

TAKING THE **FEAR** OUT OF FINANCIAL STATEMENT ANALYSIS

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Map:

Helps its user reach a
desired destination
through clarity of
representation



Maze:

On the other hand. . .

Attempts to confuse its user by
purposefully introducing conflicting
elements and complexities that prevent
reaching the desired goal

Financial Statements - MAP

- Form basis for understanding the financial position of a firm
- Allow users to assess historical and prospective financial performance
- Present picture of firm's financial health, leading to informed business decisions

Financial Statements - MAZE

- Contain large amounts of information
- Accounting policies and reporting requirements are complex and constantly changing
- Allow management considerable discretion
- Hide or omit key information

Why use financial statements?

Savvy use of financial statements allows user to assess:

- Financial position of the company
- Success of its operations
- Policies and strategies of management
- Insight into future performance

Where to Find a Company's Financial Statements:

- Form 10-K
- Annual report
- Website

The 4 Basic Financial Statements

- Balance Sheet
- Income Statement or Earnings Statement
- Statement of Stockholders' Equity
- Statement of Cash Flows

The Balance Sheet

Also called the statement of condition or statement of financial position

Financial Condition

Shows the financial condition or financial position of a company *on a particular date*

Financial Condition

Assets = Liabilities + Stockholders' equity

Assets = What the firm *owns*

Liabilities = What the firm *owes* to outsiders

Stockholders' equity = What the firm *owes* to
Internal owners

Assets

Generally presented in order of liquidity
Common Balance Sheet Accounts/Groupings

■ Current Assets

- Cash and Marketable Securities
- Accounts Receivable
- Inventories
- Prepaid Expenses

■ Long-Term Assets

- Property, Plant, and Equipment
- Other Assets

A Few Definitions

Current Assets - Cash or other assets expected to be converted into cash within one year or one operating cycle, whichever is longer

Operating Cycle - Time required to purchase or manufacture inventory, sell the product, and collect the cash



A Few Definitions

Working Capital (Net working capital)—
designates the amount by which current
assets exceed current liabilities



Cash & Marketable Securities

Two accounts are often combined as
“Cash and Cash Equivalents”

Cash

- Cash in any form—cash awaiting deposit or in a bank account
- Generally includes currency, coin, balances in checking and other demand or “near demand” accounts



Inventories

Items held for sale or used in the
manufacture of products that will be sold

Property, Plant, & Equipment (PP&E)

Encompasses a company's fixed assets

- Also called tangible, long-lived, and capital assets

Fixed assets other than land are "depreciated" over the period of time they benefit the firm

- process of depreciation is method of allocating the cost of long-lived assets

Property, Plant, & Equipment (PP&E)

On any balance sheet date, PP&E is shown at BOOK VALUE

Book value = original cost
- accumulated depreciation to date

Liabilities

Represent claims against assets by creditors
Current Liabilities must be satisfied in one year or one operating cycle and include:

- Accounts Payable
- Notes Payable
- Current Portion of Long-Term Debt
- Accrued Liabilities
- Unearned Revenue
- Deferred Taxes



Liabilities

Accounts Payable

- Short-term obligations that arise from credit extended by suppliers for the purchase of goods and services
- Account is eliminated when the bill is satisfied
- Significant changes from period to period often result from changes in sales volume, economic conditions or credit policies available to firm from its suppliers



Liabilities

Notes Payable

- Short-term obligations in the form of promissory notes and/or lines of credit to suppliers or financial institutions



Noncurrent Liabilities

Obligations with maturities beyond one year

- Long-Term Debt
- Capital Lease Obligations
- Postretirement Benefits Other Than Pensions
- Commitments and Contingencies
- Hybrid Securities



Noncurrent Liabilities

Long-Term Debt

- Bonds
- Long-Term Notes Payable
- Mortgages
- Obligations under leases
- Pension Liabilities
- Long-Term Warranties



Noncurrent Liabilities

Capital Lease Obligations

- Are, in substance, a “purchase” rather than a “lease”
- Affect both balance sheet and income statement



Stockholders' Equity

Ownership equity is the residual interest in assets that remains after deducting liabilities



Stockholders' Equity

Common Stock

Shareholders:

Do not ordinarily receive a fixed return

Have voting privileges in proportion to ownership interest

Dividends are declared at the discretion of a company's board of directors



Stockholders' Equity

Additional Paid-In Capital

Reflects the amount by which the original sales price of the stock shares exceeded par value



