



ADVANCED ACCOUNTING

AY 2022/2023

Financial Statement Analysis

Primary Purpose:

Advance the understanding of how to use financial information to analyze firms.

Learning Objectives:

1. Explain the purpose of financial statement analysis.
2. Understand the relationship between financial statement numbers and use ratios in analyzing and describing a company's performance.
3. Use common-size financial statements to perform comparison of financial statements across years and between companies.
4. Understand the DuPont framework and how return on equity can be decomposed into its profitability, efficiency and leverage components.
5. Use cash flow information to evaluate cash flow ratios.
6. Understand the limitations of financial statement analysis.

Lesson #1

The purpose of Financial Statement Analysis

Why are financial statements useful?

Examples:

- Acquisition pricing.
- Capital budgeting.
- Capital structure.
- Growth rate.

Why are financial statements useful?

- ✓ Evaluating an equity investment for inclusion in a portfolio.
- ✓ Evaluating a merger or acquisition candidate.
- ✓ Evaluating a subsidiary or operating division of a parent company.
- ✓ Deciding whether to make a venture capital or other private equity investment.
- ✓ Determining the creditworthiness of a company in order to decide whether to extend a loan to the company and if so, what terms to offer.
- ✓ Extending credit to a customer.
- ✓ Examining compliance with debt covenants or other contractual arrangements.
- ✓ Assigning a debt rating to a company or bond issue.
- ✓ Valuing a security for making an investment recommendation to others.
- ✓ Forecasting future net income and cash flow.

«The primary goal in financial reporting is the dissemination of financial statements that accurately measure the profitability and financial condition of a company»

Howard Schilit

Is it true?

Two distinct approaches



Financial analysis as a prescribed routine, standard ratios, inflexible definitions.



Financial analysis in a proactive approach: the relentless pursuit of accurate financial profiles of the entities being analyzed.

The financial reporting system is not perfect.

- Economic events and accounting entries do not correspond precisely: they diverge across the dimensions of timing, recognition and measurement.
- Financial analysis needs to consider the variations in accounting treatment among countries.

Class of users

«Financial reporting should provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions.

The information should be comprehensible to those who have a reasonable understating of business and economic activities and are willing to study the information with reasonable diligence»

(SFAC 1).

Class of users

1. Equity investors;
2. Creditors;
3. Managers;
4. Merger and Acquisition Analysts;
5. External Auditors;
6. Directors;
7. Government, regulatory bodies, tax authorities.
8. Employees and Unions;
9. Lawyers;
10. The general public and special interest groups, labor unions, and consumer groups.

Colgate

Something to smile about?



Colgate has been creating smiles the world over for the past 200 years. However, the smiles are not limited to users of its immensely popular toothpaste. Colgate's financial and stock price performance during the past decade has given plenty for its shareholders to smile about. Stock price appreciated 60% over this period, generating average returns for Colgate's stockholders to the tune of about 7% many times higher than that on the S&P 500 over a comparable period. Earnings have almost doubled during the past decade, which has witnessed the worst economic times since the Great Depression of the 1930s.

One of the world's oldest corporations, Colgate today is a truly global company, with a presence in almost 200 countries and sales revenues of above \$17 billion. Its

brand name—most famously associated with its toothpaste—is one of the oldest and best recognized brands in the world. In fact, the brand has been so successful that “Colgate” has become a generic word for toothpaste in many countries, spawning imitations over which the company has been engaged in bitter legal disputes.

Colgate leverages the popularity of its brand as well as its international presence and implements a business strategy that focuses on attaining market leadership in certain key product categories and markets where its strengths lie. For example, Colgate controls almost a third of the world's toothpaste market where it has been gaining market share in the recent past!

Such market leadership allows it pricing power in the viciously

competitive consumer products' markets. A total consumer orientation, constant innovation, and relentless quest for improving cost efficiencies have been Colgate's hallmarks to success.

