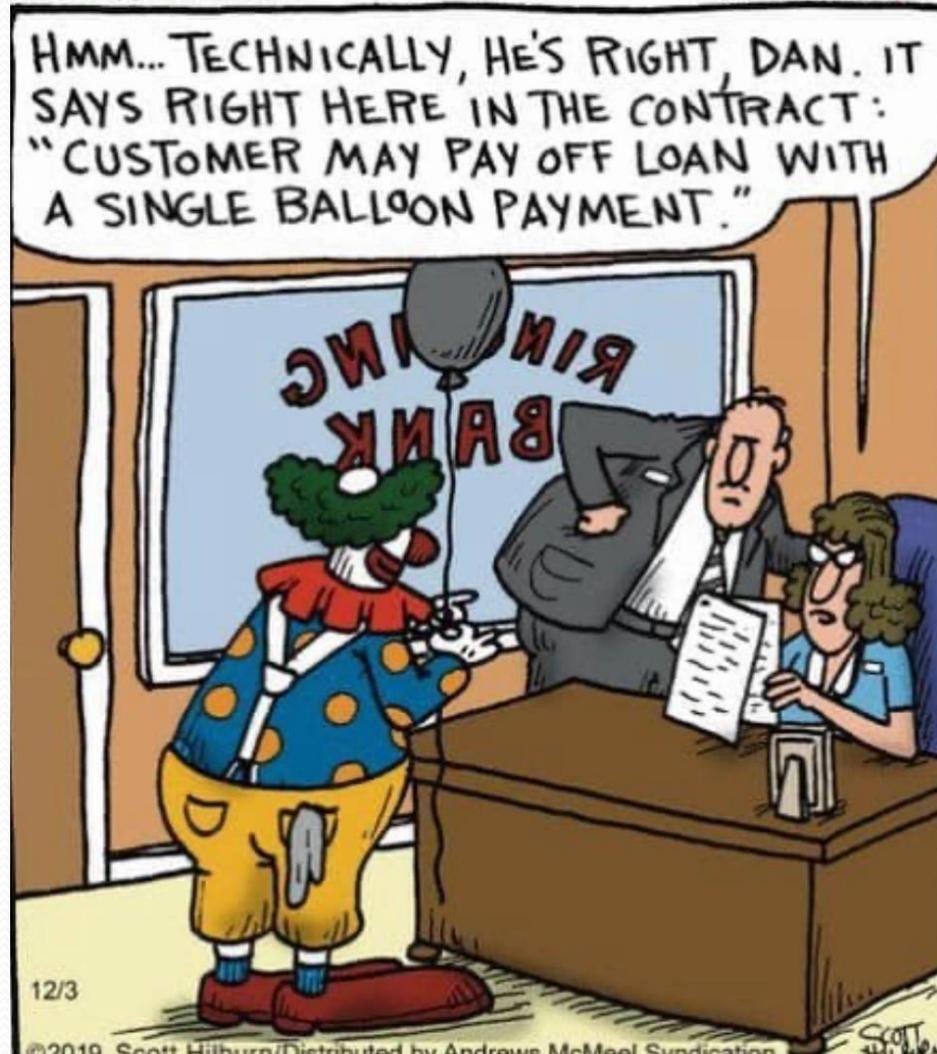


Welcome

The Argyle Sweater

By Scott Hilburn



Financial Statements Analysis

NACM Credit Conference

Presented by: Curtis Litchfield, CCE

September 12, 2024

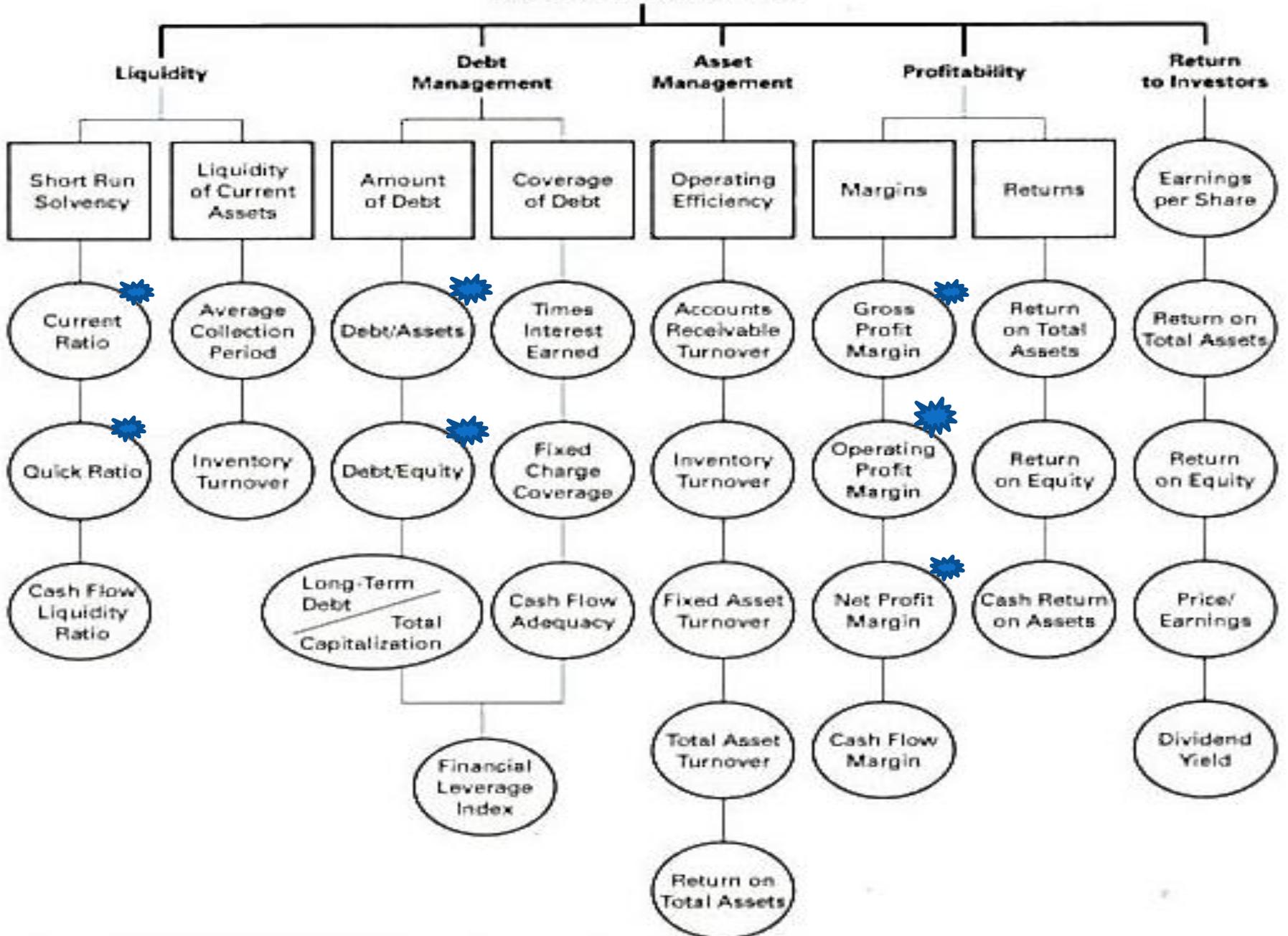
Financial Statement Analysis

Tools and Techniques

- Common-Size Financial Statements
- Key Financial Ratios
- Trend Analysis
- Structural Analysis
- Industry Comparisons
- Common Sense and Judgment

Summary of Financial Statement Analysis

How to Use Financial Ratios



Financial Statement Analysis

Two types of Balance Sheet and Income Statement Analysis

- Comparative (Horizontal)
- Comparative Common Size (Vertical)
- Why use these comparative types
 - Facilitate internal or structural analysis
 - Evaluate trends
 - Make industry comparisons

Financial Statement Analysis

Common Sizing

- Express each account on the Balance Sheet as a percentage of total assets
- Express each account on the Income Statement as a percentage of net sales

Financial Statement Analysis

Comparative (Horizontal)

- Requires two consecutive periods of information
- Objective is to find and identify changes that have occurred over the accounting period
- This is done in absolute and relative change values
- Relative Change is done by taking change and divided it by the prior period amount to determine the percentage change

Financial Statement Analysis

Comparative Common Size (Vertical)

- Requires only one time period
- Common Size means that every numerical item of the Balance Sheet and Income Statement is converted to represent a fraction part of Total Assets or Total Revenue/Sales
- Shows the relative magnitude and the relative importance of various accounts to the total
- You may do further analysis where you look at the fraction percentage within a subset like Current Assets and Current Liabilities

Financial Statement Analysis

Key Link between Income Statement and Balance Sheet

- Beginning Retained Earnings [plus/minus] Net Income (loss) [minus] Dividends [equals] Ending Retained Earnings

Beginning Retained Earnings	104,043,978
Net Income	10,274,490
Ending Retained Earnings	114,318,468
Retained Earnings Show	111,408,375
Difference	2,910,093

Why?