Stockholders' Equity

Retained Earnings

Is the sum of every dollar a company has earned since its inception, less any payments made to shareholders in the form of cash or stock dividends

Beginning retained earnings
± Net income (loss) – Dividends
= Ending retained earnings



The Income Statement

Also called the Statement of Earnings Presents:

Revenues
Expenses
Net Income
Earnings Per Share



The Income Statement

Multiple-step

Provides several intermediate profit measures prior to the amount of net earnings for the period:

- Gross profit
- Operating profit
- Earnings before income taxes

Should be used for purposes of analysis



The Income Statement

Single-step

Groups all items of revenue together, then deducts all categories of expense to arrive at a figure for net income



Statement of Cash Flows

Provides information about cash inflows and outflows during an accounting period



Statement of Cash Flows

Why is it important???

“A positive net income on the income statement is ultimately insignificant unless a company can translate its earnings into cash, and the only source in financial statement data for learning about the generation of cash from operations is the statement of cash flows”



Preparing a Statement of Cash Flows

- Begins with a return to the balance sheet
- Is prepared by calculating changes in all of the balance sheet accounts

Preparing a Statement of Cash Flows

Four parts of a statement of cash flows:

1. Cash
2. Operating activities
3. Investing activities
4. Financing activities

Preparing a Statement of Cash Flows

Cash includes

If company separates marketable securities into two accounts: cash and cash equivalents and short-term investments, the short-term investments are:

Classified as investing activities

Preparing a Statement of Cash Flows

Operating Activities include

- Delivering or producing goods for sale and providing services
- The cash effects of transactions and other events that enter into the determination of income



Preparing a Statement of Cash Flows

Operating Activities Examples

- Cash flows resulting from sales of goods
- Purchase of inventories
- Payments for operating expenses



Preparing a Statement of Cash Flows

Investing Activities include

- Acquiring/disposing of securities that are not cash equivalents
- Acquiring/disposing of productive assets
- Lending money/collecting on loans



Preparing a Statement of Cash Flows

Financing Activities include

- Borrowing from creditors/repaying the principal
- Obtaining resources from owners
- Providing owners with a return on investment

Preparing a Statement of Cash Flows

Inflow	Outflow
- Asset account	+ Asset account
+ Liability account	- Liability account
+ Equity account	- Equity account

Analyzing the Statement of Cash Flows

Is an important analytical tool for creditors, investors and other users of financial statement data

Analyzing the Statement of Cash Flows

Indicates

- Firm's ability to generate cash flows in the future
- Firm's capacity to meet cash obligations
- Firm's future external financing needs

Analyzing the Statement of Cash Flows

Indicates

- Firm's success in productively managing investing activities
- Firm's effectiveness in implementing financing and investing strategies

Cash Flow from Operations

It is possible for a firm to be highly profitable and not be able to:

- Pay dividends or invest in new equipment
- Service debt

Cash Flow from Operations

It is also possible for a firm to be highly profitable and go bankrupt

Cash Flow from Operations

How?

The problem is cash

Cash Flow from Operations

The ongoing operation of any business depends upon its success in generating cash from operations

Financial Statement Notes

- An INTEGRAL part of the statements
- Provide summary of accounting policies
- Present detail about particular accounts (e.g. inventory, investments, etc.)
- Include other information (e.g. leasing arrangements, pending legal proceedings, income taxes, etc.)



Auditor's Report

Unqualified
Qualified
Adverse Opinion
Disclaimer of Opinion



Auditor's Report

- **Unqualified** (what you want!)
 - Statements present information in conformity with GAAP
- **Qualified**
 - Reports other than an unqualified opinion due to various circumstances
 - Typically use word "except for"



Auditor's Report

- **Adverse opinion** (not what you want!)
 - Financial statements have not been presented fairly in accordance with GAAP
- **Disclaimer of opinion** is issued when
 - auditor can't evaluate the fairness of the statements and expresses no opinion
 - there is material scope limitation of the audit
 - there is lack of independence by the auditor
 - remember, the auditor is hired by the firm being audited, so there is always the possibility of conflict of interest

Management Discussion & Analysis (MD&A)

- Sometimes labeled “Financial Review”
- Contains information that cannot be found in the financial data

Includes discussion of:

1. Internal/external sources of liquidity
2. Any material deficiencies in liquidity and how they will be remedied
3. Commitments for capital expenditures/sources of funding

Quality of Financial Reporting

Management has considerable discretion within GAAP

Potential exists to “manipulate” the profit/loss reported

Common Size Analysis

- Common sizing is a method in which one can analyze the financial strength and performance of a company. It is important to have three years of financial statements in order to make common sizing analysis meaningful. There are two types of common sizing.

