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Advanced Financial Statement and Credit Analysis

Annual Conference 2016 – Orlando, Florida

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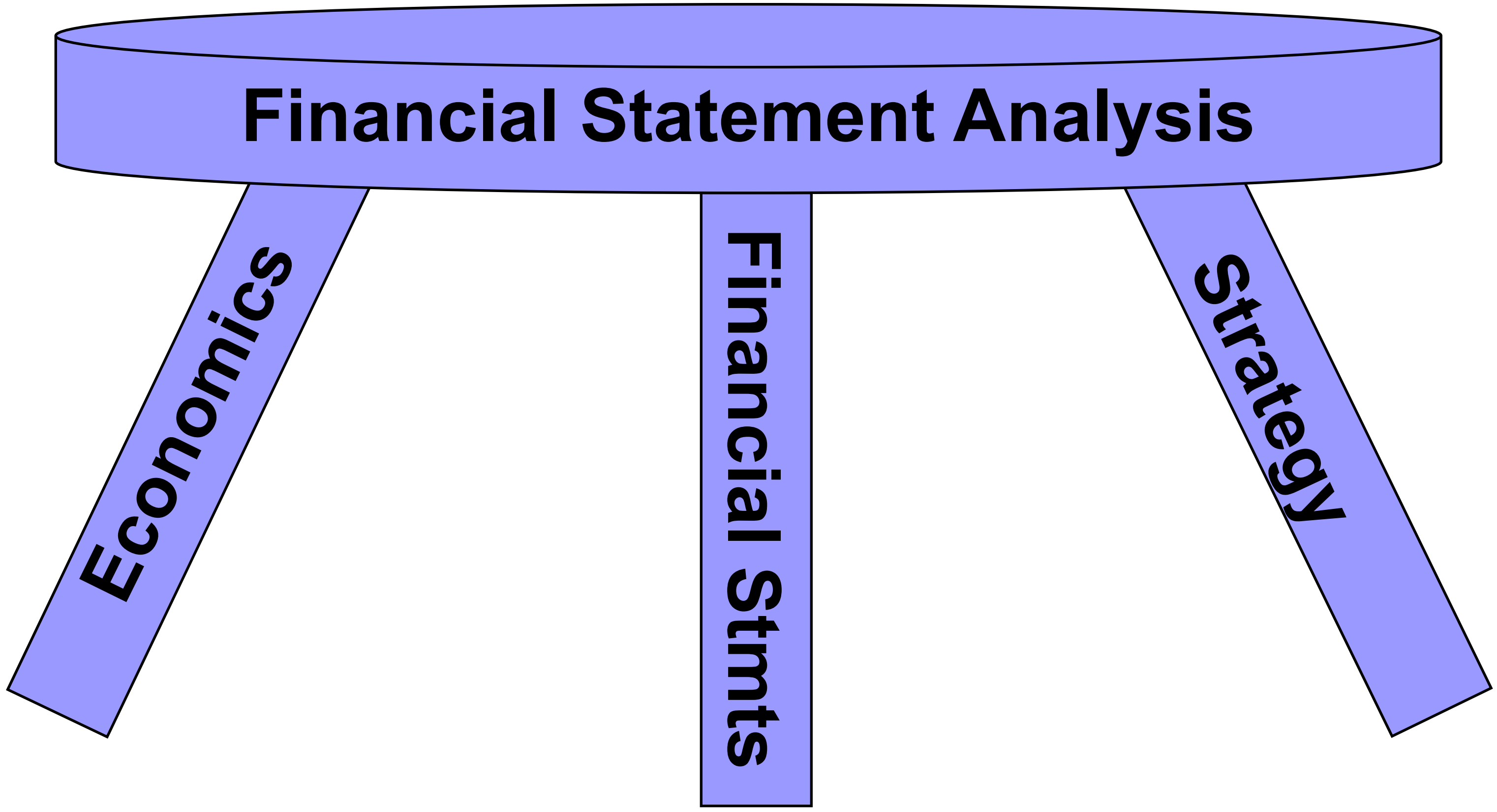
Building Blocks for Financial Statement Analysis



Effective Analysis Requires:

- Understanding the financial statements, including the accounting concepts and methods that underlie them and the quality of the information provided
- Understanding the economic characteristics of the industries in which a firm participates and the relation of those economic characteristics to the various financial statement ratios
- Understanding the strategies that a firm pursues to differentiate itself from competitors as a basis for evaluating the sustainability of a firm’s earnings and its risks

Six Steps to Effective Analysis of Financial Statements

- Identify industry economic characteristics
- Identify company strategies for competitive advantage
- Assess the quality of the firm's financial statements
- Analyze current profitability and risk
- Prepare forecasted statements
- Value the firm

Step 1: Identify the Industry Economic Characteristics

- **Value Chain Analysis for An Industry**
  - Sets forth the sequence or chain of activities involved in the creation, manufacture, and distribution of products and/or services
- **Porter's Five Forces Classification Framework**
  - Buyer power
  - Supplier power
  - Rivalry among existing firms
  - Threat of new entrants
  - Threat of substitutes

Step 1: Identify the Industry Economic Characteristics – Cont.

- Economic Attributes Framework
  - **Demand:** Price sensitivity, demand growth, etc.
  - **Supply:** Similar products, barriers to entry/exit
  - **Manufacturing:** Capital intensity/complexity
  - **Marketing:** Business vs consumer, steady demand
  - **Investing and Financing:** Short vs long-term assets, risks from obsolescence or use of debt, industry profitability and growth

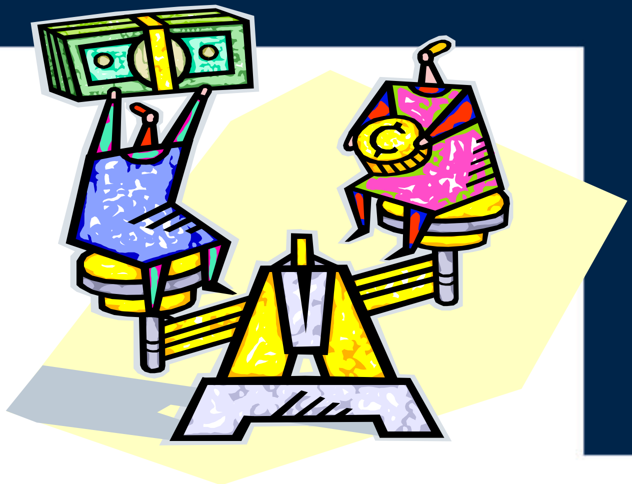
Step 2: Identify the Company Strategies

- **Nature of Product and/or Service**
  - Uniqueness of products, level of profit margins, creation of brand loyalty, control of costs
- **Degree of Integration within Value Chain**
  - Vertical integration, sourcing, franchising
- **Degree of Geographical Diversification**
  - Domestic vs global
- **Degree of Industry Diversification**
  - Single industry or cross-industry

Step 3: Assess the Quality of the Financial Statements

- Balance sheet
- Income statement
- Statement of cash flows
- GAAP
- FASB
- IFRS

Balance Sheet: Measuring Financial Position



- **Assets**
  - Recognition, Valuation and Classification
- **Liabilities**
  - Recognition, Valuation and Classification
- **Shareholder's Equity Valuation & Disclosure**
- **Assessing the quality of the balance sheet as a complete representation of economic position**

