

Chapter 2 Strategy Analysis

Question 1.

Judith, an accounting major, states: “Strategy analysis seems to be an unnecessary detour in doing financial statement analysis. Why can’t we just get straight to the accounting issues?” Explain to Judith why she might be wrong.

Strategy analysis enables the analyst to understand the underlying economics of the firm and the industry in which the firm competes. There are a number of benefits to developing this knowledge before performing any financial statement analysis.

1. *Strategy understanding* provides a context for evaluating a firm’s choice of accounting policies and hence the information reflected in its financial statements. For example, accounting policies (such as revenue recognition and cost capitalization) can differ across firms either because of differences in business economics or because of differences in management’s financial reporting incentives. Only by understanding differences in firms’ business strategies is it possible to assess how much to rely on a firm’s accounting information.
2. *Strategy analysis* highlights the firm’s profit drivers and major areas of risk. An analyst can then use this information to evaluate current firm performance and to assess the firm’s likelihood of maintaining or changing this performance based on its business strategy.
3. *Strategy analysis* also makes it possible to understand a firm’s financial policies and whether they make sense. As discussed later in the book, the firm’s business economics is an important driver of its capital structure and dividend policy decisions.

In summary, understanding a firm’s business, the factors that are critical to the success of that business, and its key risks is critical to effective financial statement analysis.

Question 2.

What are the critical drivers of industry profitability?

Rivalry Among Existing Firms. The greater the degree of competition among firms in an industry, the lower average profitability is likely to be. The factors that influence existing firm rivalry are industry growth rate, concentration and balance of competitors, degree of differentiation and switching costs, scale/learning economies and the ratio of fixed to variable costs, and excess capacity and exit barriers.

Threat of New Entrants. The threat of new entry can force firms to set prices to keep industry profits low. The threat of new entry can be mitigated by economies of scale, first mover advantages to incumbents, greater access to channels of distribution and existing customer relationships, and legal barriers to entry.

Threat of Substitute Products. The threat of substitute products can force firms to set lower prices, reducing industry profitability. The importance of substitutes will depend on the price sensitivity of buyers and the degree of substitutability among the products.

Bargaining Power of Buyers. The greater the bargaining power of buyers, the lower the industry’s profitability. Bargaining power of buyers will be determined by the buyers’ price sensitivity and their

importance to the individual firm. As the volume of purchases of a single buyer increases, its bargaining power with the supplier increases.

Bargaining Power of Suppliers. The greater the bargaining power of suppliers, the lower the industry's profitability. Suppliers' bargaining ability increases as the number of suppliers declines when there are few substitutes available.

Question 3.

One of the fastest growing industries in the last twenty years is the memory chip industry, which supplies memory chips for personal computers and other electronic devices. Yet the average profitability has been very low. Using the industry analysis framework, list all the potential factors that might explain this apparent contradiction.

Concentration and Balance of Competitors. The concentration of the memory chip market is relatively low. There are many players that compete on a global basis, none of which has a dominant share of the market. Due to this high degree of fragmentation, price wars are frequent as individual firms lower prices to gain market share.

Degree of Differentiation and Switching Costs. In general, memory chips are a commodity product characterized by little product differentiation. While some product differentiation occurs as chip makers squeeze more memory on a single chip or design specific memory chips to meet manufacturers' specific power and/or size requirements, these differences are typically short-lived and have not significantly reduced the level of competition within the industry. Furthermore, because memory chips are typically interchangeable, switching costs for users of memory chips (computer assemblers and computer owners) encouraging buyers to look for the lowest price for memory chips.

Scale/Learning Economies and the Ratio of Fixed to Variable Costs. Scale and learning economies are both important to the memory chip market. Memory chip production requires significant investment in "clean" production environments. Consequently, it is less expensive to build larger manufacturing facilities than to build additional ones to satisfy additional demand. Moreover, the yield of acceptable chips goes up as employees learn the intricacies of the extremely complicated and sensitive manufacturing process. Finally, while investments in memory chip manufacturing plants are typically very high, the variable costs of materials and labor are relatively low, providing an incentive for manufacturers to reduce prices to fully utilize their plant's capacity.

