

Chapter 1. What is Financial Analysis?

Questions.

1. What is financial analysis and how can it be used for a recommendation for a company asking for a loan? An equity investment decision?
2. Give an example of an internal financial analysis decision. An external decision.
3. Assume you are asked to develop a financial analysis strategy for a 40 year old manager who is restructuring her 401K retirement portfolio. Identify the purpose of the analysis and key points needed.
4. You are asked to evaluate the chemical industry as part of a corporate overview of Dow Chemical. How would you go about this analysis?
5. What are quantitative financial analysis techniques important for both internal and external financial analysis projects?
6. Why is specific accounting knowledge important for external financial analysis?
7. What is comprehensive analysis and why is it a necessary step in the financial analysis process?

1	<i>Financial analysis is the use of financial and other information to make recommendations and decisions. It is a six step process: Purpose, Overview, Quantitative Financial Analysis, Detailed Accounting Analysis, Comprehensive Analysis, and Financial Analysis Decisions.</i> <i>Credit Decisions: determine line of credit, interest rate, and other terms.</i> <i>Equity Decisions: Buy/Sell based on earnings growth, and other ratios.</i>
2	<i>Internal Analysis: What Managers do to operate and prepare statements.</i> <i>External Analysis: Six Step Approach by outsiders of a company, ratio analysis, etc.</i>
3	<i>In making equity decisions for an older individual, dividend distribution and low-risk may be more desirable and should be analyzed. Her criteria differ from younger investors who may have a focus on long-term appreciation as opposed to dividends and may care less about dividends.</i>
4	<i>Fortune 500 industries are broken into 62 categories. Using Standard Industrial Classification (SIC) codes. These should be used to designate Dow's industry. Once accomplished, analysts should conduct a thorough analysis of competitors. Knowledge about Dow should help answer questions such as:</i> <i>What do the companies in this industry do?</i> <i>What is the specific industry?</i> <i>How concentrated is it (competition)?</i> <i>What factors are unique to the industry (legal)?</i> <i>How do US and global economic conditions affect the industry?</i>
5	<u>3 functions of Financial Analysis Techniques</u> <i>1. Standardized Financial Info.</i> <i>a. Common-size analysis</i> <i>b. Return on Assets, etc.</i> <i>2. Financial trends analyzed over time.</i> <i>a. ROA better or worse than last year.</i> <i>b. Are projected figures an improvement over current ones.</i>

	3. Ratios and other measures can be compared with direct competitors.
6	<i>Differences often arise as companies use different (legal) procedures to prepare financial data (FIFO, LIFO, Avg. Cost, etc.). For this reason and the complexity of corporate environment, SPECIFIC accounting knowledge becomes important. Notes to financial statement help present specific data to be analyzed.</i>
7	<i>The findings from the financial analysis steps are summarized in Comprehensive Analysis, which stresses the most relevant information for determining whether or not to invest. This includes discussion of Red Flags and Green Flags.</i>

Problems: Throughout the book most problems will focus on (1) the chemical industry using Du Pont, Dow and PPG, (2) the Hotel and Resort Industry, and (3) the automotive industry using Ford and General Motors.

Problem 1.1. Du Pont's Corporate Overview and Business Strategy. The following are excerpts from various sources.

Industry: The chemical industry is global, with corporations producing both commodities and specialty products. A vast number of products are produced, with companies specializing in everything from bulk products with low margins to high-margin specialty products resulting from research and development. In the Fortune 1,000 34 chemical companies are listed (13 in the Fortune 500), with combined sales of \$154 billion. Du Pont is the largest with revenues of \$29 million. Economic conditions have a moderate effect on this industry, but have a differential impact on companies depending on specific products. Environmental regulations and other legal concerns have a major impact on this industry, again with differential effects by company.

From Hoover's Company Capsule (www.hoovers.com)

E. I. du Pont de Nemours is the largest chemical company in the U.S. Developer of Lycra, Dacron, and Teflon, Du Pont has operations in about 65 countries. Its eight business units make products including coatings, nylon, specialty polymers, and pigments and chemicals.

History: From Hoover's Handbook (1993, p. 249):

E. I. Du Pont fled the French Revolution ... [and] founded E. I. Du Pont de Nemours [1802] and set up a gunpowder plant [in Delaware]. Within a decade the plant grew to be the largest of its kind in the U.S. ... In 1902 Du Pont cousins Pierre, Alfred, and Coleman bought Du Pont and in 1903 instituted a centralized structure with functionally organized departments, an innovation that big business widely adopted. ... In the 1920s Du Pont bought and improved French cellophane technology and began production of rayon. Du Pont's of inventions includes neoprene synthetic rubber (1931), Orlon, Dacron, and many others.

