Chapter 2
Financial Goals and Corporate Governance

■ Questions

2-1. Ownership of the Business. How does ownership alter the goals and governance of a business?

The return to a shareholder in a publicly traded firm combines current income in the form of dividends and capital gains from the appreciation of share price:

$$\text{Shareholder return} = \frac{\text{Dividend}}{\text{Price}_1} + \frac{\text{Price}_2 - \text{Price}_1}{\text{Price}_1}$$

where the initial price, P_1, is equivalent to the initial investment by the shareholder, and P_2 is the price of the share at the end of period. The shareholder theoretically receives income from both components. For example, over the past 50 or 60 years in the U.S. marketplace, a diversified investor may have received a total average annual return of 14%, split roughly between dividends, 2%, and capital gains, 12%.

Management generally believes it has the most direct influence over the first component—the *dividend yield*. Management makes strategic and operational decisions that grow sales, generate profits, and then distributes those profits to ownership in the form of dividends. *Capital gains*— the change in the share price as traded in the equity markets—is much more complex, and reflects many forces that are not in the direct control of management. Despite growing market share, profits, or any other traditional measure of business success, the market may not reward these actions directly with share price appreciation.

A privately held firm has a much simpler shareholder return objective function: maximize current and sustainable income. The privately held firm does not have a share price (it does have a value, but this is not a definitive market-determined value in the way in which we believe markets work). It therefore simply focuses on generating current income, dividend income, to generate the returns to its ownership. If the privately held ownership is a family, the family may also place a great emphasis on the ability to sustain those earnings over time while maintaining a slower rate of growth which can be managed by the family itself.

2-2. Separation of Ownership and Management. Why is this separation so critical to the understanding of how businesses are structured and led?

The field of *agency theory* is the study of how shareholders can motivate management to accept the prescriptions of the Shareholder Wealth Maximization (SWM) model. For example, liberal use of stock options should encourage management to think like shareholders. Whether these inducements succeed is open to debate. However, if management deviates too much from SWM objectives of working to maximize the returns to the shareholders—the board of directors should replace them. In cases where the board is too weak or ingrown to take this action, the discipline of the equity markets could do it through a takeover. This discipline is made possible by the one-share-one-vote rule that exists in most Anglo-American markets.

2-3.   Corporate Goals: Shareholder Wealth Maximization. Explain the assumptions and objectives of the shareholder wealth maximization model.

The Anglo-American markets are characterized by a philosophy that a firm's objective should be to *maximize shareholder wealth*. Anglo-American is defined to mean the United States, United Kingdom, Canada, Australia, and New Zealand. This theory assumes that the firm should strive to maximize the return to shareholders—those individuals owning equity shares in the firm, as measured by the sum of capital gains and dividends, for a given level of risk. This in turn implies that management should always attempt to minimize the risk to shareholders for a given rate of return.

2-4.   Corporate Goals: Stakeholder Wealth Maximization. Explain the assumptions and objectives of the stakeholder wealth maximization model.

Continental European and Japanese markets are characterized by a philosophy that all of a corporation's stakeholders should be considered, and the objective should be to *maximize corporate wealth*. Thus a firm should treat shareholders on a par with other corporate stakeholders, such as management, labor, the local community, suppliers, creditors, and even the government. The goal is to earn as much as possible in the long run, but to retain enough to increase the corporate wealth for the benefit of all. This model has also been labeled the *stakeholder capitalism model*.

2-5.   Corporate Governance. Define the following terms:

a.   **Corporate governance**   Corporate governance is the control of the firm. It is a broad operation concerned with choosing the board of directors and with setting the long-run objectives of the firm. This means managing the relationship between various stakeholders in the context of determining and controlling the strategic direction and performance of the organization. Corporate governance is the process of ensuring that managers make decisions in line with the stated objectives of the firm.