Excess Capacity. Historically, memory chip plants tend to be built in waves, so that several plants will open at about the same time. Consequently, the industry is characterized by periods of significant excess capacity where manufacturers will cut prices to use their productive capacity (see above).

Threat of Substitute Products. There are several alternatives to memory chips including other information storage media (e.g., hard drives and disk drives) and memory management software that "creates" additional memory through more efficient use of computer system resources.

Price Sensitivity. There are two main groups of buyers: computer manufacturers and computer owners. Faced with an undifferentiated product and low switching costs, buyers are very price sensitive.

All the above factors cause returns for memory chip manufacturers to be relatively low.

Question 4.

Joe argues: “Your analysis of the five forces that affect industry profitability is incomplete. For example, in the banking industry, I can think of at least three other factors that are also important; namely, government regulation, demographic trends, and cultural factors.” His classmate Jane disagrees and says, “These three factors are important only to the extent that they influence one of the five forces.” Explain how, if at all, the three factors discussed by Joe affect the five forces for the banking industry.

Government regulation, demographic trends, and cultural factors will each impact the analysis of the banking industry. While these may be important, they can each be recast using the five forces framework to provide a deeper understanding of the industry. The power of the five forces framework is its ability to incorporate industry-specific characteristics into analysis for any industry. To see how government regulation, demographic trends, and cultural factors are important in the banking industry, we can apply the five forces framework as follows:

Rivalry Among Existing Firms. Government regulation has played a central role in promoting, maintaining, and limiting competition among banks. Banks are regulated at the national and European levels. In the past, national regulations restricted banks from operating across (some European) borders. The government also regulates the riskiness of a bank’s portfolio in an effort to prevent banks from competing for new customers by taking on too many high-risk investments, loans, or other financial instruments. These regulations have limited the degree of competition among banks. However, European deregulation of the industry has made it easier for banks to expand into new geographic areas, increasing the level of competition.

Threat of New Entrants. Government regulations have limited the entry of new players into the banking industry. New banks must meet the requirements set by regulators before they can begin operation. However, as noted above, deregulation of some aspects of banking has made it easier for out-of-country banks to enter new markets. Further, it appears to be relatively easy for non-banking companies to successfully set up financial services units (e.g., car manufacturers). Finally, as consumers have become more comfortable with technology, “Internet banks” have formed. These “banks” provide the same services as traditional banks, but with a very different cost structure.

Threat of Substitute Products. The primary functions of banks are lending money and providing a place to invest money. Potential substitutes for these functions are provided by thrifts, credit unions, brokerage houses, mortgage companies, and the financing arms of companies such as car manufacturers. Government regulation of these entities varies dramatically, affecting how similar their products are to those of banks. In addition, consumers have become increasingly familiar with non-bank options for investing money. As another example, some brokerage houses provide money market accounts that function as checking accounts. As a result, the threat of substitutes for bank services has grown over time.

Bargaining Power of Buyers. Business and consumer buyers of credit have little direct bargaining power over banks and financial institutions. The buying power of customers is probably also stronger in relationship banking than under a transactions approach, where consumers seek the lowest-cost lender for each new loan. Because the use of these approaches varies across countries (due to legal differences; see chapter 10), the bargaining power of buyers may also vary.

Bargaining Power of Suppliers. Depositors have historically had little bargaining power.

In summary, bank regulations have historically had a very important role in determining bank profitability by restricting competition. However, deregulation in the industry as well as the emergence of non-bank substitutes has increased competition in the industry.

Question 5.

Examples of European firms that operate in the pharmaceutical industry are GlaxoSmithKline and Bayer. Examples of European firms that operate in the tour-operating industry are Thomas Cook and TUI. Rate the pharmaceutical and tour operating industries as high, medium, or low on the following dimensions of industry structure: (1) Rivalry; (2) Threat of new entrants; (3) Threat of substitute products; (4) Bargaining power of suppliers, and (5) Bargaining power of buyers. Given your ratings, which industry would you expect to earn the highest returns?

Pharmaceutical firms historically have had some of the highest rates of return in the economy, whereas tour operators have had moderate returns. The following analysis reveals why.