Financial Statement Analysis

	Capital Stock		Patrons' Equity Credits	General Reserve	Accumulated Other	Total
	Common	Preferred			Comprehensive Loss	
Balance, September 1, 2014	\$ 26,420	\$ 500	\$ 2,227,730	\$ 92,911,578	\$ (9,367,576)	\$ 85,798,652
Net savings	-	-	-	12,709,003	-	12,709,003
Unrealized gain in value of securities	-	-	-	-	11,583	11,583
Unrecognized gains and losses related to the defined benefit pension plan	-	-	-	-	(2,528,844)	(2,528,844)
Stock issued	445	-	-	-	-	445
Patronage distribution	-	-	-	(3,000,000)	-	(3,000,000)
Adjustment to prior year patronage distribution	-	-	-	401,491	-	401,491
Retirements and transfers	(335)	(500)	(1,131,602)	1,021,906	-	(110,531)
Balance, August 31, 2015	26,530	-	1,096,128	104,043,978	(11,884,837)	93,281,799
Net savings	-	-	-	10,274,490	-	10,274,490
Unrealized gain in value of securities	-	-	-	-	45,358	45,358
Unrecognized gains and losses related to the defined benefit pension plan	-	-	-	-	(1,068,553)	(1,068,553)
Stock issued	600	-	-	-	-	600
Patronage distribution	-	-	-	(2,500,000)	-	(2,500,000)
Adjustment to prior year patronage distribution	-	-	-	(395,272)	-	(395,272)
Retirements and transfers	(50)	-	(1,096,128)	(14,821)	-	(1,110,999)
Balance, August 31, 2016	<u>\$ 27,080</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 111,408,375</u>	<u>\$ (12,908,032)</u>	<u>\$ 98,527,423</u>

Financial Statement Analysis

Five categories of ratios

- Liquidity ratios
- Leverage ratios
- Profitability ratios
- Activity ratios
- Market ratios

Financial Statement Analysis

Ratios are valuable analytical tools and serve as screening devices, but they

- Do not provide answers in and of themselves
- Are not predictive
- Should be used with other elements of financial analysis

Liquidity Ratios

- Measure of a company's ability to pay off debts as they come due
- Measure a firm's ability to meet cash needs as they arise



Liquidity Ratios

Liquidity ratios include:

- Current ratio
- Quick or acid-test ratio
- Cash flow liquidity ratio
- Average collection period
- Days inventory held
- Days payable outstanding

Liquidity Ratios

Working Capital

- Measures the absolute dollar amount that Current Assets exceed Current Liabilities

Current Assets - Current Liabilities

Liquidity Ratios

Current Ratio

- Measures the ability of a firm to meet debt requirements as they come due
- Least stringent liquidity ratio

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Liquidity Ratios

Quick or Acid-Test Ratio

- Measures ability to meet short-term cash needs more rigorously by eliminating inventory

$$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

Liquidity Ratios

Company A					Company B				
	Current Yr	Prior Yr	Variance	Variance Percentage		Current Yr	Prior Yr	Variance	Variance Percentage
Cash and Cash Equivalents	15,170,717	11,800,916	3,369,801	28.56%	Cash and Cash Equivalents	5,170,717	11,800,916	(6,630,199)	-56.18%
Notes Receivables	8,054,362	7,418,978	635,384	8.56%	Notes Receivables	8,054,362	7,418,978	635,384	8.56%
Accounts Receivables, Net of allowance for doubtful Accounts	7,848,005	11,198,777	(3,350,772)	-29.92%	Accounts Receivables, Net of allowance for doubtful Accounts	20,348,005	11,198,777	9,149,228	81.70%
Inventory	23,573,283	26,298,719	(2,725,436)	-10.36%	Inventory	29,133,283	26,298,719	2,834,564	10.78%
Prepaid Expenses	203,106	303,075	(99,969)	-32.98%	Prepaid Expenses	203,106	303,075	(99,969)	-32.98%
Total Current Assets	54,849,473	57,020,465	(2,170,992)	-3.81%	Total Current Assets	62,909,473	57,020,465	5,889,008	10.33%
Cash Overdraft	1,251,955	3,133,221	(1,881,266)	-60.04%	Cash Overdraft	1,251,955	3,133,221	(1,881,266)	-60.04%
Current Maturities of Long Term Debt	2,500,000	1,852,458	647,542	34.96%	Current Maturities of Long Term Debt	1,980,000	1,852,458	127,542	6.89%
Accounts Payable	13,254,659	10,652,112	2,602,547	24.43%	Accounts Payable	16,834,659	10,652,112	6,182,547	58.04%
Customer Prepaid Balances	5,344,494	3,413,379	1,931,115	56.57%	Customer Prepaid Balances	9,824,494	3,413,379	6,411,115	187.82%
Accrued Wages and Taxes	2,298,771	2,425,392	(126,621)	-5.22%	Accrued Wages and Taxes	2,298,771	2,425,392	(126,621)	-5.22%
Income Taxes Payable	133,542	293,986	(160,444)	-54.58%	Income Taxes Payable	133,542	293,986	(160,444)	-54.58%
Other Current Liabilities	2,033,455	2,012,076	21,379	1.06%	Other Current Liabilities	2,033,455	2,012,076	21,379	1.06%
Total Current Liabilities	25,018,026	28,511,757	(3,493,731)	-12.25%	Total Current Liabilities	33,078,026	28,511,757	4,566,269	16.02%
Working Capital	29,831,447	28,508,708	1,322,739	4.64%	Working Capital	29,831,447	28,508,708	1,322,739	4.64%
Current Ratio	2.19	2.00			Current Ratio	1.90	2.00		
Quick Ratio	1.25	1.08			Quick Ratio	1.02	1.08		
Sales	293,397,624	356,479,764	(63,082,140)	-17.70%	Sales	264,057,862	320,831,788	(56,773,926)	-17.70%