Income Statement: Measuring Operating Performance

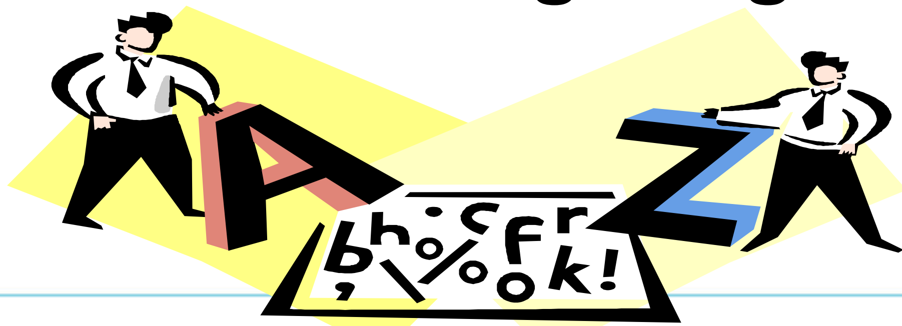
- Impact of accrual accounting
- Operating cycle of a business
- Classification/format within the income statement
  - Income from continuing operations
  - Income, gains and losses from discontinued ops
  - Extraordinary gains and losses
- Comprehensive income
- Assessing the quality of earnings as a complete representation of economic performance

Statement of Cash Flows

- **Rationale behind the statement**
  - Sources vs uses of funds
  - Shows where funds went, where they came from and how the overall liquidity of the firm was affected
- **Classification of cash flows**
  - Operating
  - Investing
  - Financing

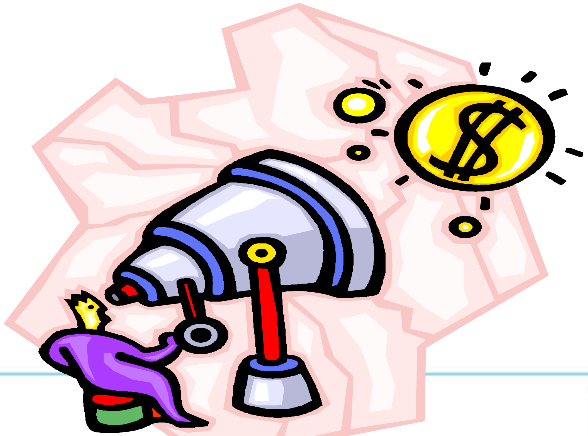
Other Financial Reporting Items

- Independent Auditor's Opinion and the Sarbanes-Oxley Act of 2002
- Summary of Financial Statements, Notes and Accountant's Opinion
- The issues of "earnings management" and other "accounting irregularities"



Other Considerations

- The Association Between Earnings and Share Prices
- Role of Financial Statement Analysis in an Efficient Capital Market
- Sources of Financial Statement Information



Step 4: Analyze Profitability and Risk

- **Tools of Profitability and Risk Analysis**
- **Common-Size Financial Statements**
- **Percentage Change Statements**
- **Financial Statement Ratios**
  - Liquidity
  - Asset Management
  - Profitability
  - Debt Management/Coverage
  - Risk/Market Valuation

Profitability Analysis Addresses Two Broad Questions

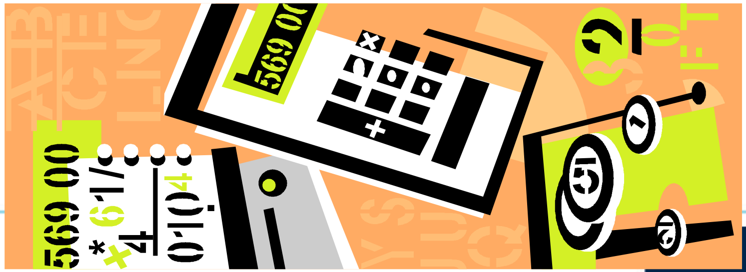
- How profitable are the operations of the firm relative to its assets – independent of how the firm finances those assets?
  - We use ROA (Return on Assets) to answer this question
- How profitable is the firm from the perspective of the equity shareholders?
  - We use ROE (Return on Equity) and EPS (Earnings per Share) to answer this question

Rate of Return on Assets

- **ROA: Different ways to get there**
  - Simple: ROA = NI/TA
  - Adjusted: ROA = (NI + Adjustments)/Avg TA
- **Typical Adjustments**
  - NI = Income from Continuing Operations
  - After-tax interest expense
    = (1 – Tax Rate)(Interest Expense)
  - Minority Interest in Earnings

Disaggregating ROA: The DuPont Approach

- ROA = Profit Margin x Total Assets Turnover
- Profit Margin
  - Represents a measure of the firm's ability to generate profits or the "quality" of the income statement
- Total Assets Turnover
  - Represents a measure of the efficiency of asset management or utilization

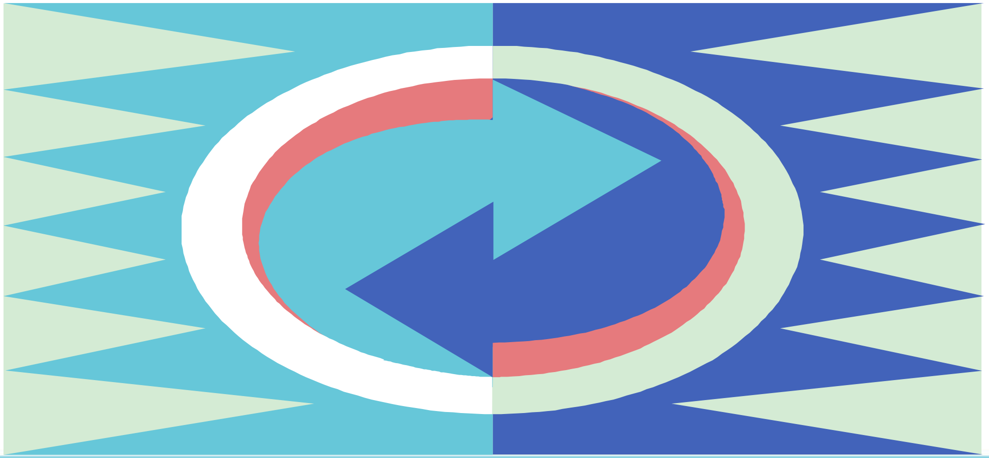


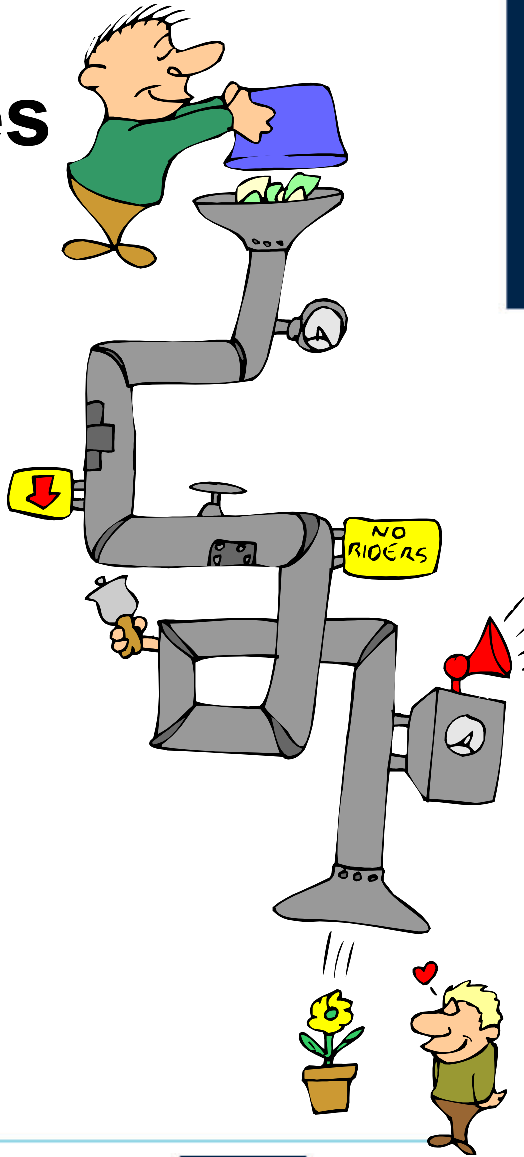
Economic and Strategic Factors in the Interpretation of ROA