	Pharmaceutical Industry	Tour Operating Industry
Rivalry	<i>Medium</i> Firms compete fiercely to develop and patent drugs. However, once a drug is patented, a firm has a monopoly for that drug, dramatically reducing competition. Competitors can only enter the same market by developing a drug that does not infringe on the patent.	<i>High</i> In the 1990s the European tourism industry exhibited strong growth. After a slowdown in growth due to the 2001 terrorist attacks, growth has been steady in the 2000s. However, the trend towards short-term bookings and web-based bookings (in combination with high price transparency) has structurally changed the industry and increased competition.
Threat of New Entrants	<i>Low</i> Economies of scale and first mover advantages are very high for the industry. Patents deter new entrants. In addition, drug firms' sales forces have established relationships with doctors which act as a further deterrent for a new entrant. This distribution advantage is changing as managed-care firms have begun negotiating directly with drug companies on behalf of the doctors in their network.	<i>Medium to high</i> "Tourism e-mediaries" such as expedia.com can relatively easily enter the market. In addition, suppliers of accommodation and travel services (such as Ryanair) start bypassing tour operators by offering their products online.
Threat of Substitute Products	<i>Low</i> New drugs are protected by patents giving manufacturers a monopoly position. Competitors are forced either to invent around the patent or to wait until the patent expires. Once the patent expires, a company will reduce prices as other manufacturers enter the market. The threat of substitute products,	

	however, is likely to increase as biotech products enter the market.	
Bargaining Power of Buyers	<i>Low</i> Historically, doctors have had little buying power. However, in some countries managed-care providers have become more powerful recently, and have begun negotiating substantial discounts for drug purchases.	<i>High</i> The online offering of accommodation, flight services, car rentals etc. has increased price transparency and, consequently, increased buyers' bargaining power.
Bargaining Power of Suppliers	<i>Low</i> The chemical ingredients for drugs can be obtained from a variety of chemical suppliers.	<i>Medium</i> Tour operators are large and concentrated relative to the suppliers of accommodation and other services. However, suppliers have the ability to "bypass" tour operators by selling their accommodation directly through the internet. Tour operators respond to this threat by means of vertically integrating their activities (e.g., owning their own hotels and airlines).

Question 6.

In 2011, Puma was a very profitable sportswear company. Puma did not produce most of the shoes, apparel and accessories that it sold. Instead, the company entered into contracts with independent manufacturers, primarily in Asia. Puma also licensed independent companies throughout the world to design, develop, produce and distribute a selected range of products under its brand name. Use the five forces framework and your knowledge of the sportswear industry to explain Puma's high profitability in 2011.

While consumers perceive an intensely competitive relationship between companies such as Puma and Adidas, these major players in the sportswear industry have structured their businesses to retain most of the profits in the industry by concentrating operations in its least competitive segments. Puma competes primarily on brand image rather than on price. The company sources the manufacturing of its sports products to smaller independent manufacturers, located in Asia and Eastern Europe, over which the company has significant bargaining power.

The threat of new entrants is restricted by limited access to adequate distribution channels, (even more) by the valuable brand name that has been created by Puma, and Puma's expertise in development and design. While sportswear is relatively inexpensive and easy to make (also given the large number of independent manufacturers), a sportswear manufacturer would have difficulty finding a distributor that could get its products to retail stores and placed in desirable shelf space. The high levels of advertising by Puma (including sponsoring contracts with celebrity athletes) have created a highly valued, universally recognized brand, which would be difficult for a potential competitor to replicate.

Puma's valuable brand name and the great demand for the company's products improve the company's bargaining power over its distributors (retail stores). To reduce the power of distributors/retail stores even more, the company has started to open own stores in an increasingly

number of large cities around the world (such as in Amsterdam, Stockholm, Frankfurt, London, Rome, Milan, Melbourne, Tokyo, Boston, Seattle, Sydney, Osaka, Philadelphia, and Las Vegas).

Puma also makes money by licensing other companies to produce and distributes products under the Puma brand name. The sports licensing business tends to be highly competitive, which makes that Puma has substantial bargaining power over licensees.

