Key Financial Indicators

Agribusiness Finance
LESE 306 Fall 2009

Key Financial Indicators

- ✓ **Measures of asset liquidity**
  - See equations 1 and 2 on page 12 of booklet
- ✓ **Measures of solvency**
  - See equations 3, 4, 5 and 6 on page 13 of booklet
- ✓ **Measures of after-tax profitability**
  - See equations 7, 8 and 9 on page 13 of booklet
- ✓ **Measures of economic efficiency**
  - See equations 10, 11, 12, 13 and 14 on page 14 of booklet
- ✓ **Measures of debt repayment capacity**
  - See equations 15 – 17 on page 15 of booklet

Measures of Asset Liquidity

1. **Current ratio**:
- Current assets divided by current liabilities.
- Demonstrates ability to cover scheduled current liabilities for the coming year out current assets and still have “cash” left over.
- Should ***exceed 1.0*** to be technically liquid.
- Some firms fail despite exceeding this hurdle.

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2. **Working capital**:
- Current assets minus current liabilities.
- Expresses liquidity in dollars rather than ratio.
- Should be positive.
- ***Cash is King!***

Balance Sheet Structure

Consolidated Balance Sheet December 31, 2009

Current assets:			**Current liabilities:**	
Cash		$7,314	Accounts payable	$0
Savings and time deposits		$35,000	Short term notes payable	$0
Marketable securities	$0	$0	Current payment on term loans/leases	$29,000
Accounts receivable		$0	Accrued interest	$50,000
Short term notes receivable		$0	Accrued taxes	$0
Other current assets		$0	Accrued rents and leases	$0
Total current assets		$42,314	Total current liabilities	$79,000
Long term assets:			**Long term liabilities:**	
Long term notes receivable		$0	Mortgages less current payment	$250,000
Machinery and motor vehicles	$200,000	$295,000	Land contracts less current payment	$0
Buildings	$150,000	$165,000	Contingent tax on long term assets	$0
Land	$170,500	$210,000	Other	$0
Other		$0		
Total long term assets		$670,000	Total long term liabilities	$250,000
			Net worth	$383,314
Total assets		$712,314	Total liabilities and net worth	$712,314

Current ratio = $42,314 / $79,000 = .5356 = illiquid
Working capital = $42,314 - $79,000 = -36,686 = illiquid

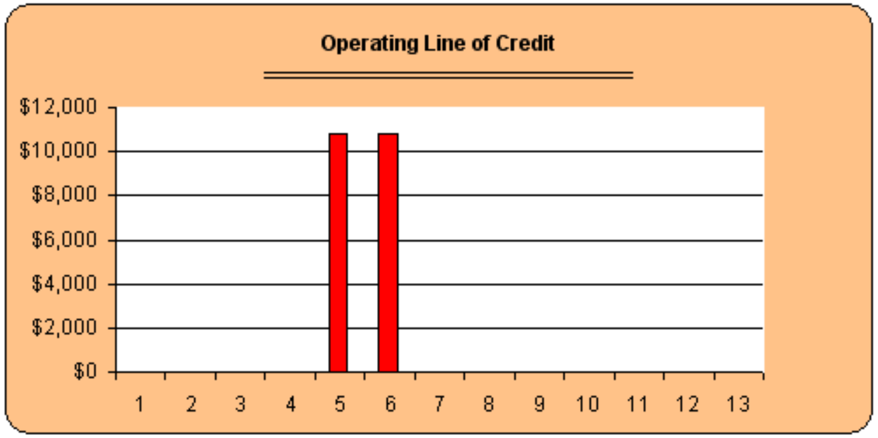
Measures of Credit Liquidity

1. **<u>Unused credit reserves</u>**:

- LOC extended by lender less current loans on LOC. The unused portion of your credit limit on your personal credit card is an example of credit liquidity.
- Demonstrates ability to cover scheduled current liabilities for the coming year out existing available credit.
- Should ***positive*** to be technically liquid.
- We will cover the implicit cost of credit liquidity later in the course.

Cash Flow Statement -4

$41,814	$7,314	$10,655	Cash position
			New borrowing:
$0	$0	$0	Term loans
$0	$0	$10,845	Operating loans
$0	$0	$10,845	Total new borrowing
			Other uses of cash:
			Operating loan payments:
$0	$0	$3,341	Interest payments
$0	$0	$10,845	Principal payments
$0	$0	$0	Additions to saving
$41,814	$7,314	$7,314	Ending cash
			Total debt outstanding
$0	$0	$0	Operating loan balance
$75,500	$61,000	$61,000	Long term loan balance
			Accrued interest
$0	$0	$3,341	Operating loan
$65,000	$40,000	$40,000	Long term loans
$35,000	$35,000	$35,000	Savings and time deposits



If the lender is willing to extend a maximum LOC of $100,000, the unused line of credit or credit liquidity is $89,155 in May and June ($100,000 - $10,845).