- **Industry Factors in ROA**
  - ROA, Profit Margin and TATO can vary significantly from industry to industry
- **Differences or Changes in ROA**
  - Faulty assumptions
  - Unexpected changes in the environment
  - ROA may be an incomplete measure of economic return due to GAAP issues

Three Key Elements of Risk in Understanding ROA Differences

- Operating Leverage
- Cyclicality of Sales
- Product Life Cycle





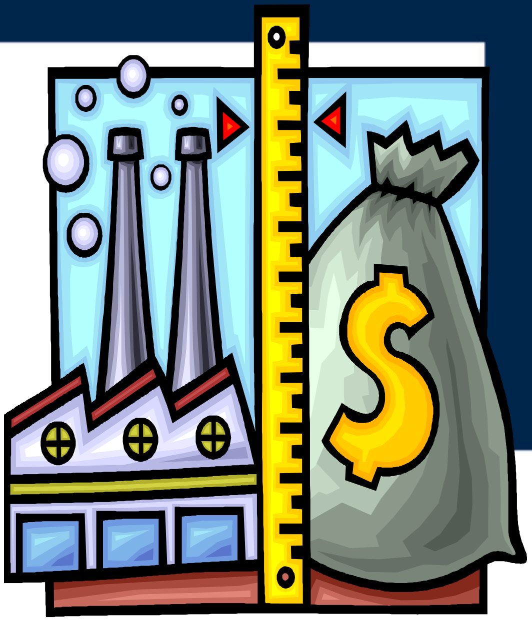
Economic Factors Affecting the Profit Margin/Assets Turnover Mix

	Capital Intensity	Competition	Likely Strategic Focus
A	High	Monopoly	Profit Margin
B	Medium	Oligopolistic or Monopolistic Competition	Either or Combo
C	Low	Pure Competition	Assets Turnover

Differences Due to Business Strategy

- **Product Differentiation**
  - Differentiate a product in such a way as to obtain market power over revenues and, therefore, profit margins (product quality, service, distribution, etc)
- **Low-cost Leadership**
  - Become the lowest-cost provider/producer, thereby enabling the firm to charge the lowest prices and to achieve higher volumes (economies of scale, production efficiencies, outsourcing, etc)

Analyzing the Profit Margin



- Different Sources of Revenue and/or Income
- Cost of Goods Sold
- Selling, General, and Admin. Expenses
- Depreciation and Amortization Expenses
- Interest Expense
- Income Taxes
- Summary of Profit Margin Analysis

Analyzing Total Assets Turnover

- **Accounts Receivable Turnover**
  - Too much versus too little
- **Inventory Turnover**
  - Too much versus too little
- **Total Asset Turnover**
  - Too much versus too little
- **Summary of Assets Turnover Analysis**

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Summary of ROA Analysis

ROA

- **Level 1:** ROA for the firm as a whole
- **Level 2:** Disaggregation of ROA into profit margin and total assets turnover
- **Level 3a:** Disaggregation of profit margin into expense ratios for various cost items
- **Level 3b:** Disaggregation of assets turnovers for individual assets
- **Level 4:** Analysis of profit margins and asset turnovers for the segments of the firm

Sometimes You Need to Adjust for Certain Industries

- **Analyzing Retailers**
  - Key resource is retail space

- **Analyzing Airlines**
  - Key resource is available seats and revenue passenger miles

- **Analyzing Advertising Firms**
  - Per-employee data may be more useful
- **Analyzing Technology-Based Firms**
  - Two big components of value: people and technology do not appear in the listed assets

Rate of Return on Common Equity (ROE)

ROE

- **ROA ignores the proportion of debt versus equity financing**
- **Return on Common Equity (ROE)**
  - Uses Net Income, with no adjustment for interest
  - Deducts any preferred stock dividends paid
- **ROE = (NI – PS Divs)/Avg Common SH Equity**
- **Note on Residual Income and EVA**

Disaggregating ROE

- **ROE** = Profit Margin x TATO x Equity Mult.

  = NI/Sales x Sales/TA x TA/SE

- **Profit Margin**
  - A measure of income statement quality
- **TATO**
  - A measure of asset management/utilization
- **Equity Multiplier**
  - A measure of the use of leverage (debt) in the firm's capital structure

Earnings Per Share (EPS)

- **Simple Capital Structure**
  - EPS = (NI – PS Divs)/Avg # of Shares Outstanding
- **Complex Capital Structure**

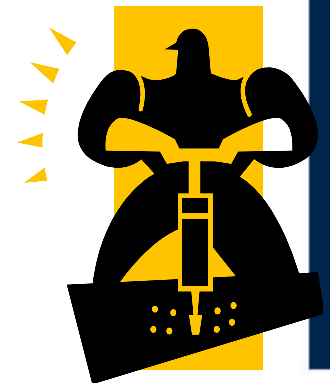
$$\text{Diluted EPS} = \frac{(\text{NI} - \text{PS Divs}) + \text{Adj for Dilutitive Shares}}{\text{Avg Shares} + \text{Avg Issuable Dilutitive Shrs}}$$

- **Usually Results From:**
  - Convertible securities or outstanding stock options and/or warrants

Interpreting Financial Statement Ratios

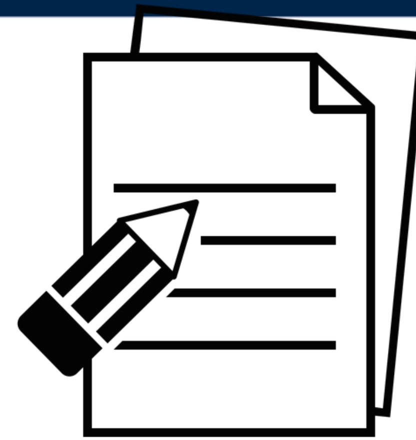
- **Trend Analysis**
  - Comparison with corresponding ratios of earlier periods
- **Comparative Analysis**
  - Comparison with ratios of other firms or industry averages

Issues in Using Industry Ratios



- Definition of industry
- Calculation of industry average
- Distribution of ratios around the mean
- Definition of financial statement ratios
- Sources of Industry Ratios
  - Moody's
  - Dun & Bradstreet
  - Robert Morris Associates (RMA)

The Last Steps



- **Step 5: Prepare Forecasted Financial Statements**
  - What are the assumptions for the future?
  - How this impact cash flows and funding?
- **Step 6: Value the Firm**
  - Classic Approaches: Dividends, Free Cash Flows or Multiples
  - Something New: Book Value of Equity and Earnings versus the Cost of Capital (similar to EVA)

Break to Work on Case Analysis

- Medical Technology Company (MTC)
- Electronic medical equipment manufacturer
- Significant recent expansion (25% per year growth)
- Profits are strong, but company always seems to be short on cash

Key Questions to Answer

1. Analyze the financial statements and ratios and assess the company's financial situation and viability as potential lending opportunity (banker's view) or equity investment (portfolio manager's view).
2. Why may companies with high growth rates have liquidity problems?
3. How does the fact that this company is a manufacturer affect its liquidity needs as it grows?
4. Are revenues, profits and cash flows all basically the same thing?
5. What liquidity problems does this firm have?
6. Are the liquidity problems related to the company's growth and capital structure?
7. What would you do to solve this company's problems?