Du Pont's Web page

DuPont is a science company, delivering science-based solutions in markets such as food and nutrition, health care, apparel, home and construction, electronics and transportation.

Two hundred years ago, DuPont was primarily an explosives company. One hundred years ago, our focus turned to global chemicals, materials and energy. Today, entering our third century, we deliver science-based solutions that make real differences in real lives. Look closely at the things around your home and, chances are, you'll find a DuPont imprint.

Our ability to adapt to change and our foundation of unending scientific inquiry enabled this two-century journey to becoming one of the world's most innovative companies. But, in the face of constant change, innovation and discovery, our core values have remained constant: commitment to safety, health and the environment; integrity and high ethical standards; and treating people with fairness and respect.

From 2001 10-K

DuPont was founded in 1802 and was incorporated in Delaware in 1915. DuPont is a world leader in science and technology in a range of disciplines including high-performance materials, synthetic fibers, electronics, specialty chemicals, agriculture and biotechnology. The company operates globally through some 22 strategic business units. Within the strategic business units, a wide range of products are manufactured for distribution and sale to many different markets, including the transportation, textile, construction, motor vehicle, agricultural, home furnishings, medical, packaging, electronics and the nutrition and health markets.

The company and its subsidiaries have operations in about 75 countries worldwide and, as a result, about 50 percent of consolidated sales are made to customers outside the United States. Subsidiaries and affiliates of DuPont conduct manufacturing, seed production, or selling activities, and some are distributors of products manufactured by the company.

In February 2002, the company announced the realignment of its businesses into five market- and technology-focused growth platforms and its plans for the creation of a Textiles and Interiors subsidiary. The growth platforms are: DuPont Electronic & Communication Technologies; DuPont Performance Materials; DuPont Coatings & Color Technologies; DuPont Safety & Protection; and DuPont Agriculture & Nutrition. DuPont will consider a full range of options to separate DuPont Textiles & Interiors from the company by year-end 2003, market conditions permitting.

Sales in 2001 were \$24, 726, down from \$28,268 in 2000. Net income in 2001 was \$4,339 million, up from \$2,314; however, \$3,866 million was a gain on the sale of Du Pont Pharmeauticals.

We faced the worst economic environment in two decades, unusually high energy prices and unfavorable currency exchange rates. ... Overall misson is substantial growth—creating value for our shareholders.

From MD&A (2000 Annual Report)

Consolidated sales in 2000 were a record \$28.3 billion, \$1.4 billion or 5 percent above 1999. Specialty Fibers, Specialty Polymers and Pigments & Chemicals segments had the most positive impact on volume.

Net income for the year 2000 was \$2,314 million compared with \$7,690 million in 1999. The decrease in net income principally reflects the absence of a \$7,471 million after-tax gain recorded in 1999 of discontinued business ...

Income from continuing operations was \$2,314 million or \$2.19 per share in 2000, compared to \$219 million of \$.19 per share in 1999.

Use this information (plus other internet searches) to write a one page Corporate Overview for Du Pont (one paragraph on industry and one paragraph on business strategy).

Answers May Vary

Industry	[size & relative significance, geographic presence (e.g., U.S., global ...), current performance (impact of business cycle, etc.), future potential] <i>This paragraph may include:</i> -<i>Chemical Industry is global</i> -<i>produces commodities and specialty products</i> -<i>Total Sales of Industry \$154 billion</i> -<i>Economic Conditions have moderate effect on the industry</i> -<i>Environmental Regulations have major impact on industry</i> -<i>DuPont operates globally through 22 strategic business units</i> -<i>Wide range of products</i> -<i>operations in 75 countries</i>
Business Strategy	[historical, major focus & operations, segments, objectives, forecasts] <i>This paragraph may include:</i> -<i>DuPont is science company, delivering science-based solutions in markets such as food and nutrition, health care, apparel, home and construction, electronics and transportation.</i> -<i>Market Saturation info (pgph. 2 from “DuPont’s Web Page”)</i> -<i>adaptable</i> -<i>In 2002, DuPont realigned its businesses into growth platforms</i>

Problem 1.2. Hilton's Corporate Overview and Business Strategy. The following are excerpts from various sources.

Industry: The hotel, casino and resort industry includes nine companies on Fortune's 1000 list, with Hilton at #499 based on revenue. Total revenues for the group were \$35 billion in 2001, with income down substantially to \$791 million. Marriott is the largest of the group, at #189. These companies have global operations, although their primary focus usually is in the U.S. The corporations operate in somewhat different sectors, although all have major hotel operations. This is a capital intensive industry and depends on tourism for most of its revenue and growth. They were hard hit by the recession of 2001 and the September 11 attacks.