Cash Conversion Cycle

- Measures the operating cycle in days of a business that consists of:
 - Purchasing or Manufacturing Inventory
 - Some purchases on credit, thus the creation of accounts payable
 - Selling inventory with some sales on credit, thus the creation of accounts receivable, and
 - Collecting the Cash.

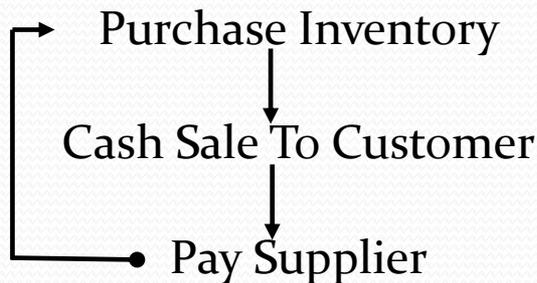
Cash Conversion Cycle

- The cash conversion cycle should be compared to the cash flow from operating activities to understand
 - Why cash flow generation has improved or deteriorated by analyzing the key operating accounts on the balance sheet
 - Inventory
 - Accounts Receivable
 - Accounts Payable

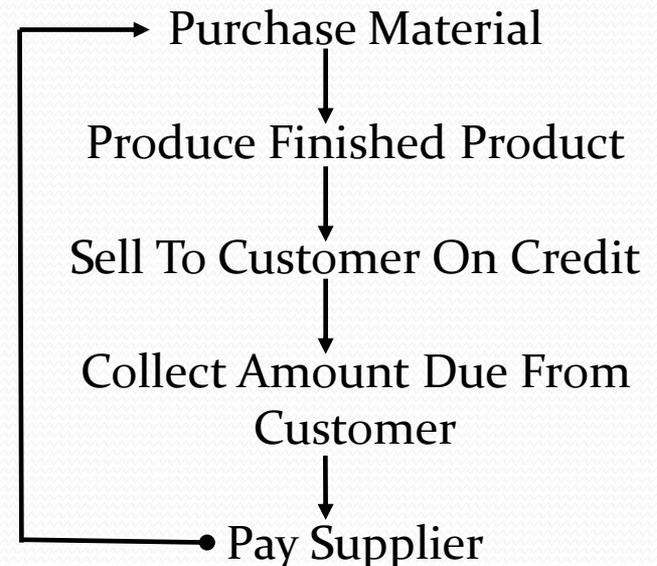
Cash Conversion Cycle

The time period between the acquisition of goods and the final cash realization from sales

