

Financial Reporting and Analysis

What is Financial Reporting?

Purpose of Reading Financial Statements

1. Investing
2. Competitors (Context, Benchmark, Trends)
3. Hard to do but Worth it
4. Background to the Business (People, How the business is run)

Earnings

$$Value_{Firm} = Earnings * Multiple$$

- Earnings: Cross-selling; Reducing OH; Income (NET/EBIT/EBITDA)
- Multiple: Cost of Capital; Growth Potential; Reduce Risk/Increase Trust (Beta)

Earnings Quality

Concept of Earnings Quality

- Conservative vs Liberal Accounting
- Affect on Business Decision
 - Advertising/Promotions
 - Cut back on maintenance
 - Consistent Accounting Policies
- Numbers are Trustworthy (Investing)
 - Right/Predictive
 - Correlated with Cashflows

Misrepresentation of Earnings

- Red Flags
 - Cookie Jar reserve
 - Premature rev rec
 - Large 1-time items
- Pressure to meet benchmark
- Impact (Lower Trust; Increased Cost of Capital)

SEC Focuses Earnings Manipulation

- Misused materiality
- What was the intent?
- SEC fine (wanted to use them as an example)

The Numbers Game

- Creative acquisition accounting
- Materiality misuse (Big Bash)
- Changing assets lives

Earnings Management

SEC Whistleblower Program Expands

1. Incentivizes individuals to report violations
2. 10% - 30% of the reported amount
3. Prohibit retaliation, and employers can not use confidentiality as a reason
4. Adjust how the large awards are made to make them known within 120 days

Business is Slowing. Companies Juicing Profits

1. Changing Depreciation Expenses

- Useful life of Asset (Extending the useful life of an asset can change depreciation expense)
- Salvage Value
- Can theoretically change based on material values
- Depreciation (Accelerated versus straight-line, Declining Balance method, Units of Production Method)

2. Non-GAAP Measures

- Compliance is expensive (some companies opt to pay the fee rather than hire more accountants to be compliant)
- Allows investors to see through the eyes of management
- Have to disclose and reconcile their numbers with GAAP

Accruals and Cash Flows

- What are accruals and why are they used? Do companies have a choice?
 - Revenue or expenses incurred, but not yet paid
 - Timing/matching revenues and related expenses
 - Required by GAAP, but some flexibility in estimates
- What is the difference between Profit (aka Net Income or Earnings) and Cash Flows?
 - **Profit** = Revenue after cash and accrued expenses
 - **Cash Flows** = Inflow and outflow of actual cash
- What are some of the considerations when determining the Price/Earnings ratio (P/E), and how can it vary between analysts? Which time period for earnings and price?
- What impact do accruals have on the value of a company?
 - They allow a fully-loaded financial results picture - uses estimates
 - Risks - Volatility due to estimates and potentially managed earnings
- What is CECL and how does it affect reported profit/earnings?
 - New accounting rule - loan loss reserves for expected future credit losses
 - Current Expected Credit Losses

Efficient Market Hypothesis

The efficient market hypothesis (EMH) or theory states that share prices reflect all the information available. According to the EMH, stocks trade at their fair market value on exchanges. Proponents of EMH posit that investors benefit from investing in a low-cost, passive portfolio.

The Accrual Anomaly

- Cash Flows are more persistent in predicting future earnings performance than Accruals
- Stocks perform as if investors “fixate” on Reported Earnings, without distinguishing between cash flows and accruals
- Companies with higher relative accrual rates affecting earnings tend to underperform and vice versa (companies with lower accrual rates tend to overperform)

Disclosures

Stock-based Compensation

Reasons for Stock Comp

- Align Sr Executives
- Favorable Tax Treatment
- Option-based
- Non-cash
- Shared Ownership
- Align to Performance

Different Types of Stock Compensation

- **RSUs (Restricted Stock Units):** Shares of stock granted, Vesting over time
- **Stock Options:** Future right to purchase stock with a fixed exercise price
- **Other:**
 - ESPPs (Employee Stock Purchase Plans)
 - SAR (Stock Appreciation Rights)/Phantom Shares