Management of the firm concerns implementation of the stated objectives of the firm by professional managers employed by the firm. In theory managers are the employees of the shareholders and can be hired or fired as the shareholders, acting through their elected board, may decide. *Ownership* of the firm is that group of individuals and institutions that own shares of stock and that elected the board of directors.

b.   **The market for corporate control**   The relationship among stakeholders used to determine and control the strategic direction and performance of an organization is termed *corporate governance*. The corporate governance of the organization is therefore the way in which order and process is established to ensure that decisions are made and interests are represented—for all stakeholders—properly.

c.   **Agency theory**   In countries and cultures in which the ownership of the firm has continued to be an integral part of management, agency issues and failures have been less a problem. In countries like the United States, in which ownership has become largely separated from management (and widely dispersed), aligning the goals of management and ownership is much more difficult.

d.   **Stakeholder capitalism**   The philosophy that all of a corporation's stakeholders should be considered, and the objective should be to *maximize corporate wealth*. Thus a firm should treat shareholders on a par with other corporate stakeholders, such as management, labor, the local community, suppliers, creditors, and even the government. The goal is to earn as much as possible in the long run, but to retain enough to increase the corporate wealth for the benefit of all. This model has also been labeled the *stakeholder capitalism model*.

2-6.   Operational Goals. What should be the primary operational goal of an MNE?

Financial goals differ from strategic goals in that the former focus on money and wealth (such as the present value of expected future cash flows). Strategic goals are more qualitative—operating objectives such as growth rates and/or share-of-market goals.

Trident's strategic goals are the setting of such objectives as degree of global scope and depth of operations. In what countries should the firm operate? What products should be made in each country? Should the firm integrate its international operations or have each foreign subsidiary operate more or less on its own? Should it manufacture abroad through wholly owned subsidiaries, through joint ventures, or through licensing other companies to make its products? Of course, successful implementation of these several strategic goals is undertaken as a means to benefit shareholders and/or other stakeholders.

Trident's financial goals are to maximize shareholder wealth relative to a risk constraint and in consideration of the long-term life of the firm and the long-term wealth of shareholders. In other words, wealth maximization does not mean short-term pushing up share prices so executives can execute their options before the company crashes—a consideration that must be made in the light of the Enron scandals.

2-7.   Knowledge Assets. "Knowledge assets" are a firm's intangible assets, the sources and uses of its intellectual talent—its competitive advantage. What are some of the most important "knowledge assets" that create shareholder value?

The definition of *corporate wealth* is much broader than just financial wealth. It includes the firm's technical, market, and human resources. This means that an MNE that believes it must close a manufacturing facility in Stuttgart, Germany, and shift its operations to Penang, Malaysia, may not do so without considering the employment and other social impacts on the Stuttgart community. As one study put it, "[Corporate wealth] goes beyond the wealth measured by conventional financial reports to include the firm's market position as well as the knowledge and skill of its employees in technology, manufacturing processes, marketing and administration of the enterprise."

2-8.   Labor Unions. In Germany and Scandinavia, among other countries, labor unions have representation on boards of directors or supervisory boards. How might such union representation be viewed under the shareholder wealth maximization model compared to the corporate wealth maximization model?

Labor union representation required by statute is an example of governmental direction toward the corporate wealth maximization (CWM) model, in that such a requirement is intended to make the board responsive to stakeholders other than owners. Under the CWM model, such a statute would be viewed favorably, while under the SWM model such a statute would be viewed as undue interference in the right of owners to manage the assets into which they alone have invested money.

2-9.   Interlocking Directorates. In an interlocking directorate, members of the board of directors of one firm also sit on the board of directors of other firms. How would interlocking directorates be viewed by the shareholder wealth maximization model compared to the corporate wealth maximization model?

Interlocking directorates allow firms, via intertwined management and governance, to *cooperate* and/or *collude*. A simple answer along corporate wealth maximization (CWM) or stockholder wealth maximization (SWM) lines is not so easy here. Many countries characterized by the CWM model, such as Germany and Japan, allow interlocking directorates so that "all stakeholders" will be represented. SWM countries, such as the United States, often prohibit interlocking directorates on the premise they may stifle unfettered competition because decision may be based on friendships, influence, or promises of reciprocity. "Crony capitalism" is a term often used to describe economic systems where decisions are made on the basis of personal or familial relationships.