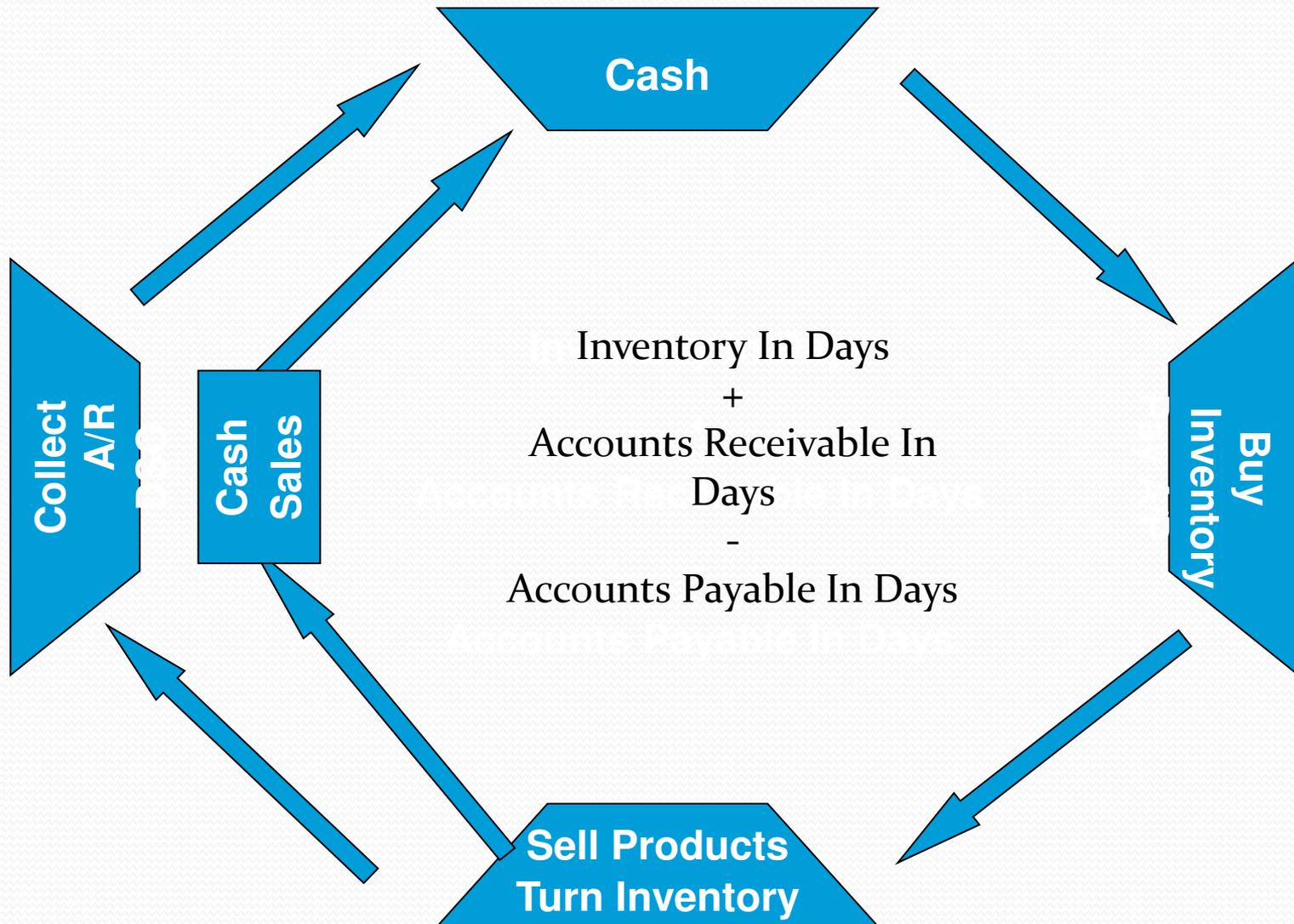
Customer A



Customer B



Cash Conversion Cycle



Cash Conversion Cycle

		Current Yr	Prior Yr
<u>Receivables</u>	=	15.1	14.0
Sales / 360			
<u>Inventory</u>	=	51.2	44.0
Cost of Goods Sold / 360			
Operating Cycle - The number of days to convert inventory into sales plus the number of days it takes to collect AR		66.3	58.0
<u>Accounts Payables</u>	=	15.6	12.2
Cost of Goods Sold / 360			
Cash Flow Cycle		50.8	45.9

Leverage Ratios

- The use of debt is referred to as financial leverage
- Leverage ratios measure the extent of a firm's financing with debt relative to equity and its ability to cover interest and other fixed charges.

Leverage Ratios

Leverage ratios include:

- Debt to equity
- Debt ratio
- Long-term debt to total capitalization
- Times interest earned
- Fixed charge coverage
- Cash flow adequacy

Leverage Ratios

Debt to Equity

- Measures the riskiness of the firm's capital structure in terms of the relationship between the funds supplied by creditors (debt) and investors (equity)