Common Size Analysis

- **Vertical Analysis** - Compares each amount with a base amount selected from the same year.
- On the balance sheet, total assets are assigned a value of 100 percent. Because total assets equal liabilities and owner's equity, the amount for total liabilities and owner's equity is also give 100 percent. All assets accounts are compared to total assets. Same is true for liabilities and owner's equity.
- This helps to analyze the "make up" of our balance sheet accounts.
- In the income statement, sales are the 100 percent figure. All other items are compared to sales. Helps to tell how efficiently we are selling. Are we getting the "Best Bang" for our buck.

Common Size Analysis

- **Horizontal Analysis** - compares several annual balance sheets or income statements. The change in an account on a statement is compared to a base amount for a selected base year.
- Compares one period to another so that you can see the trend that a company is going toward.
- It is very important to see a trend with a company rather than simply look at one period of time.

Ratio Analysis

Ratio analysis is a method to use formulas to measure a company's financial strength and efficiency in particular areas. There are basically three types of ratios.

Ratio Analysis

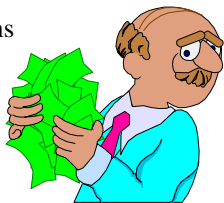
- **Liquidity Ratios** - Short-term debt. Can the company pay its debts when they come due? Most unsecured trade creditors are most interested in liquidity ratios.
- **Leverage Ratios** - Long term debt. Does the company have enough total assets to cover its total debt? Would there be anything left as equity?

Ratio Analysis

- **Activity Ratios** – Measures the liquidity of specific assets and efficiency in which a company manages those assets.
- **Profitability Ratios** – Measures the overall performance of the company. Looks at its efficiency and operating success.

Liquidity Ratios

- Current ratio
- Quick or acid test ratio
- Cash flow from operations
- Cash flow liquidity ratio
- Working capital



Leverage Ratios

Financing

- Debt ratio
- Debt to equity
- Times interest earned



Activity Ratios

- Average Collection Period
- Inventory Carrying Period
- Accounts Payable Outstanding
- Total Asset Turnover
- Fixed Asset Turnover



Profitability Ratios

- Gross profit margin
 - Sales and Cost of goods sold
- Operating profit margin
 - Operating expenses
- Net profit margin
- Return on assets
- Return on equity (ROE)
- Return on Investment (ROI)



Financial Statement Analysis Examples

Please note that the following slides are taken from Understanding Financial Statements, Eighth Edition, by Lyn M. Fraser and Aileen Ormiston

Balance Sheets & Income Statements R.E.C., Inc.

CONSOLIDATED BALANCE SHEET (000)						
R.E.C., Inc.		2007	%	2006	%	
ASSETS						
CURRENT ASSETS						
Cash and cash equivalents	\$	9,333	9.8%	\$	10,386	13.7%
Receivables:						
Trade, less allowance for doubtful accounts	\$	8,960	9.4%	\$	8,350	11.0%
2007 -- \$448; 2006 -- \$417	\$	-	0.0%	\$	-	0.0%
Inventory	\$	47,041	49.4%	\$	36,769	48.4%
Prepaid expenses	\$	512	0.5%	\$	759	1.0%
Other	\$	-	0.0%	\$	-	0.0%
Total current assets	\$	65,846	69.1%	\$	56,264	74.1%
FIXED ASSETS						
Plant, property, and equipment at cost						
Land	\$	811	0.9%	\$	811	1.1%
Building	\$	18,273	19.2%	\$	11,928	15.7%
Equipment	\$	21,523	22.6%	\$	13,768	18.1%
	\$	-	0.0%	\$	-	0.0%
	\$	-	0.0%	\$	-	0.0%
	\$	-	0.0%	\$	-	0.0%
	\$	-	0.0%	\$	-	0.0%
Gross plant, property, and equipment	\$	40,607	42.6%	\$	26,507	34.9%
Less accumulated depreciation and amortization	\$	11,528	12.1%	\$	7,530	9.9%
TOTAL FIXED ASSETS	\$	29,079	30.5%	\$	18,977	25.0%
OTHER ASSETS						