From Hoover's Company Capsule (www.hoovers.com):

The company's lodging empire includes some 2,000 hotels (about 80% are franchised), mostly located in the U.S. Hilton operates 21 vacation resorts [but] has completely cashed out of the gaming industry.

History: From Hoover's Handbook (1993, p. 326)

Conrad Hilton got his start in hotel management by renting rooms in his family's New Mexico home. [He bought] his first hotel in Cicso, Texas. He survived the Great Depression. He began buying hotels again. He founded Hilton International to manage his foreign business (1948) and realized his ambition to run New York's Waldorf-Astoria (1949). The company began to franchise in 1965. Conrad's son Baron became president in 1966.

From company's MD&A, 2001 10-K

We are primarily engaged in the ownership, management and development of hotels, resorts and timeshare properties and the franchising of lodging properties. Our brands include Hilton, Hilton Garden Inn, Doubletree, Embassy Suites, Hampton, Homewood Suites by Hilton. In addition, we develop and operate timeshare resorts through Hilton Grand Vacations Company.

Our operations consist of three reportable segments which are based on similar products or services: Hotel Ownership, Managing and Franchising, and Timeshare. The Hotel Ownership segment derives revenue primarily from the rental of rooms as well as food and beverage operations at our owned, majority owned and leased hotel properties and equity earnings from unconsolidated affiliates. The Management and Franchising segment provides services including hotel management and licensing of the Hilton family of brands. This segment generates its revenue from management and franchise fees charged to hotel owners. The Timeshare segment consists of multi-unit timeshare resorts.

Development: We intend to grow our hotel brands primarily through franchising and the addition of management contracts, which require little or no capital investment. In addition, we will continue to invest in normal capital replacement and select major

renovation projects at our owned hotels, and we may seek to acquire hotel properties on a strategic and selective basis.

Fiscal 2001 compared with fiscal 2000 (in millions):

	2000	2001	% Change
Revenue	\$3,451	\$3,050	-12%
Operating Income	830	632	-24
Net Income	272	166	-39
EPS, Basic	0.73	0.45	-39

All operating numbers down, do to a combination of the recession and September 11 attacks.

From Hilton's webpage (www.hilton.com):

Conrad Hilton purchased his first hotel in Cisco, Texas back in 1919. The first hotel to carry the Hilton name was built in Dallas in 1925. In 1943, Hilton became the first "coast-to-coast" hotel chain in the United States; and in 1949, open its first hotel outside the U.S. in San Juan, Puerto Rico. Hilton went on the New York Stock Exchange in 1946, and Conrad Hilton purchased the Waldorf Astoria in 1949. Hilton has several world-renowned, marquee properties; some of which are: Beverly Hilton, Cavalieri Hilton in Rome, Hilton Athens, Hilton San Francisco, Hilton New York, Hilton Hawaiian Village, Hilton Waikoloa Village, Paris Hilton, and others.

Hilton Hotels Corporation is recognized around the world as a preeminent lodging hospitality company, offering guests and customers the finest accommodations, services, amenities and value for business or leisure. While the Hilton brand has, for more than 80 years, been synonymous with excellence in the hospitality industry, our acquisition in 1999 of Promus Hotel Corporation expanded our family of brands to include such well-known and highly respected brand names as Hampton Inn®, Doubletree®, Embassy Suites Hotels®, and Homewood Suites® by Hilton. Through ownership of some of the most recognized hotels in the world and our newly enhanced brand portfolio, Hilton is now able to offer guests the widest possible variety of hotel experiences, including four-star city center hotels, convention properties, all-suite hotels, extended stay, mid-priced focused service, destination resorts, vacation ownership, airport hotels and conference centers.

Today's Hilton can be viewed as a major industry competitor in a number of areas:

- **OWNING HOTELS.** Hilton owns such unique, irreplaceable hotel assets as New York's Waldorf=Astoria, The Hilton Hawaiian Village® on Waikiki Beach, Chicago's Palmer House Hilton and the Hilton San Francisco on Union Square. These large-scale properties occupy the best locations in the nation's best markets.
- **MANAGING/FRANCHISING HOTELS.** The company is a prominent franchisor of hotels across its entire brand family, with income from management or franchise fees accounting for some 30 percent of Hilton's total cash flow. The company will open, through its franchisees, approximately 430 hotels and 63,000 rooms in 2000-01, consisting primarily of Hampton Inn, Homewood Suites by Hilton and Hilton Garden Inn hotels.