Total Liabilities

Stockholder (Owner) Equity

Leverage Ratios

Debt to Asset Ratio

- Considers the proportion of all assets that are financed with debt

$$\frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Leverage Ratios

Stockholder (Owner) Equity

- Measures how much of the business the owners own

Total Equity

Total Assets

Leverage Ratio

Times Interest Earned

- Indicates how well operating earnings cover fixed interest expenses

Operating Profit

Interest Expense

Leverage Ratios

	Current Yr		Prior Yr		Variance	Variance Percentage
Current Assets						
Total Current Assets	76,802,084	57.11%	75,167,588	57.04%	1,634,496	2.17%
Property and Equipment						
Land and Land Improvements	3,728,894	2.77%	3,517,403	2.67%	211,491	6.01%
Buildings	34,776,203	25.86%	34,434,213	26.13%	341,990	0.99%
Equipment	62,453,787	46.44%	57,322,612	43.50%	5,131,175	8.95%
Construction In Progress	57,204	0.04%	110,761	0.08%	(53,557)	-48.35%
	101,016,088	75.12%	95,384,989	72.38%	5,631,099	5.90%
Less: Accumulated Depreciation	(72,996,451)	-54.28%	(68,822,260)	-52.23%	(4,174,191)	6.07%
Net Property and Equipment	28,019,637	20.84%	26,562,729	20.16%	1,456,908	5.48%
Investments and Other Assets						
Investment in Cooperatives	24,173,195	17.98%	24,744,112	18.78%	(570,917)	-2.31%
Investment in LLC's	4,399,022	3.27%	3,992,151	3.03%	406,871	10.19%
Intangible Assets	0	0.00%	10,389	0.01%	(10,389)	-100.00%
Note Receivables	160,400	0.12%	76,483	0.06%	83,917	109.72%
Account Receivables	926,852	0.69%	1,223,567	0.93%	(296,715)	-24.25%
Total Other Assets	29,659,469	22.05%	30,046,702	22.80%	(387,233)	-1.29%
Total Assets	134,481,190	100.00%	131,777,019	100.00%	2,704,171	2.05%
Current Liabilities						
Total Current Liabilities	25,018,026	18.60%	28,511,757	21.64%	(3,493,731)	-12.25%
Long Term Liabilities						
Other Long Term Liabilities	146,695	0.11%	232,615	0.18%	(85,920)	-36.94%
Pension Obligations	9,837,046	7.31%	9,035,348	6.86%	801,698	8.87%
Deferred federal Income Taxes	952,000	0.71%	715,500	0.54%	236,500	33.05%
Total Long Term Liabilities	10,935,741	8.13%	9,983,463	7.58%	952,278	9.54%
Total Liabilities	35,953,767	26.74%	38,495,220	29.21%	(2,541,453)	-6.60%
Shareholders' and Patrons' Equity						
Capital Stock	27,080	0.02%	26,530	0.02%	550	2.07%
Patrons' Equity Credits	0	0.00%	1,096,128	0.83%	(1,096,128)	-100.00%
General Reserve	111,408,375	82.84%	104,043,978	78.95%	7,364,397	7.08%
Accumulated Other Comprehensive Loss	(12,908,032)	-9.60%	(11,884,837)	-9.02%	(1,023,195)	8.61%
Total Shareholders' and Patron Equity	98,527,423	73.26%	93,281,799	70.79%	5,245,624	5.62%
Total Liabilities and Equity	134,481,190	100.00%	131,777,019	100.00%	2,704,171	2.05%

Leverage Ratios

Leverage Ratios With Specific Investments Included						
	Current Yr		Prior Yr		Variance	Variance Percentage
Total Assets	134,481,190	100.00%	131,777,019	100.00%	2,704,171	2.05%
Total Liabilities	35,953,767	26.74%	38,495,220	29.21%	(2,541,453)	-6.60%
Total Shareholders' and Patron Equity	98,527,423	73.26%	93,281,799	70.79%	5,245,624	5.62%
Debt to Equity		36.49%		41.27%		
Debt to Asset		26.74%		29.21%		
Stockholder (Owner) Equity		73.26%		70.79%		

Leverage Ratios With Specific Investments Excluded						
	2,016		2,015		Variance	Variance Percentage
Total Assets	110,307,995	100.00%	107,032,907	100.00%	3,275,088	3.06%
Total Liabilities	35,953,767 	32.59%	38,495,220	35.97%	(2,541,453)	-6.60%
Total Shareholders' and Patron Equity	74,354,228 	67.41%	68,537,687	64.03%	5,816,541	8.49%
Debt to Equity		48.35%		56.17%		
Debt to Asset		32.59%		35.97%		
Stockholder (Owner) Equity		67.41%		64.03%		

Profitability Ratios

Profitability ratios include:

- Gross Profit Margin
- Operating Profit Margin
- Net Profit Margin
- Cash Flow Margin
- Return on Total Assets (ROA)
- Return on Investment (ROI)
- Return on Equity (ROE)
- Cash Return on Assets

Profitability Ratios

Gross Profit and Gross Profit Margin

- First step of profit measurement
- Difference between Net Sales and Cost of Good Sold (COGS)
- The relationship between Gross Profit and Net Sales is called Gross Profit Margin
- Measures ability of a company to control costs of inventories or manufacturing of products and to pass along price increases through sales to customers
- Change in the COGS percentage may be caused by changes in cost or changes in selling price