Potential threats to Puma's competitive position are the following:

- Puma needs to continue investing substantial amounts in advertising, sponsoring, design and innovation in order to sustain its brand image.
- Some of the companies to which Puma sources its production are by no means small, powerless production companies. For example, in 2005, one of Puma's suppliers was Hong-Kong-based Yue Yuen. This supplier employed 252,000 people, had production plants in China, Vietnam and Indonesia with in total 3.4 million square meters of floor space, and produced 167.2 million pairs of shoes per year for most of the larger athletic shoe sellers.

Question 7.

In response to the deregulation of the European airline industry during the 1980s and 1990s, European airlines followed their U.S. peers in starting frequent flier programs as a way to differentiate themselves from others. Industry analysts, however, believe that frequent flyer programs had only mixed success. Use the competitive advantage concepts to explain why.

Initially, frequent flier programs had only limited success in creating differentiation among airlines. Airlines tried to bundle frequent flier mileage programs with regular airline transportation to increase customer loyalty and to create a differentiated product. Furthermore, the airlines anticipated that the programs would fill seats that would otherwise have been empty and would, so they believed, have had a low marginal cost. However, because the costs of implementing a program were low, there were very few barriers to other airlines starting their own frequent flier programs. Before long, every airline had a frequent flier program with roughly the same requirements for earning free air travel. Simply having a frequent flier program no longer differentiated airlines.

Airlines have had some success in differentiating frequent flier programs by creating additional ways to earn frequent flier mileage and increasing the number of destinations covered. Airlines have developed "tie-ins" with credit card companies, car rental companies, hotels, etc. to allow members of a particular frequent flier program more ways to earn frequent flier mileage. They have also reached agreements with foreign airlines (within alliances) so that frequent flier mileage can be redeemed for travel to locations not served by the carrier. Finally, the programs have provided additional services for their best customers, including special lines for check-in and better flight upgrade opportunities. As a result of these efforts, airline programs have been somewhat successful in increasing customer loyalty.

Question 8.

What are the ways that a firm can create barriers to entry to deter competition in its business? What factors determine whether these barriers are likely to be enduring?

Barriers to entry allow a firm to earn profits while at the same time preventing other firms from entering the market. The primary sources of barriers to entry include economies of scale, absolute costs advantages, product differentiation advantages, and government restrictions on entry of competitors. Firms can create these barriers through a variety of means.

1. A firm can engineer and design its products, processes, and services to create economies of scale. Because of economies of scale, larger plants can produce goods at a lower cost than smaller plants. Hence, a firm considering entering the existing firm's market must be able to take advantage of the same scale economies or be forced to charge a higher price for its products and services.
2. Cost leaders have absolute cost advantages over rivals. Through the development of superior production techniques, investment in research and development, accumulation of greater operating experience or special access to raw materials, or exclusive contracts with distributors or suppliers, cost leaders operate at a lower cost than any potential new entrants to the market.
3. Differentiation of the firm's products and services may also help create barriers to entry for other firms. Firms often spend considerable resources to differentiate their products or services. Soft drink makers, for example, invest in advertising designed to differentiate their products from other products in the market. Other competitors that would like to enter the market will be forced to make similar investments in any new products.
4. Firms often try to persuade governments to impose entry restrictions through patents, regulations, and licenses. In the U.S., AT&T fought with the government for many years to prevent other providers of long distance telephone service from entering the market. Similarly, the local Bell operating companies have lobbied the federal government to write laws to make it difficult for other firms to provide local phone service.

Several factors influence how long specific barriers to entry are effective at preventing the entry of competitors into an industry.

- Economies of scale depend on the size and growth of the market. If a market is growing quickly, a competitor could build a larger plant capable of producing at a cost lower than the incumbent. If a market is flat, there may not be enough demand to support additional production at the efficient scale, which forces new entrants to have higher costs.
- Absolute cost advantages depend on competitors' difficulty in designing better processes. Some processes receive legal protection from patents. Entrants must either wait for the patent to expire or bear the expense of trying to invest around the patent. Similarly, differentiation advantages last only so long as a firm continues to invest in differentiation and it is difficult for other firms to replicate the same differentiated product or service.
- Incumbent firms and potential entrants can both lobby the government. If potential entrants launch intensive lobbying and public interest campaigns, laws, regulations, and rules can change to ease entry into a once-protected industry. Several recent examples in Europe are deregulation of the airline and banking industries.

Question 9.