LIABILITIES AND SHAREHOLDERS' EQUITY						
CURRENT LIABILITIES						
Note payable to bank	\$	5,614	5.9%	\$	6,012	7.9%
Current maturities of long-term debt	\$	1,884	2.0%	\$	1,516	2.0%
Trade accounts payable	\$	14,294	15.0%	\$	7,591	10.0%
Accrued expenses	\$	5,669	5.9%	\$	5,313	7.0%
Total current liabilities	\$	27,461	28.8%	\$	20,432	26.9%
LONG-TERM DEBT						
Less current maturities	\$	21,059	22.1%	\$	16,975	22.4%
DEFERRED INCOME TAXES	\$	843	0.9%	\$	635	0.8%
DEFERRED REVENUE	\$	-	0.0%	\$	-	0.0%
TOTAL LIABILITIES	\$	49,363	51.8%	\$	38,042	50.1%
SHAREHOLDERS' EQUITY						
Common stock, par value \$1 per share; authorized 10,000,000 shares; issued and outstanding 2007--4,803,000 shares;	\$	4,803	5.0%	\$	4,594	6.1%
Additional paid-in capital	\$	957	1.0%	\$	910	1.2%
Retained earnings	\$	40,175	42.2%	\$	32,363	42.6%
TOTAL SHAREHOLDER'S EQUITY	\$	45,935	48.2%	\$	37,867	49.9%
TOTAL LIABILITIES AND EQUITY	\$	95,298	100.0%	\$	75,909	100.0%

CONSOLIDATED STATEMENT OF INCOME(000)						
R.E.C., Inc.	2007	%	2006	%	2005	%
NET SALES						
Net sales	\$ 215,600	100.0%	\$ 153,000	100.0%	\$ 140,700	100.0%
Cost of goods sold	\$ 129,364	60.0%	\$ 91,879	60.1%	\$ 81,606	58.0%
Gross Profit Margin	\$ 86,236	40.0%	\$ 61,121	39.9%	\$ 59,094	42.0%
OPERATING EXPENSES						
S&A, lease, D&A, and R&M	\$ 52,735	24.5%	\$ 38,533	25.2%	\$ 38,297	27.2%
Advertising	\$ 14,258	6.6%	\$ 10,792	7.1%	\$ 9,541	6.8%
Total operating expenses	\$ 66,993	31.1%	\$ 49,315	32.2%	\$ 47,838	34.0%
Operating Profit Margin	\$ 19,243	8.9%	\$ 11,806	7.7%	\$ 11,256	8.0%
OTHER INCOME (EXPENSE)						
Interest expense	\$ 2,585	1.2%	\$ 2,277	1.5%	\$ 1,274	0.9%
Interest income	\$ 422	0.2%	\$ 838	0.5%	\$ 738	0.5%
Income before taxes	\$ 17,080	7.9%	\$ 10,367	6.8%	\$ 10,720	7.6%
Federal and state income taxes	\$ 7,686	3.6%	\$ 4,457	2.9%	\$ 4,324	3.1%
Net Profit Margin	\$ 9,394	4.4%	\$ 5,910	3.9%	\$ 5,896	4.2%
NET INCOME PER COMMON AND COMMON EQUIVALENT SHARE						
Primary	\$ 1.96		\$ 1.29		\$ 1.33	
WEIGHTED AVERAGE COMMON AND COMMON EQUIVALENT SHARES OUTSTANDING						
Primary	4,792		4,581		4,433	

Cash Flow

R.E.C., Inc.