Profitability Ratios

Gross Profit and Gross Profit Margin

- Gross profit margin remain relatively constant in stable industries and may change significantly in volatile industries
- Generally speaking, business try to maintain or increase Gross Profit and Gross Profit Margin

$$\frac{\text{Net Sales} - \text{Cost of Good Sold}}{\text{Gross Profit}}$$

$$\frac{\text{Gross Profit}}{\text{Net Sales}}$$

Profitability Ratios

Operating Profit and Operating Profit Margin

- Second step of profit measurement
- Operating Profit is also referred to as EBIT
- The relationship between Operating Profit and Net Sales is called Operating Profit Margin
- Measures overall operating efficiency and incorporates all of the expenses associated with ordinary business activities

Profitability Ratios

Operating Profit and Operating Profit Margin

- Provides a basis for assessing success of a business apart from financing and investing activities and separate from tax considerations

$$\frac{\text{Gross Profit} - \text{Operating Expenses}}{\text{Operating Profit}}$$

$$\frac{\text{Operating Profit}}{\text{Net Sales}}$$

Profitability Ratios

Net Profit and Net Profit Margin

- Third step of profit measurement
- The relationship between Net Profit and Net Sales is called Net Profit Margin
- Net Profit Margin shows the percentage of profit earned on every sales dollar

Profitability Ratios

Net Profit and Net Profit Margin

- Measures profitability after consideration of all revenue and expense, including interest, taxes, and non-operating items

$$\frac{\text{Operating Profit} - \text{Interest, taxes \& etc}}{\text{Net Profit}}$$

$$\frac{\text{Net Income}}{\text{Net Sales}}$$

Profitability Ratios

	Current Yr		Prior Yr		Variance	Variance Percentage
Sales - Supply	191,514,862		228,036,857		(36,521,995)	-16.02%
Sales - Marketing	101,882,762		128,442,907		(26,560,145)	-20.68%
Total Sales	293,397,624		356,479,764		(63,082,140)	-17.70%
Cost of Sales - Supply	158,580,247	82.80%	192,624,154	84.47%	(34,043,907)	-17.67%
Cost of Sales - Marketing	98,639,675	96.82%	122,670,189	95.51%	(24,030,514)	-19.59%
Total Cost of Sales	257,219,922	87.67%	315,294,343	88.45%	(58,074,421)	-18.42%
Gross Margin - Supply	32,934,615	17.20%	35,412,703	15.53%	(2,478,088)	-7.00%
Gross Margin - Marketing	3,243,087	3.18%	5,772,718	4.49%	(2,529,631)	-43.82%
Total Gross Margin	36,177,702	12.33%	41,185,421	11.55%	(5,007,719)	-12.16%
Other Revenue	9,738,986	3.32%	10,616,542	2.98%	(877,556)	-8.27%
Operating Expenses	39,767,418	13.55%	42,364,001	11.88%	(2,596,583)	-6.13%
Operating Profit	6,149,270	2.10%	9,437,962	2.65%	(3,288,692)	-34.85%
Patronage Refunds	2,476,162	0.84%	4,862,006	1.36%	(2,385,844)	-49.07%
Income from Investments in Affiliated Businesses	414,370	0.14%	484,583	0.14%	(70,213)	-14.49%
Other Non-Operating Revenue	1,425,438	0.49%	1,839,708	0.52%	(414,270)	-22.52%
Other Non-Operating Expenses	(157,730)	-0.05%	(259,546)	-0.07%	101,816	-39.23%
Interest Expense	(145,643)	-0.05%	(436,673)	-0.12%	291,030	-66.65%
Gain on Disposal of Property, Equipment and Investments	223,123	0.08%	191,963	0.05%	31,160	16.23%
Net Other Revenue (Expense)	4,235,720	1.44%	6,682,041	1.87%	(2,446,321)	-36.61%
Profit Before Income Tax	10,384,990	3.54%	16,120,003	4.52%	(5,735,013)	-35.58%
Provision For Income Tax	110,500	0.04%	3,411,000	0.96%	(3,300,500)	-96.76%
Net Profit	10,274,490	3.50%	12,709,003	3.57%	(2,434,513)	-19.16%

Profitability Ratios

Earnings Before Interest & Tax

- Referred to as EBIT
- Measures the profitability of a company without taking into account its cost of capital or tax implications.
- It is the difference between operating revenues and operating expenses.
 - If the business does not have non-operating income, then operating income is sometimes referred to as EBIT or Operating Profit

Profitability Ratios

Earning Before Interest, Taxes, Depreciation and Amortization Expense

- Referred to as EBITDA
- EBITDA is more likely to be used in the analysis of capital-intensive firms or those amortizing large amounts of intangible assets. Otherwise, the depreciation and/or amortization expense can overwhelm their net earnings, giving the appearance of substantial losses
- A good metric to evaluate profitability, but not cash flow