MTC: Income Statement

Figures in $1,000	2013	2014	2015
Revenues	35,435	44,294	55,367
Cost of Goods Sold	21,071	25,690	31,006
Gross Profit	**14,364**	**18,603**	**24,362**
Gen Op Expenses	4,846	5,594	6,642
Management Salaries	2,964	3,531	3,833
Insurance	1,053	1,214	1,364
Depreciation	1,243	1,561	1,645
Misc. & Other Exp	993	1,138	1,340
Operating Profit	**3,265**	**5,566**	**9,538**
Interest Expense	2,122	3,825	6,642
Net Profit B/Tax	**1,143**	**1,741**	**2,895**
Income Tax (35%)	400	609	1,013
Net Profit After Tax	**743**	**1,132**	**1,882**

MTC: Balance Sheet – Assets

Figures in $1,000	2013	2014	2015
Cash & Equivalents	787	524	72
Accounts Receivable	3,531	5,001	6,983
Inventory	7,166	9,579	12,014
Prepaid Expenses	730	1,053	1,231
Total Current Assets	12,214	16,157	20,300
Fixed Assets (net)	21,351	35,618	51,845
Total Assets	**33,565**	**51,775**	**72,144**

MTC: Balance Sheet – Liab/Equity

Figures in $1,000	2013	2014	2015
Accounts Payable	1,750	2,029	2,281
Def. Taxes & Wages	733	1,021	1,325
Notes Payable	1,052	2,236	3,508
Current Liabilities	3,535	5,286	7,114
Long-Term Debt	13,477	22,804	33,463
Total Liabilities	17,012	28,090	40,577
Common Stock	15,000	21,000	27,000
Retained Earnings	1,553	2,685	4,567
Total Equity	16,553	23,685	31,567
Total Liab. & Equity	**33,565**	**51,775**	**72,144**

Stmt of Cash Flows - Operations

Figures in $1,000	2014	2015
Net Income	1,132	1,882
Adjustments to Reconcile NI to Cash		
Depreciation	1,561	1,645
Increase in Accounts Receivable	(1,470)	(1,983)
Increase in Inventories	(2,413)	(2,435)
Increase in Pre-Paid Expenses	(323)	(177)
Increase in Accounts Payable	279	252
Increase in Accrued Taxes/Wages	288	304
Net Cash from Operating Activities	**(947)**	**(511)**

Stmt of CF: Investing/Financing

Figures in $1,000	2014	2015
Cash Flows from Investing		
Capital Expenditures (Net)	(14,266)	(16,227)
Depreciation Adjustment	(1,561)	(1,645)
Net Cash from Investing	**(15,827)**	**(17,872)**
Cash Flows from Financing		
Increase in Notes Payable	1,184	1,272
Increase in Long-Term Debt	9,327	10,659
Increase in Common Stock	6,000	6,000
Net Cash from Financing	**16,511**	**17,931**
Net Change in Cash	**(263)**	**(452)**

Key Financial Ratios

	2013	2014	2015	Ind Avg
Current Ratio	3.46	3.06	2.85	**3.50**
Quick Ratio	1.22	1.05	0.99	**1.25**
Cash Flow to Total Debt	0.14	0.11	0.10	**0.15**
Times Interest Earned	1.54	1.46	1.44	**1.65**
LT Debt to Capital	44.9%	49.1%	51.5%	**45%**
Total Liab. to Tot Assets	50.7%	54.3%	56.2%	**50%**
Return on Sales	2.1%	2.6%	3.4%	**5.0%**
Total Asset Turnover	1.06	0.86	0.77	**0.90**
Return on Total Assets	2.2%	2.2%	2.6%	**4.5%**
Equity Multiplier	2.03	2.19	2.29	**1.25**
Return on Equity	4.5%	4.8%	6.0%	**5.6%**

Industry Averages are for similar sized companies in same industry as Medical Technology Company

A Few More Key Figures

	2013	2014	2015	Ind Avg
EVA (Econ Value Added)	-$0.881M	-$1.031M	-$0.304M	+2.000M
Days' Inventory	124	136	141	110
Days' Receivables	36	41	46	32
Days' Payables	30	29	27	33
Cash Conversion Cycle	130	148	161	109

Industry Averages are for similar sized companies in same industry as Medical Technology Company

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Basic Forecasting for MTC

- **8) Assuming a net profit margin of 4.0%, a total asset to sales ratio of 125% and a spontaneous liability to sales ratio of 6.5%, what would the need for additional funding be at sales increase levels of 10%, 15%, and 25%?**

Additional Funds Needed (AFN) Calculation

- As any firm grows, it runs the possibility of not being able to fund that growth using only internal funding
- The main sources for internal funding are retained earnings and increases in spontaneous liabilities (A/P & Accruals)
- Generally, the higher the growth rate, the greater the need for AFN

AFN Formula

- $AFN = (A_0^*/S_0)\Delta S - (L_0^*/S_0)\Delta S - M(S_1)(1 - DPO)$
- $(A_0^*/S_0)\Delta S$ = required increase in assets to support the new sales level
- $(L_0^*/S_0)\Delta S$ = the amount of spontaneous liabilities generated at the new sales level
- $M(S_1)(1 - DPO)$ = the amount of retained earnings generated at the new sales level
- A_0^*= Base Assets; S_0= Base Sales
- ΔS = Sales Increase; L_0^* = Base Spontaneous Liab.
- M = Net Profit Margin; S_1 = New Sales Level
- DPO = Dividend Payout Ratio

Determining Additional Funds Needed Using the AFN Equation

$$AFN = (A_0^*/S_0)\Delta S - (L_0^*/S_0)\Delta S - M(S_1)(1 - DPO)$$

$$AFN(25\%) = (1.25)(\$13.8) - (0.065)(\$13.8) - 0.04(\$69.2)(1.0) = \$8.9 \text{ million}$$

$$AFN(15\%) = (1.25)(\$8.3) - (0.065)(\$8.3) - 0.04(\$63.7)(1.0) = \$2.3 \text{ million}$$

$$AFN(10\%) = (1.25)(\$5.5) - (0.065)(\$5.5) - 0.04(\$60.9)(1.0) = -\ \$0.9 \text{ million}$$