Explain why you agree or disagree with each of the following statements.

- a. It's better to be a differentiator than a cost leader, since you can then charge premium prices.

Disagree. While it is true that differentiators can charge higher prices compared to cost leaders, both strategies can be equally profitable. Differentiation is expensive to develop and maintain. It often requires significant company investment in research and development, engineering, training, and marketing. Consequently, it is more expensive for companies to provide goods and services under a differentiated strategy. Thus, profitability of a firm using the differentiated strategy depends on being able to produce differentiated products or services at a cost lower than the premium price. On the other hand, the cost leadership strategy can be very profitable

for companies. A cost leader will often be able to maintain larger margins and higher turnover than its nearest competitors. If a company's competitors have higher costs but match the cost leader's prices, the competitors will be forced to have lower margins. Competitors that choose to keep prices higher and maintain margins will lose market share. Hence, being a cost leader can be just as profitable as being a differentiator.

- b. It's more profitable to be in a high-technology than a low-technology industry.

Disagree. There are highly profitable firms in both high technology and low technology industries. The argument presumes that high technology always creates barriers to entry. However, high technology is not always an effective entry barrier and can be associated with high levels of competition among existing firms, high threat of new entrants, substitute products, and high bargaining power of buyers and/or sellers. For example, the personal computer industry is a high-technology business, yet is highly competitive. There are very low costs of entering the industry, little product differentiation in terms of quality, and two very powerful suppliers (Microsoft and Intel). Consequently, firms in the PC business typically struggle to earn a normal return on their capital. In contrast, Aldi is a cost leader in a very low-tech industry, and is one of the most profitable retailers in Europe.

- c. The reason why industries with large investments have high barriers to entry is because it is costly to raise capital.

Disagree. The cost of raising capital is generally related to risk of the project rather than the size of the project. As long as the risks of the project are understood, the costs of raising the necessary capital will be fairly priced. However, large investments can act as high entry barriers in several other ways. First, where large investments are necessary to achieve scale economies, if additional capacity will not be fully used, it may make it unprofitable for entrants to invest in new plant. Second, a new firm may be at an initial cost disadvantage as it begins to learn how to use the new assets in the most efficient manner. Third, existing firms may have excess capacity in reserve that they could use to flood the market if potential competitors attempt to enter the market.

Question 10.

There are very few companies that are able to be both cost leaders and differentiators. Why? Can you think of a company that has been successful at both?

Cost leadership and differentiation strategies typically require a different set of core competencies and a different value chain structure. Cost leadership depends on the firm's ability to capture economies of scale, scope, and learning in its operations. These economies are complemented by efficient production, simpler design, lower input costs, and more efficient organizational structures. Together, these core competencies allow the firm to be the low cost producer in the market. On the other hand, differentiation tends to be expensive. Firms differentiate their products and services through superior quality, variety, service, delivery, timing, image, appearance, or reputation. Firms achieve this differentiation through investment in research and development, engineering, training, or marketing. Thus, it is the rare firm that can provide differentiated products at the lowest cost. Companies that attempt to implement both strategies often do neither well and as a result suffer in the marketplace. Differentiation exerts upward pressure on firm costs while one of the easiest sources of cost reduction is reducing product or service complexity which leads to less differentiation.

Question 11.

Many consultants are advising diversified companies in emerging markets, such as India, Korea, Mexico, and Turkey, to adopt corporate strategies proven to be of value in advanced economies, like the U.S. and Western Europe. What are the pros and cons of this advice?

Economic theory suggests that the optimal level of diversification depends on the relative transaction costs of performing activities inside or outside the firm. A focus on core businesses, as is popular in advanced economies, is economically efficient if markets, such as capital, product, and labor markets, work well. However, market failures in emerging economies are a good reason to choose for diversification. For example, in some emerging economies, information problems prevent companies from raising capital at economically efficient rates in public capital markets. Instead, these companies rely strongly on internal sources of financing. Because subsidiaries of diversified companies can cross-subsidize each other, diversification is necessary in emerging markets to create and benefit from internal capital markets. Similarly, large diversified companies in emerging economies can benefit from having internal labor markets.