Another key feature in Colgate's strategy has been its extremely generous dividend policy; over the past ten years Colgate has paid out almost \$15 billion to its shareholders through cash dividends and stock buybacks, which is significantly more than the money it has raised from its shareholder's in its entire history! Colgate's dividend policy reflects its management philosophy of staying focused on generating superior shareholder returns rather than pursuing a strategy of misguided growth. Small, in Colgate's case, has certainly been beautiful!

Colgate

Something to smile about?



	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
Continuing Operations										
Net sales	\$16.73	\$15.56	\$15.33	\$15.33	\$13.79	\$12.24	\$11.40	\$10.58	\$9.90	\$9.29
Gross profit	9.59	9.20	9.01	9.01	8.22	7.21	6.62	6.15	5.75	5.35
Operating income	3.84	3.49	3.62	3.33	2.96	2.57	2.37	2.20	2.14	2.02
Net income	2.43	2.20	2.29	1.96	1.74	1.35	1.35	1.33	1.42	1.29
Total assets	12.72	11.17	11.13	9.98	10.11	9.14	8.51	8.67	7.48	7.09
Total liabilities	10.18	8.36	7.88	7.94	7.72	7.62	7.05	7.21	6.38	6.53
Long-term debt	4.43	2.82	2.82	3.59	3.22	2.72	2.92	3.09	2.68	3.21
Shareholders' equity	2.38	2.68	3.12	1.92	2.29	1.41	1.35	1.25	0.89	0.35
Treasury stock at cost	12.81	11.31	10.48	9.70	8.90	8.07	7.58	6.97	6.50	6.15
Basic earnings per share	4.98	4.45	4.53	3.81	3.35	2.57	2.54	2.45	2.60	2.33
Cash dividends per share	2.27	2.03	1.72	1.56	1.40	1.25	1.11	0.96	0.90	0.72
Closing stock price	92.39	80.37	82.15	68.54	77.96	65.24	54.85	51.16	50.05	52.43
Shares outstanding (billions)	0.48	0.49	0.49	0.50	0.51	0.51	0.52	0.53	0.53	0.54

Colgate

Something to smile about?



EQUITY INVESTORS

What are Colgate's future business prospects? Are Colgate's markets expected to grow? What are Colgate's competitive strengths and weaknesses? What strategic initiatives has Colgate taken, or does it plan to take, in response to business opportunities and threats?

What is Colgate's earnings potential? What is its recent earnings performance? How sustainable are current earnings? What are the "drivers" of Colgate's profitability? What estimates can be made about earnings growth?

What is Colgate's current financial condition? What risks and rewards does Colgate's financing structure portray? Are Colgate's earnings vulnerable to variability? Does Colgate possess the financial strength to overcome a period of poor profitability?

How does Colgate compare with its competitors, both domestically and globally? What is a reasonable price for Colgate's stock?

Colgate

Something to smile about?