- **VACATION OWNERSHIP.** Hilton Grand Vacations Club, the company's vacation ownership business, operates properties across the country including such desirable locales as Las Vegas, Orlando, Miami and (in 2001) Honolulu.
- **INTERNATIONAL.** A global strategic alliance with Hilton International, the London-based company which owns the rights to the Hilton brand outside of the U.S., brings to customers a single, seamless Hilton system of 2,000 hotels in more than 50 countries throughout the world. Additionally, Conrad International offers five-star luxury hotels in England, Ireland, Belgium, Hong Kong, Singapore, Turkey and Egypt.

Use this information (plus other internet searches) to write a one page Corporate Overview for Hilton (one paragraph on industry and one paragraph on business strategy).

Answers May Vary

Industry	[size & relative significance, geographic presence (e.g., U.S., global ...), current performance (impact of business cycle, etc.), future potential] <i>This paragraph may include:</i> -<i>Total Revenues of industry were \$35 billion</i> -<i>Industry has global operations, primary focus in US</i> -<i>Capital Investment Industry</i> -<i>Revenue depends on tourism</i>
Business Strategy	[historical, major focus & operations, segments, objectives, forecasts] -<i>Mostly located in US</i> -<i>Primarily engaged in ownership, management and development of hotels, resorts, and timeshare properties and the franchising of lodging properties.</i> -<i>Operations consist of 3 segments: Hotel Ownership, Managing and Franchising, and Timeshare.</i> -<i>Development: Hotel growth through franchising and management, normal capital replacement.</i> -<i>acquired Promus Hotel Co.</i> -<i>Info from Webpage bullets describing how it is an industry competitor.</i>

Problem 1.3. Ford's Corporate Overview and Business Strategy. The following are excerpts from various sources.

Industry: The 100 year old motor vehicle industry is global, with major North American, European and Asian markets. Auto manufacturing is among the largest and most complex of the heavy industrials in the world and companies compete in auto, truck, SUV and other markets. Competition is fierce with all companies attempting to gain market share in the major markets. These are durable goods, subject to business cycle conditions. When economic conditions are robust, these companies tend to be immensely profitable. But during recession, massive losses are the rule. Only Ford and General Motors are listed on the Fortune 1000 list. However, the Fortune Global 500 has 16 listed manufacturers, including DaimlerChrysler, Toyota, Volkswagen, Honda and Nissan. Globally, this is a trillion dollar industry (in sales). Individual companies have their own strengths and weakness by geographic area and product. The industry is subject to safety, fuel economy, and environmental regulations. Law suits also are common.

From Hoover's Company Capsule (www.hoovers.com)

Ford Motor started a manufacturing revolution with its mass production assembly lines in the early 1900s. Now Ford is firmly entrenched in the status quo as the world's largest truck maker and the #2 maker of cars and trucks, behind General Motors. It makes vehicles under the Aston Martin, Ford, Jaguar, Lincoln, Mercury, and Volvo brands. Two of its biggest successes are the Ford Taurus and the F-Series pickup. Ford also owns a controlling (33%) stake in Mazda and has purchased BMW's Land Rover SUV operations. Ford's finance subsidiary, Ford Motor Credit, is the US's #1 auto finance company. Ford also owns 81% of Hertz, the #1 car rental firm in the world. The Ford family owns about 34% of the firm's voting stock.

History: From Hoover's Handbook (1993, p. 280)

Henry Ford began the Ford Motor Company in 1903 in Dearborn, Michigan, hoping to design a car he could mass-produce. In 1908 he introduced the Model T. ...Ford perfected the moving assembly line. ... By 1916 the cars cost \$360; by 1920- 60% of all vehicles were Fords. ... It was 1956 before the Ford allowed outside ownership. [During the Depression] market share slipped behind GM and Chrysler. ... In 1950 Ford recaptured 2nd place from Chrysler.

From Management Discussion and Analysis (2001 Annual Report)

Our worldwide sales and revenues were \$162.4 billion in 2001, down \$7.7 billion from 2000, reflecting primarily lower vehicle sales in North America, offset partially by higher vehicle sales in Europe. We sold 6,991,000 cars and trucks in 2001, down 433,000 units ... The Company lost \$5,453 million in 2001 after a net income of \$3,467 in 2000.

Results summary: Automotive

North America, return on sales of -2.3%
 Europe, return on sales of 0.8%
 Rest of world, earned \$156 million
 Financial services: earnings declined 22%

Stockholders' equity was \$7.8 billion 12/31/01, down \$10.8 billion due to net losses, dividend payments, foreign currency translation, etc.

Bond ratings were lowered by Moody's in 2002 (from A3 to Baa1 on long-term debt), S&P (from A- to BBB) and Fitch (from A+ to A-).