Measures of Cash Flow Liquidity

1. **Monthly cash position**:

- Monthly cash position (surplus of cash available less cash required) on the firm’s monthly cash flow statement.
- Demonstrates ability to cover scheduled current liabilities for a particular month out expected surplus cash position.
- Should ***positive*** to be technically liquid.
- Knowledge of the firm’s cash flow liquidity requires that the firm maintain a monthly cash flow statement.

Cash Flow Statement - 1

2009 Consolidated Monthly Cash Flow Statement

	January	February	March	April	May	June	July
Cash available:							
Beginning cash	$10,000	$15,000	$20,000	$35,000	$9,655	$1,000	$4,886
Cash receipts from product sales	$75,000	$75,000	$85,000	$75,000	$90,000	$75,000	$85,000
Other cash available	$0	$0	$0	$0	$0	$0	$0
Total cash available	$85,000	$90,000	$105,000	$110,000	$99,655	$76,000	$89,886
Cash required:							
Cash operating expenses	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000	$70,000
Income tax payments	$0	$0	$0	$30,345	$0	$0	$0
Term loan payments:							
Interest payments	$0	$0	$0	$0	$25,000	$0	$0
Principal payments	$0	$0	$0	$0	$14,500	$0	$0
Capital expenditures:							
Machinery and motor vehicles	$0	$0	$0	$0	$0	$0	$0
Buildings and improvements	$0	$0	$0	$0	$0	$0	$0
Land	$0	$0	$0	$0	$0	$0	$0
Other cash required	$0	$0	$0	$0	$0	$0	$0
Total cash required	$70,000	$70,000	$70,000	$100,345	$109,500	$70,000	$70,000
Cash available minus cash required	$15,000	$20,000	$35,000	$9,655	-$9,845	$6,000	$19,886
Savings withdrawal	$0	$0	$0	$0	$0	$0	$0
Cash position	$15,000	$20,000	$35,000	$9,655	-$9,845	$6,000	$19,886

Measures of Solvency

1. **Debt ratio**:

- Total debt divided by total assets.
- Demonstrates ability to liquidate the firm, pay off all liabilities from the net proceeds from the sale of all assets, and still have "cash" left over.
- Should ***not exceed 0.50*** to minimize financial risk exposure.
- Some firms fail however at lower levels.

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2. **Leverage ratio**:

- Total debt divided by equity or net worth.
- Often a credit standard in loan approval decisions.
- Should ***not exceed 1.0*** to minimize financial risk exposure.
- Effects of rising interest rates.

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The debt ratio = $250,000 / $712,314 = .351 which is less than 0.50
The leverage ratio = $250,000 / $383,314 = .652 which is less than 1.0

Measures of Profitability

1. **Rate of return on assets**:

- Net income plus interest divided by total assets.
- Demonstrates the after-tax return to the total capital invested in the firm.
- Should be ***positive***; the higher the better.

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These measures of profitability can be expressed on either a pre-tax or after-tax basis.

Income Statement Structure

2009 Consolidated Income Statement

Cash receipts from product sales	$950,000
Cash operating expenses	$840,000
Interest on business loans	$50,000
Total cash expenses	$890,000
Net cash income from operations	$60,000
Gain (loss) on sale of intermediate and long term assets	$0
Depreciation allowances	$35,000
Income before taxes	$25,000
Provision for taxes	$30,345
Net income	-$5,345

The ROA = (-$5,345 + $50,000) / $712,314 = 0.0627 or 6.27%
The ROE = -$5,345 / $383,314 = -0.0139 or -1.29%

Measure of Debt Repayment Capacity

1. **Term Debt and Capital Lease Coverage Ratio**:

- Cash available from operations to cover scheduled payments (net income plus depreciation and interest payments less withdrawals) divided by scheduled principal and interest payments on term loans and capital leases measures the after tax cash coverage ratio.
- After provision for taxes and withdrawals.
- Should be ***greater than 1.0***.
- Non-farm income often factored in by lenders.

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2. **Debt Burden Ratio**:

- Total debt outstanding divided by net income.
- Number of years required to retire total debt if net income remains constant and used entirely for this purpose
- Should be ***low***; the lower the better.

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For a discussion of net income and net cash income approaches to measuring these ratios, see page 15 in the course booklet.

Know these Concepts

- ✓ These are generally accepted financial indicators of a firm’s financial position and strength.
- ✓ We will refer to these indicators throughout this course.