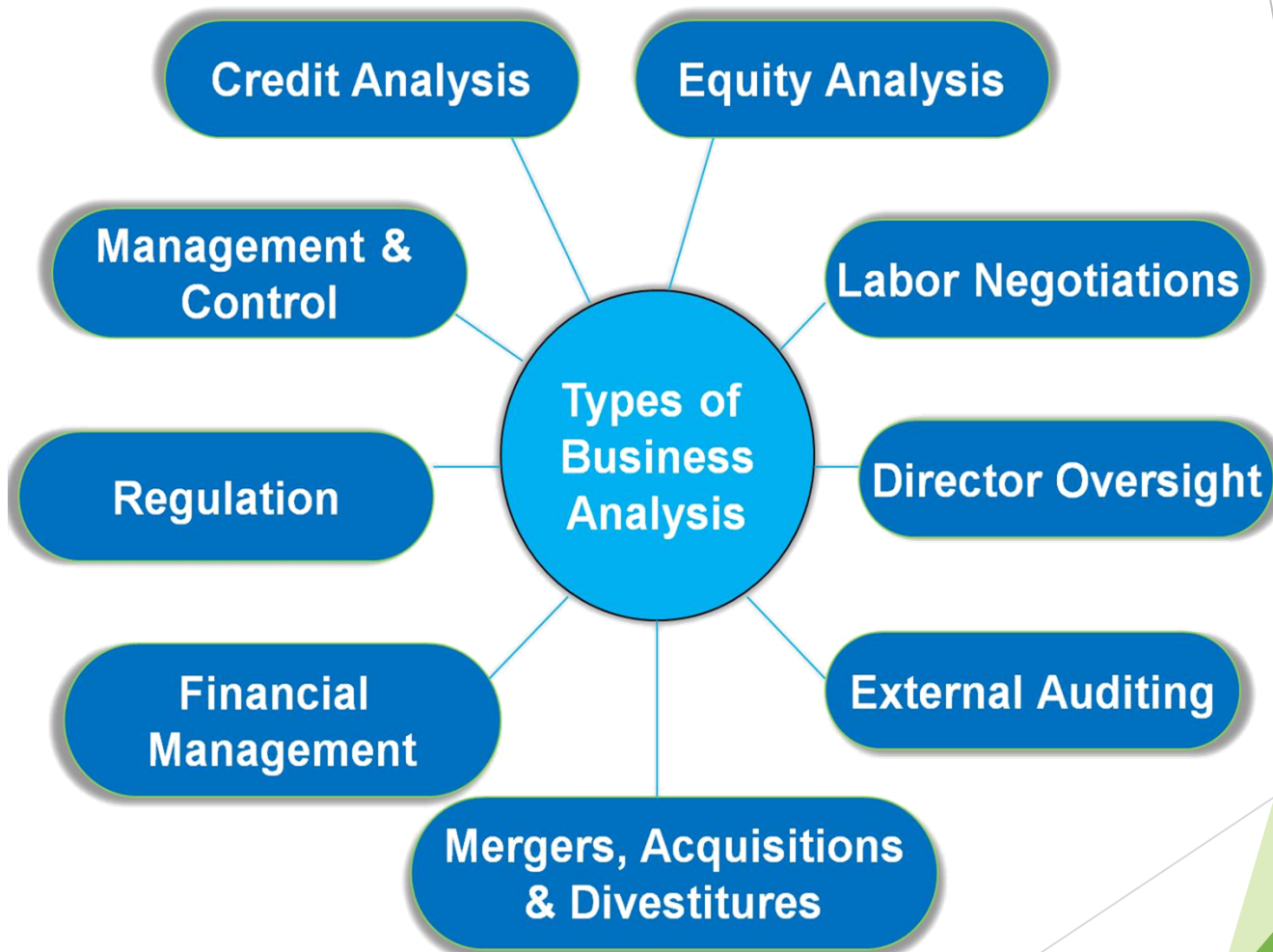
CREDITORS AND LENDERS

What are Colgate's business plans and prospects? What are Colgate's needs for future financing?

What are Colgate's likely sources for payment of interest and principal? How much cushion does Colgate have in its earnings and cash flows to pay interest and principal?

What is the likelihood Colgate will be unable to meet its financial obligations?
How volatile are Colgate's earnings and cash flows? Does Colgate have the financial strength to pay its commitments in a period of poor profitability?

Types of Business Analysis



Types of Business Analysis

CREDIT ANALYSIS

Creditworthiness

Liquidity

Solvency

Ability to meet short-term obligations

Focus:

- Current cash flows
- Make up of current assets and liabilities
- Liquidity of assets

Ability to meet long-term obligations

Focus:

- Long-term profitability
- Capital structure

Types of Business Analysis

CREDIT ANALYSIS

Creditworthiness

Liquidity

Solvency

EQUITY ANALYSIS

Downside risks +
Upside potential

Technical
Analysis

Fundamental
Analysis

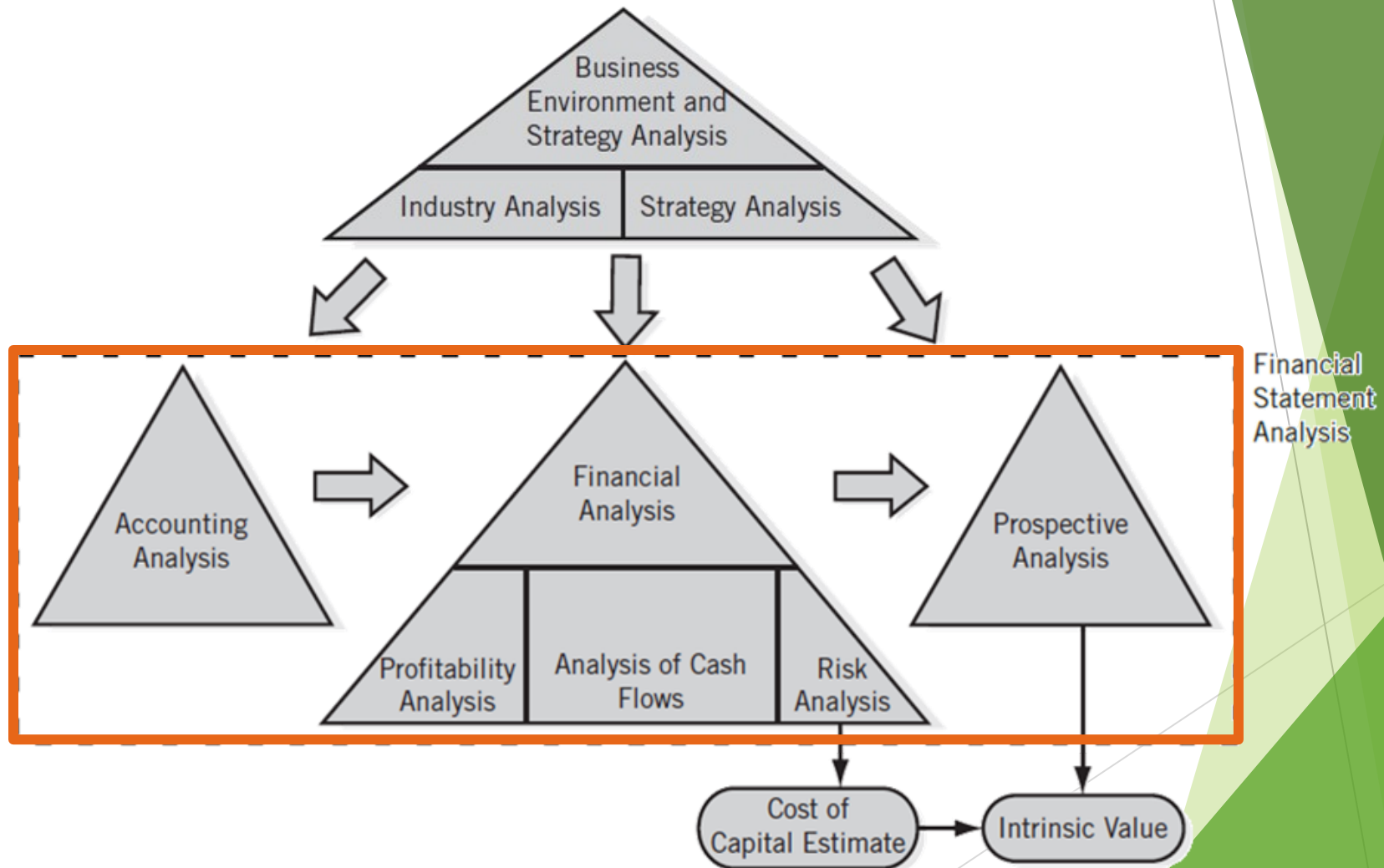


Intrinsic
value

Types of Business Analysis

- ▶ **Equity investors** provide funds to a company in return for the risks and rewards of ownership. Equity investors are major providers of company financing.
- ▶ **Technical analysis**, or charting, searches for patterns in the price or volume history of a stock to predict future price movements.
- ▶ **Fundamental analysis**, which is more widely accepted and applied, is the process of determining the value of a company by analyzing and interpreting key factors for the economy, the industry, and the company. A main part of fundamental analysis is evaluation of a company's financial position and performance.
- ▶ A major goal of fundamental analysis is to determine intrinsic value, also called *fundamental value*. **Intrinsic value** is the value of a company (or its stock) determined through fundamental analysis without reference to its market value (or stock price).