CONSOLIDATED STATEMENTS OF CASH FLOW(000)			
R.E.C., Inc.	2007	2006	2005
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 9,394	\$ 5,910	\$ 5,896
Adjustment to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	\$ 3,998	\$ 2,984	\$ 2,501
Deferred income taxes	\$ 208	\$ 135	\$ 118
Changes in assets and liabilities:			
Receivables	\$ (610)	\$ (3,339)	\$ (448)
Inventory	\$ (19,272)	\$ (7,096)	\$ (3,333)
Prepaid expenses	\$ 247	\$ 295	\$ (82)
Trade accounts payable	\$ 6,763	\$ (1,051)	\$ 902
Accrued expenses	\$ 395	\$ (1,496)	\$ (927)
Income taxes	\$ 11	\$ -	\$ -
Net cash provided by (used in) operating activities	\$ 10,024	\$ (3,747)	\$ 5,629
CASH FLOWS FROM INVESTING ACTIVITIES			
Additions to property, plant, and equipment	\$ (14,100)	\$ (4,773)	\$ (3,982)
Other investing activities	\$ 295	\$ -	\$ -
Net cash used in investing activities	\$ (13,805)	\$ (4,773)	\$ (3,982)
CASH FLOWS FROM FINANCING ACTIVITIES			
Sale of common stock	\$ 256	\$ 183	\$ 124
Increase(decrease) in short-term borrowings	\$ (30)	\$ 1,854	\$ 1,326
Additions to long-term borrowings	\$ 5,400	\$ 7,882	\$ 629
Reductions of long-term borrowings	\$ (9,316)	\$ (1,933)	\$ (127)
Dividends paid	\$ (1,582)	\$ (3,822)	\$ (1,841)
Net cash provided by financing activities	\$ 2,728	\$ 4,664	\$ 111
Increase in cash and cash equivalents	\$ (1,053)	\$ (2,976)	\$ 1,758
CASH AND CASH EQUIVALENTS			
Beginning	\$ 10,386	\$ 12,462	\$ 10,704
Ending	\$ 9,333	\$ 9,486	\$ 12,462

Ratios

R.E.C., Inc.

R.E.C., Inc.	2007	2006	Category
Current ratio - Pg. 198	2.40	2.75	Liquidity
Quick ratio - Pg. 200	0.68	0.95	Liquidity
Cash flow liquidity ratio - Pg. 200	0.70	0.32	Liquidity
Working capital - Pg. 48	\$ 38,385	\$35,832	Liquidity
Average collection period - Pg. 201	15	20	Activity/Efficiency
Inventory in days - Pg. 202	131	144	Activity/Efficiency
Days Payable Outstanding - Pg. 202	40	30	Activity/Efficiency
Trade cycle - Pg. 202	0	0	Activity/Efficiency
Cash conversion cycle - Pg. 202	0	0	Activity/Efficiency
Fixed asset turnover - Pg. 204	7.41	8.06	Activity/Efficiency
Total asset turnover - Pg. 204	2.26	2.02	Activity/Efficiency
Debt ratio - Pg. 204	51.8%	50.1%	Leverage/Debt
Debt to Equity - Pg. 205	1.07	1.0	Leverage/Debt
Long-term debt to total capitalization - Pg. 205	31.4%	31.0%	Leverage/Debt
Times interest earned - Pg. 206	7.4	5.2	Leverage/Debt
Cash flow adequacy - Pg. 207	4.6	-1.6	Leverage/Debt
Gross profit margin - Pg. 207	40.0%	39.9%	Profitability
Operating profit margin - Pg. 207	8.9%	7.7%	Profitability
Net profit margin - Pg. 207	4.4%	3.9%	Profitability
Cash flow margin - Pg. 208	4.6%	-2.5%	Profitability
Return on investment/assets - Pg. 208	9.9%	7.8%	Profitability
Return on equity - Pg. 208	20.5%	15.6%	Profitability
Cash return on assets - Pg. 209	10.5%	-5.0%	Profitability
Price-to-earnings ratio - Pg. 211	15.3	13.2	Profitability

Income Statement OG Corporation

OG Corporation				
Income Statement	This Year	%	Last Year	%
Net Sales	\$ 680,000	100.0%	\$600,000	100.00%
Cost of goods sold	\$ 410,000	60.3%	\$330,000	55.00%
Gross profit	\$ 270,000	39.7%	\$270,000	45.00%
Operating expenses	\$ 190,000	27.9%	\$192,000	32.00%
Operating income	\$ 80,000	11.8%	\$78,000	13.00%
Interest expense	\$ 7,000	1.0%	\$2,000	0.30%
Profit before taxes	\$ 73,000	10.7%	\$76,000	12.70%
Taxes (.30)	\$ 22,000	3.2%	\$22,800	3.80%
Net Income	\$ 51,000	7.5%	\$53,200	8.90%