2-10.   Leveraged Buyouts. A leveraged buyout is a financial strategy in which a group of investors gain voting control of a firm and then liquidate its assets in order to repay the loans used to purchase the firm's shares. How would leveraged buyouts be viewed by the shareholder wealth maximization model compared to the stakeholder wealth maximization model?

A leveraged buyout is perceived as generally irresponsible in countries that believe in corporate wealth maximization (CWM). The liquidation of assets, often at market prices that do not reflect the value of the activity to workers and their communities, is not consistent with the CWM philosophy. Those who believe in shareholder wealth maximization (SWM) argue that if the selling shareholders—the initial owners of the firm—are paid a price for their shares that is higher than the market as a result of the leveraged buyout, the market forces, which are so important for competition and growth, are allowed to work. Additionally, the selling shareholders now have more capital to freely invest in other ventures, in turn creating more jobs and attendant benefits.

2-11.   High Leverage. How would a high degree of leverage (debt/assets) be viewed by the shareholder wealth maximization model compared to the stakeholder wealth maximization model?

High leverage increases both the risk of corporate bankruptcy and the possibility of a greater rate of return for shareholders. The corporate wealth maximization (CWM) model looks askance at higher leverage because any benefits will flow only to shareholders, while other stakeholders (such as labor) will bear the brunt of the risk should the company go bankrupt because of the fixed financial costs of disproportionately high debt. Under the shareholder wealth maximization (SWM) model, the decision on the degree of leverage resides with the owners as represented by the board, and the trade-off between risk and return is presumably based on their risk-return preferences. Under modern financial theory, the risk-return attributes of a single company are meaningful only in the context of the contribution that company makes to a diversified portfolio.

2-12.   Conglomerates. Conglomerates are firms that have diversified into unrelated fields. How would a policy of conglomeration be viewed by the shareholder wealth maximization model compared to the stakeholder wealth maximization model?

Conglomerates created to achieve diversification are presumably looked upon more favorably in countries tied to the *corporate wealth maximization* (CWM) model because the greater size of the conglomerate means the business entity in its entirety is larger, i.e., has greater wealth and is possibly less vulnerable to competition or takeover by another firm. Worker jobs are safer. An offsetting argument is that firms in CWM countries with interlocking directorates can act as if they were conglomerates, even though structurally they are not.

Under the *shareholder wealth maximization* (SWM) model, conglomerates created to achieve diversification are formed only when the owners alone believe that synergies will come about because of the consolidation. Critics of conglomerates in SWM countries point out that shareholders can achieve unique diversification in their own portfolios without conglomerate diversification being "forced" upon them. Additionally an argument is sometimes made that management skilled in one type of economic activity may be quite incapable in another type of activity, and that consequently conglomerates may perform less well overall than would a portfolio composed of the no-longer-existing separate constituent companies.

2-13.   **Risk.** How is risk defined in the shareholder wealth maximization model compared to the stakeholder wealth maximization model?

Shareholder Wealth Maximization (SWM) firms usually consider risk as a constraint on seeking to maximize current earnings. In an operational context for managers, *risk* is usually taken to be the expected variability for earnings over a period of future years. In a more specific portfolio sense for investors (as distinct from managers), risk in SWM countries is the added systematic risk that the firm's shares bring to a diversified portfolio. *Unsystematic risk,* the risk of the individual security, can be eliminated through portfolio diversification by the investors. Thus *unsystematic risk* is not be a prime concern for management unless it increases the prospect of bankruptcy. *Systematic risk,* the risk of the market in general, cannot be eliminated.

Corporate Wealth Maximization (CWM) firms define risk in a much more qualitative sense. The term "patient capital" is sometimes used to imply that only performance over a very long term is of concern. In addition, the much greater array of stakeholders with divergent interests implies that some sort of consensus must be reached before a decision is made that might negatively impact one of the set of stakeholders—even if other sets of stakeholders gain.

2-14.   **Stock Options.** How would stock options granted to a firm's management and employees be viewed by the shareholder wealth maximization model compared to the stakeholder wealth maximization model?

Stock options are used in Shareholder Wealth Maximizing firms to align the interests of managers with those of shareholders, in the belief that those managers will then make decisions which will enhance the wealth of all stockholders, including those executives. Of course, those executives are punished (financially) if the firm they manage fails to increase in market value.