From Review of Major Operations (2000 Annual Report)

2000 Operating Highlights

- Improved worldwide automotive sales of \$170.1 billion in 2000, up \$9.4 billion from 1999

- Record 7.4 million vehicles sold worldwide
- Income from operations for automotive \$3.6 billion and \$5,410 billion overall

Competitive Strengths

- Worldwide truck leadership
- Total cost management
- Global product development capability and distribution network
- Global platforms/great brands
- Strong union relations
- Strong balance sheet
- Highest U.S. customer loyalty

Breakthrough Priorities

- E-Business
- Customer Satisfaction

From CEO's Letter (2000 Annual Report)

At the start of last year we reconfirmed our commitment to being the leading consumer company for automotive products and services. This makes customers the foundation of everything we do and superior shareholder returns the ultimate measure of our success.

Our two breakthrough strategic priorities—customer satisfaction and e-business—are aligned with the customer-driven vision. We made tremendous progress on both initiatives in 2000.

Use this and other internet sources to write a one page Corporate Overview for Ford (one paragraph on industry and one paragraph on business strategy).

Industry	[size & relative significance, geographic presence (e.g., U.S., global ...), current performance (impact of business cycle, etc.), future potential] <i>This paragraph may include:</i> -<i>global industry, major North American, European and Asian markets.</i> -<i>largest and most complex industry</i> -<i>Fierce competition</i> -<i>durable goods subject to business cycle conditions</i> -<i>massive layoffs during recession</i> -<i>industry subject to safety, fuel economy, and environmental regulations.</i> -<i>Sales were 162.4 billion</i> -<i>Return on Sales Data</i> -<i>Competitive Strengths</i>
Business Strategy	[historical, major focus & operations, segments, objectives, forecasts] -<i>Ford started manufacturing revolution, mass production</i> -<i>Controls 33% of Mazda and purchased BMW's Land Rover SUV ops.</i>

	-#1 finance company -Owns Hertz -Operating Highlights -Breakthrough Priorities
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Cases:

Case 1.1. Is IBM a direct competitor of Dell? IBM is the world's largest provider of computer hardware, everything from notebooks to mainframes and network servers. It's number two to Microsoft in software and also a major player in peripherals and computer services. About 60% of IBM's sales are outside the U.S. IBM PC sales (part of IBM's personal systems division) represent a 4% market share, up 1.1% from 1999. IBM is shifting to internet sales. An operating summary from IBM's 2000 segment reporting note (in millions) is:

	Personal Systems Segment	Total Segments
Revenue	\$16,250	\$96,370
Pre-tax income	-148	10,891
Total assets	2,442	69,263

Is IBM a direct competitor to Dell? Yes or no and explain. For more information see www.ibm.com and www.dell.com.

The answer is yes & no. That is, either position can be supported. PCs are a small part of IBM's operations (and not very successful), but still market share in this area. Dell must compete against IBM & all other manufacturers that have PCs as part of their operations. On the other hand, PCs are a minor consideration for IBM.

[Note: particularly important numbers are in bold. Usually, these suggest "bad news".]

Ethics Considerations. Many industries are associated with specific public policy issues. Tobacco companies produce products that cause health problems and the companies have been sued by governments and individuals for billions. Chemical companies produce some dangerous chemicals, some that cause environmental damage. Perhaps the most significant problem is chemical dumping in water and land sites. Environmental Protection Agency damage assessments, lawsuits, and regulatory fines have cost the chemical industry hundreds of millions of dollars. Other industries have various public policy problems. Autos cause pollution and are subject to fuel mileage and safety issue, utilities are air polluters, pharmaceutical companies produce drugs with unexpected side effects.

- These are industry problems important to analysts. What should be the major focus? The specific public policy issues involved? Or should the focus be exclusively on the potential for damages that reduce earnings?
- Take the position of a specific user, either potential creditor or equity investor. Does this perspective change your answer from (a) above?

a.	<i>The importance of ethics & public policy issues is up to the analyst. Some</i>
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	<i>investors stay away from what they consider “unethical” industries or practices (supported on ethics or performance grounds), while others only look at the potential for returns.</i>
<i>b.</i>	<i>This answer will vary, but perhaps half will say that there is no difference.</i>

Internet Projects

Project 1.1. Pick a company for a Corporate Overview and Business Strategy. Use the company’s annual report, Hoover’s Company Capsule (www.hoovers.com), Fortune’s Fortune 500 industry (www.fortune.com) and other sources to write a one page Corporate Overview for this company (one paragraph on the industry & one paragraph on the business strategy).