Balance Sheet OG Corporation

Balance Sheet	This Year	%	Last Year	%
Current assets				
Cash	\$ 50,000	8.8%	\$ 40,000	8.9%
Accounts receivable	\$ 80,000	14.0%	\$ 60,000	13.3%
Inventories	\$ 180,000	31.8%	\$ 110,000	24.4%
Total current assets	\$ 310,000	54.4%	\$ 210,000	46.7%
Fixed assets				
Plant & Equipment	\$ 300,000	52.6%	\$ 260,000	57.8%
Less accumulated depreciation	\$ (40,000)	-7.0%	\$ (20,000)	-4.4%
Total fixed assets	\$ 260,000	45.6%	\$ 240,000	53.3%
Total assets	\$ 570,000	100.0%	\$ 450,000	100.0%
Current liabilities				
Accounts payable	\$ 100,000	17.5%	\$ 150,000	33.3%
Accrued liabilities	\$ 70,000	12.3%	\$ 50,000	11.1%
Total current liabilities	\$ 170,000	29.8%	\$ 200,000	44.4%
Long term liabilities				
Mortgage payable	\$ 80,000	14.0%	\$ -	0.0%
Total long term liabilities	\$ 80,000	14.0%	\$ -	0.0%
Total liabilities	\$ 250,000	43.9%	\$ 200,000	44.4%
Owners equity				
Common stock	\$ 130,000	22.8%	\$ 90,000	20.0%
Retained earnings	\$ 190,000	33.3%	\$ 160,000	35.6%
Total owners equity	\$ 320,000	56.1%	\$ 250,000	55.6%
Total liabilities and equity	\$ 570,000	100.0%	\$ 450,000	100.0%

Statement of Cash Flows OG Corporation

OG Corporation (Indirect Method)	
Cash flow from operating activities:	
Net income	\$ 51,000
Noncash revenue and expense included in net income:	
Depreciation	\$ 20,000
Cash provided by (used for) current operating assets and liabilities:	
Increase in accounts receivable	\$ (20,000)
Increase in inventory	\$ (70,000)
Increase in accounts payable	\$ (50,000)
Increase in accrued liabilities	\$ 20,000
Net cash provided by (used for) operating activities	\$ (49,000)
Cash flow from investing activities:	
Property, plant, & equipment	\$ (40,000)
Net cash provided by (used for) investing activities	\$ (40,000)
Cash flow from financing activities:	
Sale of common stock	\$ 40,000
Mortgage loan	\$ 80,000
Dividends paid	\$ (21,000)
Net cash provided by (used for) financing activities	\$ 99,000
Increase (decrease) in cash	\$ 10,000
Reconcile cash	
Beginning cash	\$ 40,000
Increase in cash	\$ 10,000
Ending cash	\$ 50,000
Reconcile retained earnings	
Beginning retained earnings	\$ 160,000
+ Net income	\$ 51,000
- Dividends paid	\$ (21,000)
Ending retained earnings	\$ 190,000

Ratios Worksheet OG Corporation

OG Corporation (Ratios) Worksheet			
Activity ratios: (measures the liquidity of specific assets and the efficiency of managing assets)			
Average Collection Period			
$\text{= (accounts receivable / sales)} \times 360$		This Year	
			days
	Last Year		days
		This Year	days
		Last Year	days
		This Year	days
		Last Year	days
		This Year	turns
		Last Year	turns
		This Year	turns
		Last Year	turns
		This Year	days
		Last Year	days

Ratios Worksheet OG Corporation

Liquidity ratios: (measures short-term solvency)			
Current ratio			
$\text{= current assets / current liabilities}$		This Year	
	Last Year		
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	

Ratios Worksheet OG Corporation

Leverage ratios: (measures how the firm is financed and its ability to cover interest and other fixed charges)			
Debt Ratio			
$\text{= total liabilities / total assets}$		This Year	
	Last Year		
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	
		Last Year	
		This Year	
		Last Year	

Ratios Worksheet OG Corporation

Profitability ratios: (measures overall performance - earning power - efficiency - return on investment)

Gross Profit Margin
= gross profit / net sales

This Year	
Last Year	

Operating Profit Margin
= EBIT / net sales

This Year	
Last Year	

Net Profit Margin (Earning Power) (A)
= net income / net sales

This Year	
Last Year	

Profitability of Investments

1) **Return on assets (Margins & Turnover) (A x B)**
= (net income + interest x (1 - tax rate)) / assets