Stock options to managers in Stakeholder Wealth Maximizing firms are unlikely, because they seek to cause managers to act to benefit the shareholders without, necessarily, benefitting the array of other stakeholders in the firm.

2-15.   **Shareholder Dissatisfaction.** If shareholders are dissatisfied with their company what alternative actions can they take?

Disgruntled shareholders may:
a.   *Remain quietly disgruntled*. This puts no pressure on management to change its ways under both the Shareholder Wealth Maximization (SWM) model and the Corporate Wealth Maximization (CWM) model.
b.   *Sell their shares*. Under the SWM model, this action (if undertaken by a significant number of shareholders) drives down share prices, making the firm an easier candidate for takeover and the probable loss of jobs among the former managers. Under the CWM model, management can more easily ignore any drop in share prices.

c. *Change management.* Under the one-share, one-vote procedures of the SWM model, a concerted group of shareholders can vote out existing board members if they fail to change management practices. This usually takes the form of the board firing the firm's president or chief operating officer. Cumulative voting, which is a common attribute of SWM firms, facilitates the placing of minority stockholder representation on the board. If, under the CWM model, different groups of shareholders have voting power greater than their proportionate ownership of the company, ousting of directors and managers is more difficult.

d. *Initiate a takeover.* Under the SWM model it is possible to accumulate sufficient shares to take control of a company. This is usually done by a firm seeking to acquire the target firm making a tender offer for a sufficient number of shares to acquire a majority position on the board of directors. Under the CWM model acquisition of sufficient shares to bring about a takeover is much more difficult, in part because non-shareholder stakeholder wishes are considered in any board action. (One can argue as to whether the long-run interests of non-shareholding stakeholders are served by near-term avoidance of unsettling actions.) Moreover, many firms have disproportionate voting rights because of multiple classes of stock, thus allowing entrenched management to remain.

2-16. Dual Classes of Common Stock. In many countries it is common for a firm to have two or more classes of common stock with differential voting rights. In the United States the norm is for a firm to have one class of common stock with one-share-one-vote. What are the advantages and disadvantages of each system?

A variety of arguments exist as to why Europeans allow this differential in voting rights. In some countries it is believed that "ordinary" individual shareholders are not qualified to influence business decisions. The average share-owning individual investor is presumed to be neither business-oriented nor knowledgeable about the business and prospects for the firm in which shares are owned. Hence they are not sufficiently informed to be trusted with influence of the selection of directors or other important corporate issues. Dual classes of stock allow one class (the "informed professional") to control the company while the second class (the "uninformed amateur") to provide capital and reap ownership rewards but not have a chance to "mess up the company" by having power over decisions.

A second reason for dual classes of stock is that takeover bids by other companies are made more difficult because the acquiring company would have to purchase the class of stock that has voting power, and that class is usually held or controlled by a foundation, a family, or existing management. Hence the job tenure of existing management and ownership is made more secure, even if they do not perform well and the value of shares in the market drops.

2-17. Emerging Markets Corporate Governance Failures. It has been claimed that failures in corporate governance have hampered the growth and profitability of some prominent firms located in emerging markets. What are some typical causes of these failures in corporate governance?

Causes include lack of transparency, poor auditing standards, cronyism, insider boards of directors (especially among family-owned and operated firms), and weak judicial systems.

2-18. Emerging Markets Corporate Governance Improvements. In recent years emerging market MNEs have improved their corporate governance policies and become more shareholder-friendly. What do you think is driving this phenomenon?

It is driven by the need to access global capital markets. The depth and breadth of capital markets is critical to growth. Country markets which have had relatively slow growth or have industrialized rapidly utilizing neighboring capital markets, may not form large public equity market systems. Without significant public trading of ownership shares, high concentrations of ownership are preserved and few disciplined processes of governance developed.

2-19.   Developed Markets Corporate Governance Failures. What have been the main causes of recent corporate governance failures in the United States and Europe?