GAAP Accounting

1. **At Grant:** Disclosure Only
2. **Over Vesting Period:** Expense the grant-date fair value of award over the vesting/service period (Stock Options fair value determined by Black-Scholes model); Deferred tax asset-DTA (tax deductible when vested or exercised)
3. **At Vesting or Exercise:** Record issuance/purchase/sale of stock; Tax deduction true-up (release DTA)
4. **Cash Flow Statement:** Deferred tax impact in Operating section; Cash paid/received for stock (if any) in Financing section

Challenges

- **Value-cost “wedge”**
- **Avoiding excessive compensation**
- Aligning risk-taking incentives/Gaming
- Mismatched time horizons
- Leverage-fragility tradeoff

Insider Trading and Stock Repurchase Plans (10b5-1)

1. Cooling Off Period
2. Company Disclosure
3. Plan Limit (1 at a time)
4. Cert of Good Faith

Disclosure Choice

Disclosures in the 10-K/10-Q filing

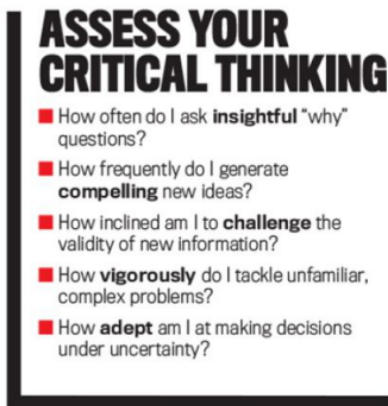
- Income Statement
- Segment Footnote to Financial Statements
- Management Discussion and Analysis
- Non-GAAP Financial Measures

Management Forecasts / Non-GAAP Earnings

Non-GAAP disclosures in the 10-K/10-Q filing

- How are they presented?
- What is the stated/implied purpose of their non-GAAP measures?
- How do the non-GAAP disclosures compare to competitors?

Analysis



Definition of Critical Thinking

- Curiosity means wanting to learn
- Creativity means viewing information from multiple perspectives
- Skepticism means maintaining a "trust but verify" mind-set
- Analysis means systematically examining and evaluating evidence
- Logic means reaching well-founded conclusions

What applications does data analytics have in accounting-related settings?

- Internal and External Auditing
- Personal Financial Planning
- Budgeting and Forecasting
- Sales and Marketing

Firm Performance Analysis

Types of Data Analytics

Descriptive analytics — answers the question, "what is?"

- What happened?
- Observe historical information
- Contextual data
- Trend analysis
- Comparisons to peers
- Financial statements and footnotes

Diagnostic analytics — answers the question, "why?"

- Trend analysis of corroborative evidence
- Drill-down analysis to component parts
- Regression analysis
- Pattern analysis
- Rate and volume analysis
- MD&A

Determinants of "Sticky Costs" (Different Types of Costs)

- Variable/Fixed/Sunk Costs
- Capital/Investment Costs
- Discretionary/Opportunity Costs

Predictive analytics — answers the question, "what will happen?"

- Forecasts, budgets
- Driver-based
- Monte-Carlo/Black-Scholes Models
- Financial Planning and Analysis Department

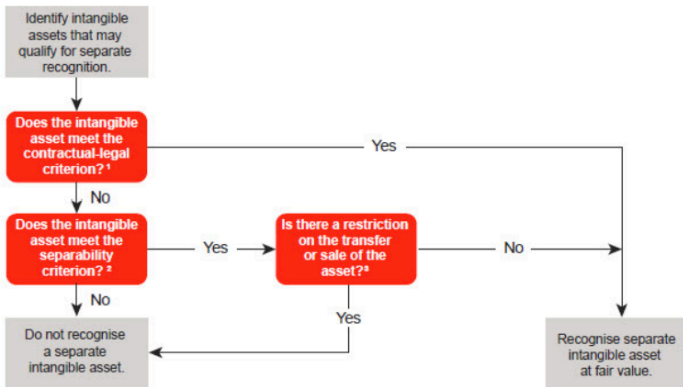
Prescriptive analytics — answers the question, "what should happen?"

- Goal/Benchmark
- Data analysis to prescribe an action
- Standard costs (how much "should" it cost)
- Goal seek
- Cost/Benefit Analysis
- Hiring/headcount planning
- Emergency planning

Sticky Costs: Asymmetric cost behavior comes from deliberate resource commitment decisions by managers.