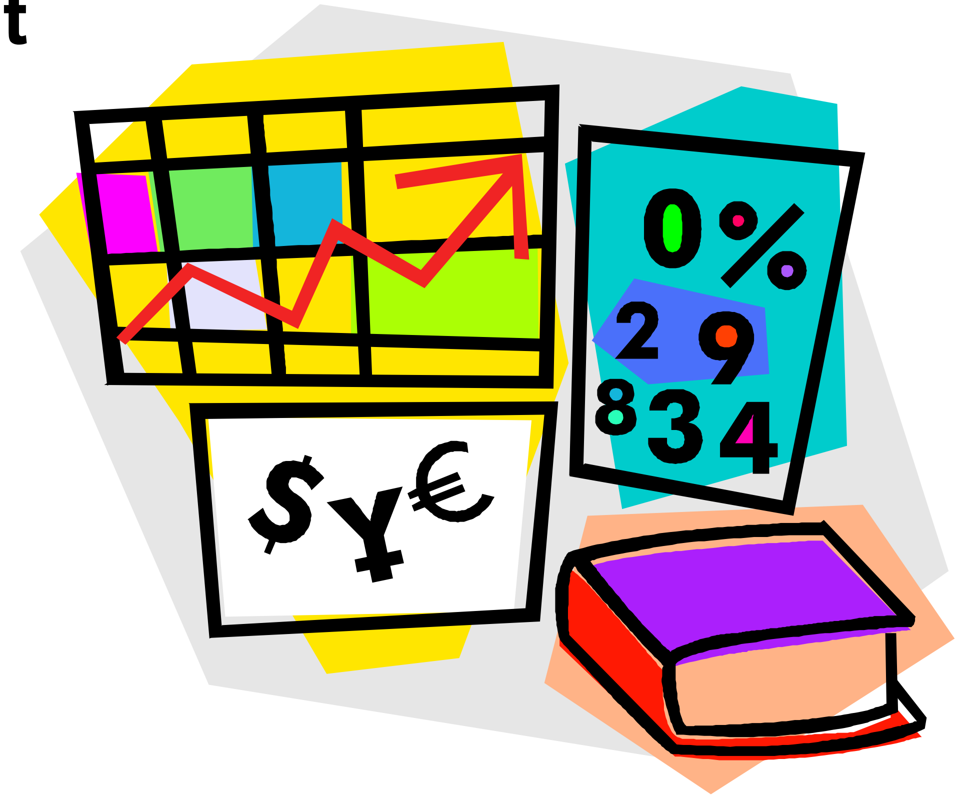
What does a negative AFN figure mean?

How would these changes affect the AFN?

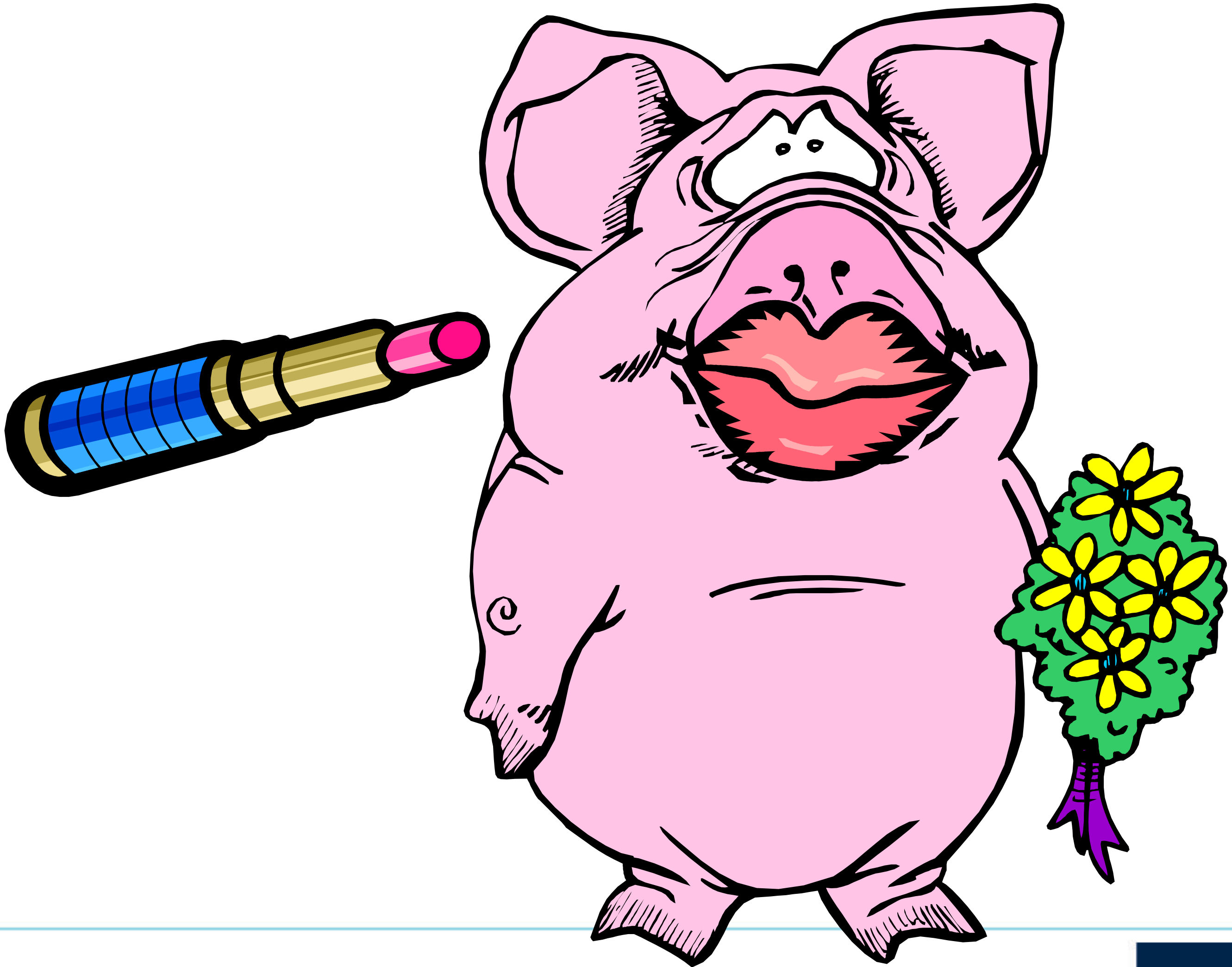
- **Higher dividend payout ratio?**
  - Increase AFN: Less retained earnings.
- **Higher profit margin?**
  - Decrease AFN: Higher profits, more retained earnings.
- **Higher capital intensity ratio?**
  - Increase AFN: Need more assets for a given level of sales.
- **Pay suppliers in 60 days, rather than 30 days?**
  - Decrease AFN: Trade creditors supply more capital (i.e., L_0^*/S_0 increases).

Common Labels for the Financial Numbers Game

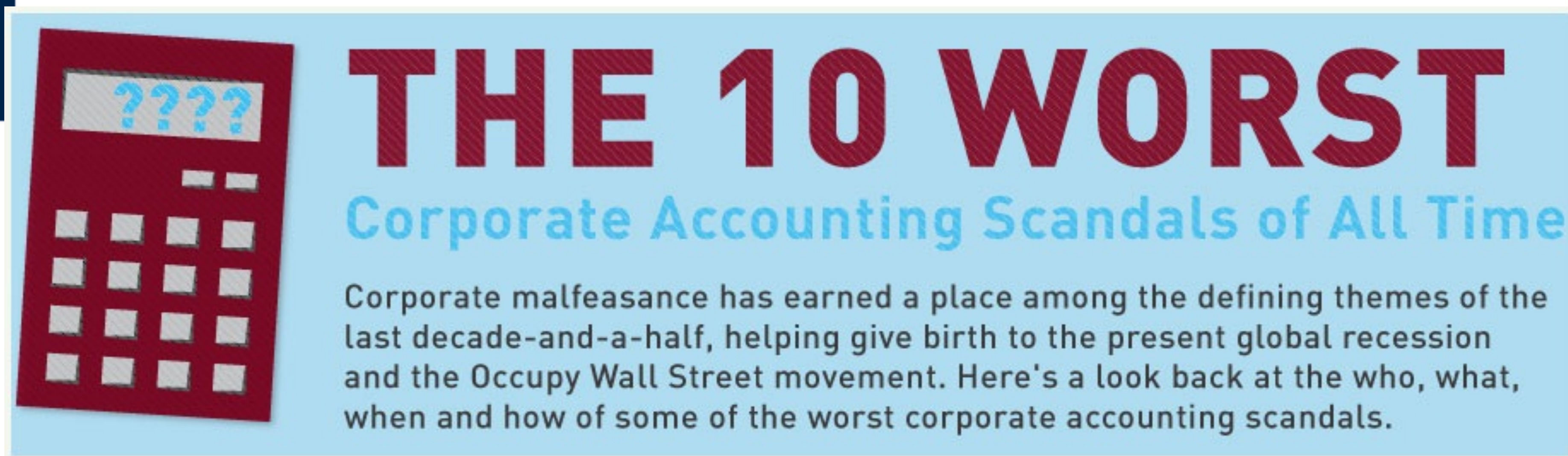
- Aggressive Accounting
- Earnings Management
- Income Smoothing
- Fraudulent Financial Reporting
- Creative Accounting Practices
- Window Dressing
- And my personal favorite . . . .