In each case, prestigious auditing firms, such as Arthur Andersen, missed the violations or minimized them possibly because of lucrative consulting relationships or other conflicts of interest. Moreover, security analysts and banks urged investors to buy the shares and debt issues of these and other firms that they knew to be highly risky or even close to bankruptcy. Even more egregious, most of the top executives that were responsible for the mismanagement that destroyed their firms, walked away (initially) with huge gains on shares sold before the downfall, and even overly generous severance payments.

2-20.   Family Ownership. What are the key differences in the goals and motivations of family ownership of the business as opposed to the widely held publicly traded business?

A privately held firm has a much simpler shareholder return objective function: maximize current and sustainable income. The privately held firm does not have a share price (it does have a value, but this is not a definitive market-determined value in the way in which we believe markets work). It, therefore, simply focuses on generating current income, dividend income, to generate the returns to its ownership. If the privately held ownership is a family, the family may also place a great emphasis on the ability to sustain those earnings over time while maintaining a slower rate of growth that can be managed by the family itself. It is therefore critical that ownership and ownership's specific financial interests be understood from the very start if we are to understand the strategic and financial goals and objectives of management.

2-21.   Value of Good Governance. Do markets appear to be willing to pay for good governance?

A recent McKinsey study surveyed over 200 institutional investors as to the value they placed on good governance. The survey results presented in Exhibit 2.4 quantify good governance in the premium that institutional investors would be willing to pay for companies with good governance within specific country-markets. Although this is not exactly equivalent to saying who has "good" or "bad" corporate governance globally, it does provide some insight into which countries good governance is considered "scarce" according to institutional investors. It is again important to note that most of the emerging market nations have relatively few publicly traded companies even today.

2-22.   Corporate Governance Reform. What are the primary principles behind corporate governance reform today? Are these culturally specific in your opinion?

Within the United States and United Kingdom, the main corporate governance problem is the one treated by *agency theory*: with widespread share ownership, how can a firm align management's interest with that of the shareholders? Since individual shareholders do not have the resources or the power to monitor management, the U.S. and U.K. markets rely on regulators to assist in the agency theory monitoring task.

Outside the United States and United Kingdom, large controlling shareholders are in the majority (including Canada). They are able to monitor management in some ways better than regulators. However, controlling shareholders pose a different agency problem. How can minority shareholders be protected against the controlling shareholders?

In recent years reform in the United States and Canada has been largely regulatory. Reform elsewhere has been largely adoption of principles rather than stricter legal regulations. The principles approach is softer, less costly, and less likely to conflict with other existing regulations.

Problem 2.1 Suvari Returns

If the share price of Suvari, a Florida-based shipping firm, rises from $16.00 to $18.00 over a one year period, what was the rate of return to the shareholder if:

Assumptions		Value
Share price, P1	$	16.00
Share price, P2	$	18.00
Dividend paid, D2	$	-

a. If the company paid no dividend (plugging zero in for the dividend):

Return = (P2 - P1 + D2) / (P1)   **12.500%**

b. And if the company paid a $1.00 dividend:

Assumptions		Value
Share price, P1	$	16.00
Share price, P2	$	18.00
Dividend paid, D2	$	1.00

Total shareholder return, including dividends, is: **18.750%**

Return = (P2 - P1 + D2) / (P1)

c. Assuming it did pay the dividend, separate the shareholder's total return into its two components -- the dividend yield and the capital gain.

Dividend yield is D2 / P1   **6.250%**

Capital gain is (P2 - P1) / (P1)   **12.500%**

Total shareholder return is the sum of the two   **18.750%**

Problem 2.2 Fong's Choices

Alexander Fong, a prominent investor, is evaluating investment alternatives. If he believes an individual equity will rise in price from $62 to $74 in the coming one year period, and the share is expected to pay a dividend of $2.25 per share, and he expects at least a 12% rate of return on an investment of this type, should he invest in this particular equity?

Assumptions		Value
Share price, P1	$	62.00
Share price, P2	$	74.00
Dividend paid, D2	$	2.25
b. Total shareholder return for the period is		22.98%

Return = (P2 - P1 + D2) / (P1)

The share's expected return of 22.98% far exceeds the required return by Mr. Fong of 12%. He should therefore make the investment.