This Year	
Last Year	

2) **Return on equity (Net Profit Margin x Total Asset Turnover x Financial Leverage) (A x B x C)**
= net income / equity

This Year	
Last Year	

Ratios Solutions OG Corporation

Activity ratios: (measures the liquidity of specific assets and the efficiency of managing assets)

Average Collection Period
= (accounts receivable / sales) x 360

This Year			
\$	80,000	x 360	42 days
\$	680,000		
Last Year			
\$	60,000	x 360	36 days
\$	600,000		

Inventory Carrying Period
= (inventory / cost of goods sold) x 360

This Year			
\$	380,000	x 360	158 days
\$	410,000		
Last Year			
\$	110,000	x 360	120 days
\$	330,000		

Fixed Asset Turnover
= net sales / net PP&E

This Year		
\$	680,000	2.6 turns
\$	260,000	
Last Year		
\$	600,000	2.5 turns
\$	240,000	

Total Asset Turnover (B)
= net sales / total assets

This Year		
\$	680,000	1.2 turns
\$	570,000	
Last Year		
\$	600,000	1.3 turns
\$	450,000	

Accounts Payable Outstanding
= (accounts payable / cost of goods sold) x 360

This Year			
\$	100,000	x 360	88 days
\$	410,000		
Last Year			
\$	150,000	x 360	104 days
\$	330,000		

Ratios Solutions OG Corporation

Liquidity ratios: (measures short-term solvency)

Current ratio
= current assets / current liabilities

This Year		
\$	310,000	1.8
\$	170,000	
Last Year		
\$	210,000	1.1
\$	200,000	

Quick or Acid-Test Ratio
= (cash + marketable securities + receivables) / current liabilities

This Year		
\$	130,000	0.8
\$	170,000	
Last Year		
\$	100,000	0.5
\$	200,000	

Cash Flow Liquidity Ratio
= (cash + marketable securities + cash flow from operating activities) / current liabilities

This Year		
\$	1,000	0.01
\$	170,000	

Ratios Solutions OG Corporation

Leverage ratios: (measures how the firm is financed and its ability to cover interest and other fixed charges)

Debt Ratio		
= total liabilities / total assets	This Year	
	\$ 250,000	44%
	\$ 570,000	
	Last Year	
	\$ 200,000	44%
	\$ 450,000	
Debt to Equity		
= total liabilities / equity	This Year	
	\$ 250,000	0.78
	\$ 320,000	
	Last Year	
	\$ 200,000	0.80
	\$ 250,000	
Times Interest Earned		
= EBIT / interest	This Year	
	\$ 80,000	11
	\$ 7,000	
	Last Year	
	\$ 78,000	39
	\$ 2,000	
Financial Leverage (C)		
= assets / equity	This Year	
	\$ 570,000	1.8
	\$ 320,000	
	Last Year	
	\$ 450,000	1.8
	\$ 250,000	

Ratios Solutions OG Corporation

Profitability ratios: (measures overall performance - earning power - efficiency - return on investment)

Gross Profit Margin		
= gross profits / net sales	This Year	
	\$ 270,000	40%
	\$ 680,000	
	Last Year	
	\$ 270,000	45%
	\$ 600,000	
Operating Profit Margin		
= EBIT / net sales	This Year	
EBIT=Earnings before interest and taxes	\$ 80,000	11.8%
	\$ 680,000	
	Last Year	
	\$ 78,000	13.0%
	\$ 600,000	
Net Profit Margin (Earning Power) (A)		
= net income / net sales	This Year	
	\$ 51,000	7.5%
	\$ 680,000	
	Last Year	
	\$ 53,200	8.9%
	\$ 600,000	

Ratios Solutions OG Corporation

Profitability of Investments

1) Return on assets (Margins & Turnover) (A x B)		
= [net income + interest X (1-tax rate)] / assets	This Year	
	A x B	8.9%
	Last Year	
	A x B	11.8%
2) Return on equity (Net Profit Margin x Total Asset Turnover x Financial Leverage) (A x B x C)		
= net income / equity	This Year	
	A x B x C	15.9%
	Last Year	
	A x B x C	21.3%