Intangible Assets

What is Intangible Assets



Other Definitions

- Tangible assets = PP&E, Fixed Assets, Cash (financial assets); physical that has future, inventory, accounts receivable, etc. (does not include intangible assets)
- Tangible net assets = Tangible assets (total asset - intangibles) less liabilities
- Goodwill = Amount paid above the value of net identifiable assets (in an acquisition); synergies/future value
- Other Types of Intangible Assets = Brand, Customer List, Patents/Copyrights/Trademarks

ESG Reporting

Companies use ESG (Environmental, Social, and Governance) reporting to demonstrate they are meeting goals, show their projects are genuine (not just greenwashing), and position themselves to attract investors and financing.

The Three Pillars of ESG

- **Environmental (E):** Focuses on how a company acts as a steward of the natural environment
- **Social (S):** Focuses on how a company nurtures and impacts its people and the wider community
- **Governance (G):** Focuses on the leadership, internal controls, policies, and procedures an organization uses to stay ahead of corruption and ensure its investments remain sustainable in the future

Value Investing

- Value Investing = Buying stocks that are undervalued, compared to intrinsic value(should be with). Determined by the quality earnings and multiples of its earnings. Changes from industry to industry. Not looking at current earnings but growth potential. Price to book & price to earnings. Look at the companies own history to determine the value of the company. Buying into stocks you think industry is undervalued
- Growth Investing = Buying based on growth potential. Determining based on history and other industry to determine whether you should see potential in a stock. Having hope in a company when investing.
- Active v. Passive management = When it comes to mutual funds, the financial advisor will make decisions on what to invest, and follow the S&P 500 on other companies. Picking an index, not needing a analyst, pick some ratios, and automatically assuming requiring less analysis which means less fees. Active are people who think they can pick stocks better than others, more expensive than passive. Changing with AI, because it is managing certain funds (It is doing worse than human predictions.) No active portfolios have outperformed the S&P 500 predictions.
- Index funds (e.g. FTSE Russell, Value, Growth, S&P 500) = Are you pick an index and pick a fund that matches that index, weather S&P 500, New York Stock Exchange. Working under the idea that the index will do better
- ETF = Exchange traded Fund that are zero fees(Cheap).
- Retained earnings = Cumulative net income you don't pay as a dividend that doesn't get added to the balance sheet. Total equity is made of retained earnings, common stock, and APIC (when people buy your stock on the market).
 - $Retained\ Earnings_{Old} - Net\ Income - Dividends = Retained\ Earnings_{New}$
- Market Cap = Matters because smaller cap companies have potential better growth with also more risk or volatility, while Large cap is the opposite. Invest in what amount of risk you are willing to take. (Large-Cap = Above 10 billion; Mid-Cap = 2-10 Billion; Small-Cap = Less than 2 Billion)

Textual Analysis

Research methodology that involves examining the language, symbols, content, structure, and context of a text to uncover its deeper meanings, patterns, and underlying messages. It's broadly applied across the humanities, social sciences, and increasingly, in computational fields.

Which types of textual analysis are relevant to your business analysis?

Application-Focused Methods

- Contract Analysis
- MD&A and Footnote Review
- Fraud Detection in Journal Entries
- Monitoring Social Media Sentiment

Quantitative Methods

- Word Count/Word Frequency
- Collocation/Concordance
- Readability/Fog Index
- Word Trees

Qualitative Methods

- Sentiment Analysis
- Tone/Emotion Detection
- Linguistic Tracing
- Stylometric Analysis

What places can you find relevant text to analyze?

Internal Company Documents

- Contracts/Lease Agreements
- Journal Entry Descriptions
- Emails/Memos
- Audit Reports/Comments

Market and External Commentary

- News Articles
- Financial Press
- Social Media
- Customer Feedback

Financial and Regulatory Sources

- SEC Filings (10-K, 10-Q)
- Annual Reports to Shareholders
- Earnings Calls/Transcripts

Corporate Governance

- Safeguards to evaluate potential board members
- Monitor shareowners with the Schedule 13D/F
- Board of Directors: Audit, Compensation, Nominating