Components of Business Analysis



A Framework

Phase	Sources of Information	Output
1. Articulate the purpose and context of the analysis.	<ul style="list-style-type: none"> • The nature of the analyst's function, such as evaluating an equity or debt investment or issuing a credit rating. • Communication with client or supervisor on needs and concerns. • Institutional guidelines related to developing specific work product. 	<ul style="list-style-type: none"> • Statement of the purpose or objective of analysis. • A list (written or unwritten) of specific questions to be answered by the analysis. • Nature and content of report to be provided. • Timetable and budgeted resources for completion.
2. Collect input data.	<ul style="list-style-type: none"> • Financial statements, other financial data, questionnaires, and industry/economic data. • Discussions with management, suppliers, customers, and competitors. • Company site visits (e.g., to production facilities or retail stores). 	<ul style="list-style-type: none"> • Organized financial statements. • Financial data tables. • Completed questionnaires, if applicable.
3. Process data.	<ul style="list-style-type: none"> • Data from the previous phase. 	<ul style="list-style-type: none"> • Adjusted financial statements. • Common-size statements. • Ratios and graphs. • Forecasts.
4. Analyze/interpret the processed data.	<ul style="list-style-type: none"> • Input data as well as processed data. 	<ul style="list-style-type: none"> • Analytical results.

A Framework

Phase	Sources of Information	Output
5. Develop and communicate conclusions and recommendations (e.g., with an analysis report).	<ul style="list-style-type: none">• Analytical results and previous reports.• Institutional guidelines for published reports.	<ul style="list-style-type: none">• Analytical report answering questions posed in Phase 1.• Recommendation regarding the purpose of the analysis, such as whether to make an investment or grant credit.
6. Follow-up.	<ul style="list-style-type: none">• Information gathered by periodically repeating above steps as necessary to determine whether changes to holdings or recommendations are necessary.	<ul style="list-style-type: none">• Updated reports and recommendations.

Computations are not the Analysis

An analyst must be able to understand the “why” behind the numbers and ratios, not just what the numbers and ratios are.

- ▶ What aspects of performance are critical for this company to successfully compete in this industry?
- ▶ How well did the company's performance meet these critical aspects? (Established through computation and comparison with appropriate benchmarks, such as the company's own historical performance or competitors' performance.)
- ▶ What were the key causes of this performance, and how does this performance reflect the company's strategy? (Established through analysis.)

If the analysis is forward looking, additional questions include:

- ▶ What is the likely impact of an event or trend? (Established through interpretation of analysis.)
- ▶ What is the likely response of management to this trend? (Established through evaluation of quality of management and corporate governance.)
- ▶ What is the likely impact of trends in the company, industry, and economy on future cash flows? (Established through assessment of corporate strategy and through forecasts.)
- ▶ What are the recommendations of the analyst? (Established through interpretation and forecasting of results of analysis.)
- ▶ What risks should be highlighted? (Established by an evaluation of major uncertainties in the forecast and in the environment within which the company operates.)

Information sources for business analysis



Information sources for business analysis

FINANCIAL STATEMENTS

Balance Sheet

Income Statement

Statement of Changes in
Shareholders' Equity

Statement of Cash Flows

Explanatory Notes / Nota integrativa

ADDITIONAL INFORMATION

Management Report/Relazione
sulla gestione

Auditor Report/Relazione
dell'organo di revisione e/o del
Collegio Sindacale

Management's Discussion
and Analysis (MD&A)