;”
Farm Type: “Crop & Hog;”
and “All” for all other characteristics
- D. Click on “Generate Report.”
- E. Either print the results or copy it into your word processor.
- F. Repeat steps C through E except change Farm Type to “All.”
- G. From other reports in FINBIN, the average ending farm net worth for comparably sized crop and hog farms and for all farms is reported in the table below.

	Cost basis	Market value based
Crop and hog farms	737,754	869,603
All farms	806,801	973,335

IV. Write a cover memo.

Write a memo to the Janssons from you as the Jansson’s banker or financial advisor using the normal format for a memo with three main parts in the narrative.

1. [date]
2. To: Eric and Mary Jansson
3. From: [you, your bank or advising company]
4. Start the narrative with a very short paragraph (i.e., 2-3 sentences) summarizing your evaluation of their financial position and performance.
5. Support your evaluation by writing 5 short paragraphs (i.e., 2-3 sentences each) evaluating their liquidity, solvency, profitability, repayment capacity, and financial efficiency. State the measures and ratios and evaluate them in terms of the guidelines for vulnerable and strong as well as the financial measures you collected for the comparable farms you found in part III of this assignment.
6. Close your memo with a thank you and an offer to answer any questions they may have and to help them develop strategies that fit their situation.

The Jansson's Farm Inventory

The Janssons prepare an annual inventory of their farm and gather other information for their year end analysis and tax preparation. This is their most recent list using the order in the course notes.

1. Land

January 1: cost basis: \$398,892 market: \$652,369

December 31: cost basis: \$406,570 market: \$665,570

They bought \$13,201 worth of land (i.e., capital purchases) during the year, but they didn't sell any land.

2. Buildings & improvements

January 1: cost basis: \$199,089 market: \$275,644

December 31: cost basis: \$199,423 market: \$281,742

They bought \$9,908 worth of buildings and improvements (i.e., capital purchases) during the year, but they didn't sell any buildings and improvements.

3. Livestock

Market Hogs on Feed:

January 1: \$118,527

December 31: \$158,012

4. Machinery, equipment, implements and tools

January 1: cost basis: \$199,200 market value: \$265,183

December 31: cost basis: \$194,621 market value: \$282,992

They bought \$37,167 worth of machinery and equipment (i.e., capital purchases) and sold \$2,127 worth of machinery and equipment (i.e., capital sales) during the year.

5. Operating inputs on hand (Miscellaneous Supplies)

January 1: \$51,846

December 31: \$59,154

6. Harvested crops & feed in storage:

January 1: \$214,117

December 31: \$229,274

7. Financial assets

a. Cash on hand and in liquid accounts

Beginning Cash Balance \$50,309

Ending Cash Balance \$51,936

b. Accounts receivable

January 1: \$7,932

December 31: \$12,037

c. Other Intermediate Assets (for the farm):

January 1: cost basis: \$8,109 market value: \$12,669

December 31: cost basis: \$9,816 market value: \$27,215

They bought \$13,350 worth of other intermediate assets (i.e., capital purchases) during the year, but they didn't sell any other intermediate assets.

9. Liability records:

a. Loan Information:

During this past year, they made principal payments of \$69,962 and interest payments of \$22,890 on their term debt. They started the year with an operating loan of \$87,747. They borrowed \$80,519 in new operating loans and paid off \$102,747 in old and current operating loans. They paid \$4,388 in interest on operating loans this past year. Interest on the operating loan was paid through the end of the year.

Their loan balances at the end of the year were:

Operating loans (or notes):	\$ 65,519
Intermediate term loans:	\$110,373
Long term loans:	\$176,562

b. Current portions of the principal and interest payments

Next year they will have \$12,350 in principal due on their intermediate term loan and \$22,000 due on their long-term loan.

c. Accounts payable

January 1: \$27,485

December 31: \$21,267

d. Unpaid, accrued interest – They have no accrued interest.

e. Delinquent principal and interest payments – They are not delinquent on any payments.

f. Charge and credit card account information – They pay all these accounts off before the end of the year.

g. From their beginning balance sheet, the total value of their farm business assets, liabilities, and net worth are reported in the table below.

	Cost basis	Market value based
Total farm business assets	1,248,021	1,648,596
Total farm liabilities	436,517	548,678
Farm net worth	811,504	1,099,918

10. Other information

From their records, the report their cash receipts for the year were:

Corn sales	\$163,063
Soybeans sales	\$118,143
Market hog sales	\$264,149
Gov't Payments	\$22,111
Contract hog income	\$27,689
Other Farm Income	\$49,334

Their farm expenses for the year were:

Seed	\$38,164
Fertilizer	\$43,794
Crop Chemicals	\$42,007
Crop insurance	\$6,556
Drying fuel	\$2,123
Crop miscellaneous	\$894
Purchased feed	\$45,133
Feeder livestock bought	\$12,303
Veterinary & breeding	\$9,378
Livestock supplies	\$14,452
Interest	\$27,278
Fuel and oil	\$9,503
Repairs	\$36,549
Custom hire	\$12,934
Hired Labor	\$16,953
Land Rent	\$59,690
Real estate taxes	\$16,521
Farm insurance	\$3,508
Utilities	\$6,622
Trucking & marketing	\$228
Other Farm Expenses	\$12,902

11. Family records

a. Non-farm income & expenditures

Their non-farm income was \$2,730.

b. Personal expenses

Proprietor withdrawals (i.e., personal living expenses) were \$68,016 for the year.

c. For this assignment, we will not estimate their total personal assets, liabilities, and net worth. They keep these assets and liabilities separate and not part of the business.

e. They are in the 28% tax bracket.

f. If they didn't farm, they think they could make \$85,000 if both worked in nonfarm jobs.

Evaluation Form for Farm Financial Position and Performance*

Category and Measure	Actual Results	Relative Rating of Actual Measure**				
		Vulnerable				Strong
Liquidity						
1. Current ratio	.		1.0		2.0	
2. Working capital	\$					
Solvency (market)						
Net Worth (Equity)	\$					
3. Farm debt-to-asset ratio	%		60%		30%	
4. Farm equity-to-asset ratio	%		40%		70%	
5. Farm debt-to-equity ratio	%		150%		43%	
Profitability (cost)						
6. Net farm income	\$					
7. Rate of return on farm assets	%		1%		5%	
8. Rate of return on farm equity	%		5%		10%	
9. Operating profit margin	%		20%		35%	
Repayment Capacity						
10. Term-debt coverage ratio	%		110%		135%	
11. Capital-replacement margin	\$					
Financial efficiency						
12. Asset-turnover rate (cost)	%		20%		40%	
13. Operating-expense ratio	%		80%		60%	
14. Depreciation-expense ratio	%		20%		10%	
15. Interest-expense ratio	%		20%		10%	
16. Net farm income ratio	%		10%		20%	
<p>*These measures are taken from and defined by the Farm Financial Standards Council (1997). **While the borders between vulnerable and strong are not well defined, these guidelines serve to help describe the farm relative to widely accepted expectations for financial condition and performance.</p>						