Putting Lipstick on the Pig



Accounting "Irregularities"



Provided by: Accounting-Degree.org

Link: http://www.accounting-degree.org/scandals/

WASTE MANAGEMENT SCANDAL (1998)

COMPANY

Houston-based, publicly traded waste management company

WHAT HAPPENED

Reported **$1.7 billion** in fake earnings.

MAIN PLAYERS

Founder/CEO/Chairman Dean L. Buntrock and top executives & Arthur Andersen Company (auditors)

HOW THEY DID IT

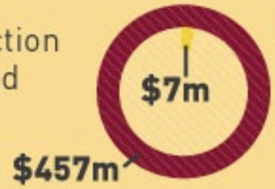
The company allegedly falsely increased the depreciation time length for their property, plant and equipment on the balance sheets.

HOW THEY GOT CAUGHT

A new CEO and management team went through the books.

PENALTIES

Settled a shareholder class-action suit for **$457 million;** SEC fined Arthur Andersen **$7 million.**



FUN FACT

After the scandal, the new CEO A. Maurice Meyers set up an anonymous company hotline where employees could report dishonest or improper behavior.

ENRON SCANDAL (2001)

COMPANY

Houston-based commodities, energy and service corporation

WHAT HAPPENED

Shareholders lost $74 billion, thousands of employees and investors lost their retirement accounts, and many employees lost their jobs.

MAIN PLAYERS

CEO Jeff Skilling and former CEO Ken Lay

HOW THEY DID IT

Kept huge debts off the balance sheets.

HOW THEY GOT CAUGHT

Turned in by internal whistle-blower Sherron Watkins; high stock prices fueled suspicions.

FUN FACT

Fortune Magazine named Enron "America's Most Innovative Company" for six years in a row prior to the scandal.

PENALTIES

Lay died before serving time; Skilling got **24 years in prison.** The company filed for bankruptcy. Arthur Andersen was found guilty of fudging Enron's accounts.

= 1 year

WORLDCOM SCANDAL (2002)

COMPANY

WORLDCOM

Telecommunications company; now MCI, Inc.

WHAT HAPPENED

Inflated assets by as much as $11 billion, leading to 30,000 lost jobs and $180 billion in losses for investors.

$11B INFLATED | 30,000 JOBS | $180B LOSSES

MAIN PLAYER

CEO Bernie Ebbers

HOW HE DID IT

Underreported line costs by capitalizing rather than expensing, and inflated revenues with fake accounting entries.

HOW HE GOT CAUGHT

WorldCom's internal auditing department uncovered **$3.8 billion** in fraud.

PENALTIES

CFO was fired, controller resigned, and the company filed for bankruptcy. Ebbers **sentenced to 25 years for fraud,** conspiracy and filing false documents with regulators.

25

FUN FACT

Following the scandal, Congress passed the Sarbanes-Oxley Act, introducing the most sweeping set of new business regulations since the 1930s.

TYCO SCANDAL (2002)

COMPANY

tyco

New Jersey-based blue-chip Swiss security systems company

WHAT HAPPENED

CEO & CFO stole $150 million and inflated company income by $500 million.

$150 m

MAIN PLAYERS

CEO Dennis Kozlowski and former CFO Mark Swartz

HOW THEY DID IT

Siphoned money through unapproved loans and fraud-ulent stock sales. Money was smuggled out of the company disguised as executive bonuses or benefits.

HOW THEY GOT CAUGHT

SEC and Manhattan D.A. investigations uncovered questionable accounting practices, including large loans made to Kozlowski that were then forgiven.

PENALTIES

Kozlowski and Swartz were sentenced to **8-25 years in prison.** A class-action lawsuit forced Tyco to pay **$2.92 billion** to investors.

8-25 YEARS

2.92 Bill.

FUN FACT

At the height of the scandal Kozlowski threw a **$2 million birthday party** for his wife on an island, complete with a Jimmy Buffett performance.

HEALTHSOUTH SCANDAL (2003)

COMPANY

HEALTHSOUTH

Largest publicly traded health care company in the U.S.

WHAT HAPPENED

Earnings numbers were allegedly **inflated $1.4 billion** to meet stockholder expectations.

MAIN PLAYER

CEO Richard Scrushy

HOW HE DID IT

Allegedly told underlings to make up numbers and transactions from 1996-2003.

HOW HE GOT CAUGHT

Sold $75 million in stock a day before the company posted a huge loss, triggering SEC suspicions.

PENALTIES

Scrushy was acquitted of all 36 counts of accounting fraud, but convicted of bribing the governor of Alabama, leading to a 7-year prison sentence.

FUN FACT

Scrushy now works as a motivational speaker and maintains his innocence.

NOT GUILTY?

FREDDIE MAC SCANDAL (2003)

Freddie Mac

COMPANY

Federally backed mortgage-financing giant

WHAT HAPPENED

$5 billion in earnings were misstated.

MAIN PLAYERS

President/COO David Glenn, Chairman/CEO Leland Brendsel, ex-CFO Vaughn Clarke, former Sr. VPs Robert Dean and Nazir Dossani

HOW THEY DID IT

Intentionally misstated and understated earnings.

HOW THEY GOT CAUGHT

An SEC investigation.

PENALTIES

$125 million in fines and the firing of Glenn, Clarke and Brendsel.

FUN FACT

1 year later, Fannie Mae, the other federally backed mortgage financing company, was caught in an equally stunning scandal.

Fannie Mae

AMERICAN INSURANCE GROUP SCANDAL (2005)

COMPANY

Multinational insurance corporation

WHAT HAPPENED

Massive accounting fraud to the tune of $3.9 billion was alleged, along with bid-rigging and stock price manipulation.

MAIN PLAYERS

CEO Hank Greenberg

HOW HE DID IT

Allegedly booked loans as revenue, steered clients to insurers with whom AIG had payoff agreements, and told traders to inflate stock prices.

HOW HE GOT CAUGHT

SEC regulator investigations, possibly tipped off by a whistle-blower.

PENALTIES

Settled with the SEC for $10 million in 2003 and $1.64 billion in 2006, with a Louisiana pension fund for $115 million, and with 3 Ohio pension funds for $725 million. Greenberg was fired, but has faced no criminal charges.

FUN FACT

After posting the largest quarterly corporate loss in history in 2008 ($61.7 billion) and getting bailed out with taxpayer dollars, AIG execs rewarded themselves with over $165 million in bonuses.

LEHMAN BROTHERS SCANDAL (2008)

COMPANY

LEHMAN BROTHERS

Global financial services firm

WHAT HAPPENED

Hid over **$50 billion** in loans disguised as sales.

$50 b.

MAIN PLAYERS

Lehman executives & the company's auditors, Ernst & Young

HOW THEY DID IT

$50 BILLION

Allegedly sold toxic assets to Cayman Island banks with the understanding that they would be bought back eventually. Created the impression Lehman had $50 billion more cash and $50 billion less in toxic assets than it really did.