Profitability Ratios

Earning Before Interest, Taxes, Depreciation and Amortization Expense

- Simplest Formula

- Operating Profit + Depreciation Expense + Amortization Expense

- Literal Formula

- Net Profit + Interest + Taxes + Depreciation Expense + Amortization Expense

Cash Flow

“Joan and Joe: A Tale of Woe”

*Joe added up profits and went to see Joan,
Assured of obtaining a much-needed loan.*

When Joe arrived, he announced with good cheer:

*“My firm has had an outstanding year,
“And now I need a loan from your bank.”*

Eyeing the statements, Joan’s heart sank.

“Your profits are fine,” Joan said to Joe.

“But where, oh where, is your company’s cash flow?

I’m sorry to say: the answer is ‘no’.”

—L. FRASER

Cash Flow

When analyzing the Statement of Cash Flow, one should consider

- Cash Flow from Operating Activities
 - Fluctuation in Cash Flow from Operation over time
 - Magnitude of positive or negative Cash Flow From Operation
 - Understand the causes of the positive or negative Cash Flow from Operations
 - Generating cash from operations is the preferred method for obtaining excess cash to finance
 - capital expenditures and expansion
 - repayment of debt
 - payment of dividends

Cash Flow

- Success or failure of the business is in generating cash from operations
- Cash inflows
- Cash outflows
 - The necessity of the outflow
 - How are outflows financed
- Importance of internal cash generation and the implications for investing and financing activities when this does and does not occur

Cash Flow

- Generally, it is best to finance
 - Short term assets with short-term debt
 - Long term assets with long-term debt or issuance of stock
- Notes reveal future debt repayments and are useful in assessing how much cash will be needed in upcoming years to repay outstanding debt.

Cash Flow

Cash Flow Margin

- Measures the firm's ability to translate sales into cash.
- The relationship between cash generated from operations and from sales is another measure of operating performance.
- Cash Flow Margin is cash profits generated internally from operations.
- Cash Flow Margin is not accrual accounting profits that a firm needs to service debt financing, pay dividends and invest in new capital assets.

Cash Flow

Cash Flow Margin

Cash Flow from Operating Activities

Net Sales

Cash Flow

Cash Flow From Operating Activities	Current Yr	Prior Yr
Net Income (Net Profit)	10,274,490	12,709,003
Adjustment to reconcile Net Income to Net Cash provided by operating activities		
Depreciation and Amortization	5,197,531	4,956,727
Gain on disposal of property, equipment and investments	(223,123)	(191,963)
Adjustment to record property at net realizable value	0	26,708
Noncash patronage refunds received and partnership profit allocations	(1,289,083)	(2,106,318)
Pension contributions in excess of expense	(627,952)	(1,927,180)
Provision for deferred taxes	767,500	1,146,000
Changes in Assets and Liabilities		
Notes and Accounts Receivables (Net)	2,928,186	2,105,254
Miscellaneous Receivables	(1,790,232)	860,596
Brokerage Accounts	(664,621)	794,135
Forward Contracts (Net)	840,523	(1,934,676)
Inventory	4,665,436	1,168,262
Prepaid Inventory and Expenses	(2,947,877)	(5,845,304)
Accounts Payable and Other Liabilities	108,147	433,845
Customer Prepaid Balances	(568,885)	(102,472)
Net Cash provided or used by Operating Activities	16,670,040	12,092,617

Cash Flow

Cash Flow From Investing Activities	Current Yr	Prior Yr
Proceeds from sale of Property and Equipment	236,715	252,016
Proceeds from sale and retirement of Investments	1,486,840	1,517,941
Expenditures for Property and Equipment	(6,657,642)	(6,548,878)
Purchase of Investments	(126,757)	(33,765)
Net Cash provided or used by Investing Activities	(5,060,844)	(4,812,686)
Cash Flow From Financing Activities		
Capital Stock sold	600	445
Capital Stock redeemed	(50)	(835)
Patrons' Equity redeemed	(1,110,949)	(109,696)
Patrons' refunds paid	(3,395,272)	(3,098,509)
Payment on Long Term Loans	(1,852,458)	(2,181,600)
Net change in bank overdrafts	(1,881,266)	(551,905)
Net Cash provided or used by Financing Activities	(8,239,395)	(5,942,100)
Net Increase or decrease in Cash and Cash Equivalents	3,369,801	1,337,831
Cash and Cash Equivalents at beginning of Year	11,800,916	10,463,085
Cash and Cash Equivalents at end of year	15,170,717	11,800,916



Financial Statement Analysis

Questions

Thank You