Problem 1. The European Airline Industry

1. *Evaluate how the rivalry among existing firms has developed after 2004.*
 2. *Evaluate the influence of rising fuel prices on the AEA airlines' profitability between 2003 and 2006. If fuel prices had not increased after 2003, what would have been the pre-interest breakeven load factor in 2006 (assuming all other factors constant)?*
 3. *During the period examined, some airlines started to charge fuel surcharges to their customers. For example, late 2007 KLM charged its customers €27 on European flights and €80 on intercontinental flights. Other airlines had similar surcharges. How do such practices affect your answer to question 2?*
 4. *The operating margins of the AEA airlines became positive, on average, in 2004 and gradually improved thereafter. What do you think are the most important drivers behind this development? (Also consider your answers to questions 2 and 3.)*
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1. As described in the chapter, the primary drivers of rivalry among existing airlines are (a) industry growth, (b) concentration, (c) differentiation and switching costs, and (d) excess capacity. The AEA statistics illustrate that during the period 2004 – 2014, these drivers developed as follows:
 - a. Industry growth. During 1995 – 2004, industry growth averaged 5 percent. The average growth in revenue passenger kilometers between 2004 and 2014 was 4.2 percent. This growth rate is similar to the industry growth rate prior to 2004, a period in which the rivalry among European airlines was intense. In 2013/2014, the growth in revenue passenger kilometers approached rates of 2 and 3 percent, respectively, suggesting that industry growth has not helped in achieving a reduction in rivalry.
 - b. Concentration. The market share of the four largest AEA airlines increased significantly during 2004 – 2014, from around 65 percent to around 80 percent, suggesting that industry concentration has increased. This trend is consistent with the idea of consolidation (i.e., mergers and acquisitions) in the industry. Increased consolidation (in combination with capacity reductions) helps to reduce competition.
 - c. Differentiation and switching costs. The statistics do not directly indicate how differentiation and switching costs have developed during the period 2004 – 2014. However, the statistics do show that the break-even load factor of two large AEA airlines has gradually increased to almost 85 percent. Given the average 2014 load factor of 80.6 percent, it appears that the airlines' operating margins are close to (or less than) zero, leaving little opportunity for the airlines to compete on anything other than price. The improvement in average load factors observed during the period may suggest that airlines

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have found ways to differentiate and reduce price competition. However, margin improvements that result from such efficiency improvements are offset by the substantial increase in fuel costs.

- d. Excess capacity. The passenger load factor has increased significantly, suggesting that airlines have been able to substantially reduce their excess capacity.

In sum, the rivalry among European airlines appears has been positively affected by an increase in industry concentration as well as a reduction in excess capacity; however, increased fuel costs have increased airlines' break-even factor and hence contributed to maintaining the degree of rivalry in the industry. The observed growth in discount airlines' RPKs during the period, which ranges from 8 to 13 percent on an annual basis, illustrates that discounters' growth further contributed to an increase in rivalry within the industry.

2. Fuel costs represent an increasingly bigger portion of total costs. The European airlines have been able to keep their costs per kilometer at acceptable levels by achieving efficiency improvements that partly offset the increase in fuel costs. The change in the (adjusted) pre-interest break-even factor nicely illustrates this. This factor is defined as cost per kilometer / revenue per kilometer. In 2014, fuel costs per available seat kilometer were 2.25€/ask ($28.6\% \times 7.87\text{€/ask}$); in 2004, these costs were 1.07€/k. If fuel prices had not increased after 2004, the pre-interest breakeven load factor in 2014 would have been: $(7.87 - [2.25 - 1.07]) / 9.31 = 71.9\%$ versus the actual percentage of 84.5%. In other words, in the absence of fuel cost increases, airlines would have needed close to 12.5 percent fewer passengers to break even.
3. These surcharges increase the revenue per passenger kilometer ratio by, presumably, around 1.5 €cents per kilometer. The adjusted pre-interest breakeven factor would be: $(7.87 - [2.25 - 1.07]) / (9.31 - 1.5) = 85.6\%$ versus the actual percentage of 84.5%. Hence, after (crudely) adjusting the factor for fuel surcharges, it appears that the European airlines have not really become more efficient during the period 2004 – 2014 or, alternatively, that price reductions have offset the positive effects of efficiency improvements.