HOW THEY GOT CAUGHT

Went bankrupt.

PENALTIES

Forced into the largest bankruptcy in U.S. history. SEC didn't prosecute due to lack of evidence.

FUN FACT

In 2007 Lehman Brothers was ranked the #1 "Most Admired Securities Firm" by Fortune Magazine.

BERNIE MADOFF SCANDAL (2008)

COMPANY

Bernard L. Madoff Investment Securities LLC, a Wall Street investment firm founded by Madoff

WHAT HAPPENED

Tricked investors out of **$64.8 billion** through the largest Ponzi scheme ever.

$65 b.

MAIN PLAYERS

Bernie Madoff, his accountant, David Friehling, and Frank DiPascalli

HOW THEY DID IT

Investors were paid returns out of their own money or that of other investors rather than profits.

HOW THEY GOT CAUGHT

Madoff told his sons about his scheme; they reported him to the SEC. He was arrested the next day.

PENALTIES

150 years in prison for Madoff + $170 billion restitution. Prison time for Friehling and DiPascalli.

FUN FACT

Madoff's fraud was revealed just months after the 2008 U.S. financial collapse.

SAYTAM SCANDAL (2009)

COMPANY

Indian IT services and back-office accounting firm

Satyam

WHAT HAPPENED

Falsely boosted revenue by **$1.5 billion.**

MAIN PLAYER

Founder/Chairman Ramalinga Raju

HOW HE DID IT

Falsified revenues, margins and cash balances to the tune of 50 billion rupees.

HOW HE GOT CAUGHT

Admitted the fraud in a letter to the company's board of directors.

PENALTIES

Raju and his brother charged with breach of trust, conspiracy, cheating and falsification of records. Released after the Central Bureau of Investigation failed to file charges on time.

FUN FACT

In 2011 Ramalinga Raju's wife published a book of his existentialist, free-verse poetry.

Discussion Question

What are the four primary reasons for using creative accounting?

Answer:

- Share price effects
- Borrowing cost effects
- Bonus plan effects
- Political cost effects

Share Price Effects

- Higher share prices
- Reduced share price volatility
- Increased corporate valuation
- Lower cost of equity capital
- Increased value of stock options

Borrowing Cost Effects

- Improved credit quality
- Higher debt rating
- Lower borrowing costs
- Less stringent financial covenants
- Meeting restrictive covenants

Other Effects

- Bonus Plan Effects
  - Increased profit based bonuses
- Political Cost Effects
  - Decreased regulation
  - Avoidance of higher taxes

Classification of Creative Accounting Practices

- Recognizing premature or fictitious revenue
- Aggressive capitalization and extended amortization policies
- Misreported assets and liabilities
- Getting creative with the income statement
- Problems with cash-flow reporting

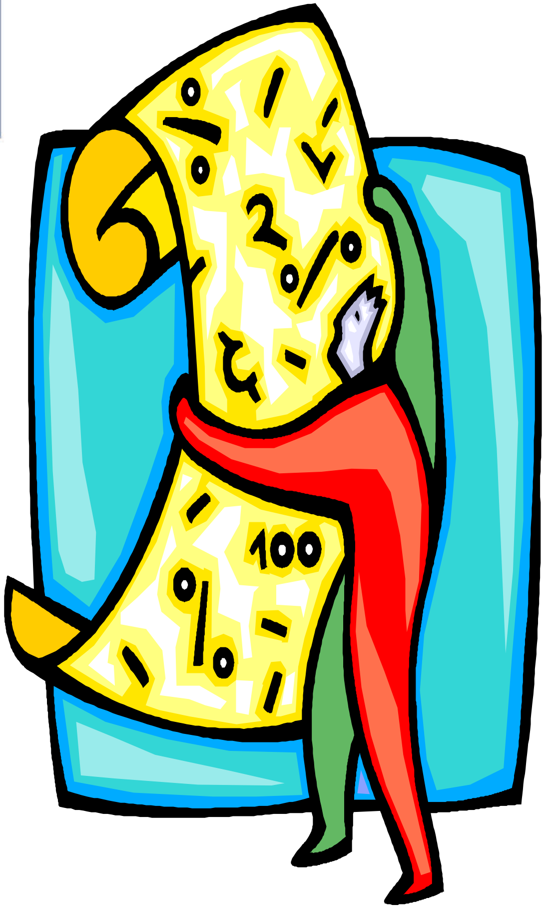
How the Financial Numbers Game is Played

- Actively altering reported financial results or reported financial position in some desired amount or direction
- How is this alteration achieved?
  - Accounting policy choice
  - Accounting policy application
  - Outright fraudulent financial reporting

More on Accounting Policy Choice and Application

- Flexibility in Financial Reporting
  - Inventory cost determination
  - Software revenue recognition
  - Goodwill amortization periods
- Aggressive Application of Accounting Principles
  - Sales with liberal return policies
  - Restructuring costs
  - Depreciation tricks

The Special Case of Earnings Management



- The flexibility of GAAP is employed to guide reported earnings toward a predetermined target of sustained, long-term growth
- Some examples
  - Storing earnings for future years
  - Taking the “big bath”
  - Special charges
  - Purchased in-process research and development

More on Earnings Management

- Why does it occur?
  - To meet a consensus forecast number
  - To earn incentive compensation
  - To avoid potential political activity
  - To meet debt covenant requirements
  - To reduce earnings volatility
  - To maximize IPO proceeds
  - To blame the previous management
  - To adjust for past restructuring charges

Some Earnings Management Quotes

- ***"While the problem of earnings management is not new, it has swelled in a market that is unforgiving of companies that miss their estimates"***
  - **Arthur Levitt, SEC Chairman, 9/28/98**
- ***"We need another two cents to make our EPS number, I've found a penny; it's up to someone else to find the other."***
  - **Anonymous CEO of Mid-size company**

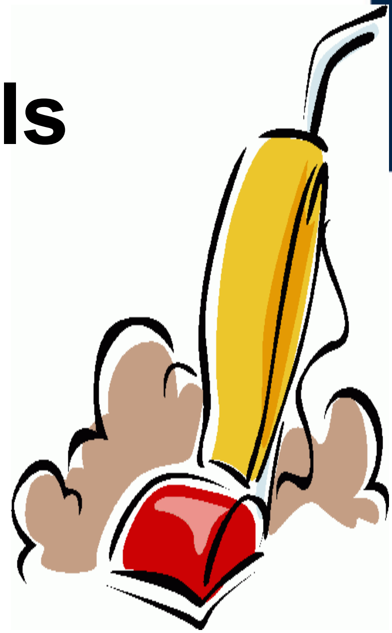
Other Accounting Issues

- Mistakes Happen!!
  - Sometimes there are legitimate accounting errors or misstatements – these should be announced and cleared as fast as possible
- Creative Classifications within Financial Statements
  - Classifying non-recurring income as recurring
  - Classification of investment items versus financial items in the cash flow statement

Crossing the Line!!

- What Really Constitutes Fraudulent Financial Reporting?
  - What's OK for small numbers may be fraudulent for big numbers
  - There typically has to be an element of intent to defraud
  - We may only realize fraud in hindsight
  - SEC or courts need to determine if fraud has occurred

Why do Companies "Clean up Their Act"? – Catalysts for Change



- Declining economic fundamentals
- Change in management
- Change in auditor's position toward policies used
- Change in auditors
- Change in accounting standards (FASB)
- Investigation by regulatory body (SEC)

What is the Role of SEC?

“Therefore, I am calling for immediate and coordinated action: technical rule changes . . . to improve the transparency of financial statements; enhanced oversight of the financial reporting process . . . And nothing less than a fundamental cultural change on the part of corporate management as well as the whole financial community …”

Statement by Arthur Levitt, Chairman, SEC, Sept. 28, 1998

Five Creative Accounting Practices According to SEC

- Big Bath Charges
- Creative Acquisition Accounting
- Cookie Jar Reserves
- Materiality
- Revenue Recognition

Big Bath Changes

- Companies use large restructuring charges to clean up their balance sheets
- The temptation is to overstate these charges because investors will look on them as a one-time event
- Later this “cushioning” can be miraculously transformed into income if needed

Creative Acquisition Accounting

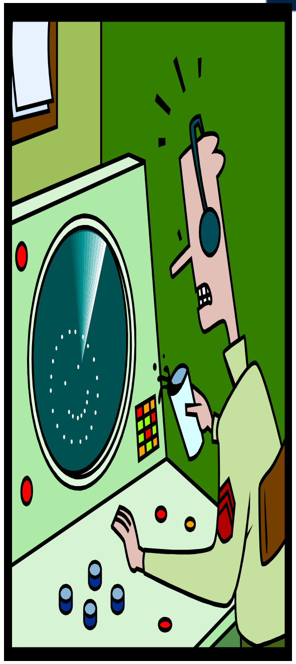
- This is the use of "merger magic"
- Overvaluation of purchased-in-process research and development
  - This is then written off as a one-time charge, removing any future earnings drag
- Another tactic is to create large liabilities for future operating expenses
  - These often include a portion of normal future operating expenses

Cookie Jar Reserves

- Using unrealistic assumptions to estimate liabilities
- The practice entails reducing earnings during good years by stashing amounts in cookie jars, then reaching into the jars when needed during bad times
  - Sales returns, loan losses, and warranty costs

Materiality

- Materiality is supposed to provide flexibility in financial reporting
- This can be abused by managers keeping some numbers or adjustments "below the radar"
- But even immaterial items can sometimes add the penny or two needed to keep in line with analysts' forecasts



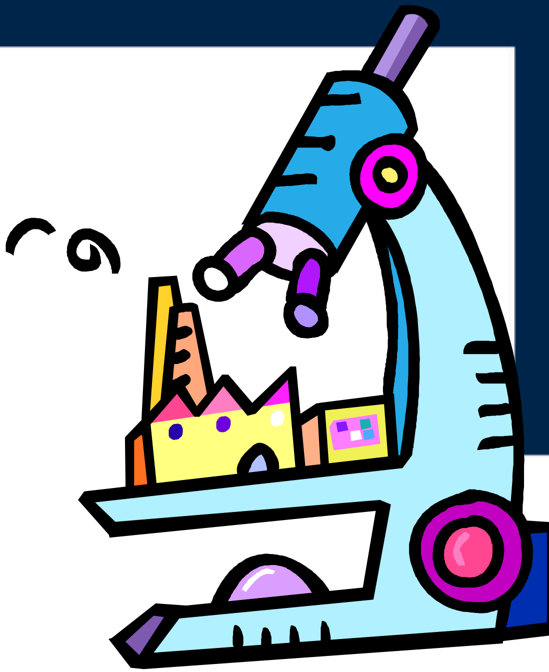
Revenue Recognition

- GAAP offers a wide degree of latitude in revenue recognition
- But as a general rule it is improper to recognize revenue:
  - Before a sale is complete
  - Before the product is delivered to the customer
  - At a time when the customer still has options for "terminate, void or delay the sale"

SEC Action Plan to Improve the Accounting Framework

- Better disclosure of changes to accounting assumptions
- Clarified accounting rules for acquisitions
- Guidance on determining materiality
- Interpretive guidelines for revenue recognition
- Prompt resolution of FASB’s definitions of liabilities
- Targeted reviews of restructuring, major write-offs or other earnings management practices

Other SEC Guidelines

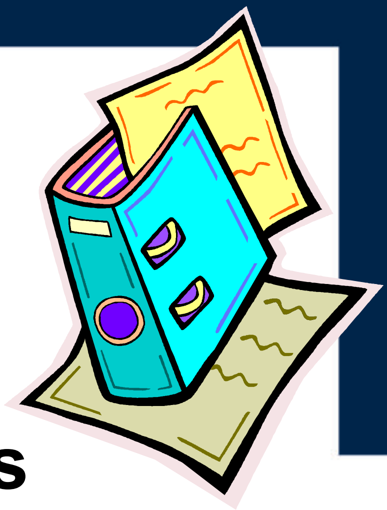


- Enhancing Outside Auditing
  - Call to auditors to review the audits are performed and to determine changes needed
- Strengthening the Audit Committee Process
  - Blue-ribbon panel to develop recommendations
- Pursuing Cultural Change
  - Reward open and transparent reporting and punish creative accounting practices

But This Action Plan Did Not Prevent the Following

- Rite Aid
  - Overstating ending inventory values to reduce cost of goods sold
- WorldCom
  - Improper acquisition accounting
  - Improper capitalization of expenses
- Enron
  - Abuse of mark-to-market accounting
  - Abuse of off-balance sheet accounting
  - Misclassification of “prepays” as sales

More Recent "Solutions"



- Sarbanes-Oxley (2002)
- FASB – updated accounting standards
- Public Company Accounting Oversight Board (PCAOB) has developed an extensive inspection program
- NYSE and NASDAQ have added new requirements for member companies
- DOJ has made corporate fraud a "priority"
- Business schools are placing more emphasis on business ethics and corporate governance

Fictitious Reporting Methods
Improper Revenue Recognition

- **Bill and Hold Sales:** ***Sunbeam***
- **Holding Books Open after Close of Reporting Period:** ***Sensormatic***
- **Multiple Element Contracts or Bundled Contracts:** ***Xerox***
- **Fictitious Revenue:** ***CUC/Cendant***
- **Improper Valuation of Revenue:** ***Insignia***

Fictitious Reporting Methods
Improper Expense Recognition

- Improper Capitalization of Expenses or Losses: *Worldcom*
- Improper Deferral of Expenses or Loses: *Livent*
- Failure to Record Expenses or Losses: *Livent*
- Overstating Ending Inventory Values: *Rite Aid*

Fictitious Reporting Methods
Improper Expense Recognition – Cont.

- Understating Reserves for Bad Debt and Loan Losses: *Allegheny*
- Failure to Record Asset Impairments: *Lockheed*
- Improper Use of Restructuring and Other Liability Reserves: *Sunbeam*

Fictitious Reporting Methods
Improper Accounting in Connection with Business Combinations

- **Improper Use of Merger Reserves (Overstated reserves for later use to boost earnings):** ***Worldcom***
- **Improper Asset Valuation:** ***Worldcom***

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Fictitious Reporting Methods
Miscellaneous Schemes

- **Improper Use of Off-Balance Sheet Arrangements (Misuse of SPEs): *Enron***
- **Inadequate Disclosures in MD&A and Elsewhere in Issuer Filings: *Edison***
- **Failure to Disclose Related Party Transactions: *Adelphia***

Fictitious Reporting Methods
Miscellaneous Schemes – Cont.

- Improper Use of Non-GAAP Financial Measures: ***Adelphia***
- Improper Accounting for Foreign Payments in Violation of the Foreign Corrupt Practices Act: ***Bellsouth***
- Improper Accounting for Roundtrip Transactions: ***Krispy Kreme***

Questions and Answers???

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