Problem 2.3 Legrand Returns (A)

Tony Varga is a New York based investor. He has been following his investment in 100 shares of Legrand, a French firm which went public in March of 2005, very closely. When he purchased his 100 shares, at a price of €19.75 per share, the euro was trading at $1.2250/€. Currently the share is trading at €25.28 per share, and the dollar has fallen to $1.4280/€.

Assumptions	Share Price	Exchange Rate (US$/€)
Prices when Tony purchased his shares	€ 19.75	1.2250
Prices Tony sees in the market today	€ 25.28	1.4280

a. If Tony sold his shares today, what is the percentage change in the share price he would receive?

Return = (P2 - P1) / (P1)   `28.00%`

b. What has been the percentage change in the value of euro versus the dollar over this same period?

Percentage change (US$/€) = (S2 - S1) / (S1)   `16.57%`

c. What would be the total return Tony would earn on his shares if he sold them at these rates?

If he sold his shares today, it would yield the following amount in euros: **€ 2,528.00**
These euros would in turn be worth the following in US dollars: **$3,609.98**

The amount he invested in the beginning can be determined by tracing backwards the cost of 100 shares of Legrand at the original price, and then finding what that amount would have been in US dollars.

Original investment (cost) of 100 shares in Legrand in euros: **€ 1,975.00**
Original investment (cost) of shares in US dollars, calculated at original spot rate: **$2,419.38**

The rate of return on Tony's investment, proceeds divided by initial investment: `49.21%`
(Remember to subtract 1, the value of the initial investment, when calculating return.)

Alternatively, the total return which Tony could earn if he sold his shares now, can be calculated by finding the compound rate of return of the change in the share price and the change in the value of the euro.

Percentage return = (1 + percent change in share price) x (1 + percent change in spot rate) - 1

Percentage return = (1 + .2800) x (1 + .1265) - 1 =   `49.21%`

Problem 2.4 Legrand Returns (B)

Tony Varga chose not to sell his shares at the time described in the previous problem. He waited, expecting the share price to rise further after the announcement of quarterly earnings. His expectations proved correct, the share price rose to €29.46 per share after the announcement. He now wishes to recalculate his returns at this point in time. The current spot exchange rate is $1.1840/€.

Assumptions	Share Price	Exchange Rate (US$/Euro)
Prices when Tony purchased his shares	€ 19.75	1.2250
Prices Tony sees in the market today	€ 29.46	1.1840

a. If Tony sold his shares today, what is the percentage change in the share price he would receive?

Return = (P2 - P1) / (P1) | 49.16% |

b. What has been the percentage change in the value of euro versus the dollar over this same period?

Percentage change (US$/euro) = (S2 - S1) / (S1) | -3.35% |

Note that the dollar has now actually appreciated versus the euro from Tony's initial purchase date. This results in a negative percentage change in the value of the euro, and therefore a negative percentage change.

c. What would be the total return Tony would earn on his shares if he sold them at these rates?

| If he sold his shares today, it would yield the following amount in euros: | € 2,946.00 |
| These euros would in turn be worth the following in US dollars: | $3,488.06 |

The amount he invested in the beginning can be determined by tracing backwards the cost of 100 shares of Legrand at the original price, and then finding what that amount would have been in US dollars.

| Original investment (cost) of 100 shares in Legrand in euros: | € 1,975.00 |
| Original investment (cost) of shares in US dollars, calculated at original spot rate: | $2,419.38 |

The rate of return on Tony's investment, proceeds divided by initial investment: | 44.17% |
(Remember to subtract 1, the value of the initial investment, when calculating return.)

Alternatively, the total return which Tony could earn if he sold his shares now, can be calculated by finding compound rate of return of the change in the share price and the change in the value of the euro.

Percentage return = (1 + percent change in share price) x (1 + percent change in spot rate) - 1

Percentage return = (1 + .2800) x (1 + .1265) - 1 = | 44.17% |

Ironically, although the share price has risen considerably more, the fall in the value of the euro has offset that gain, resulting in nearly identical total return as in the previous problem.

Problem 2.5 Legrand Returns (C)

Using the same prices and exchange rates as in the previous problem, Legrand (B), what would be the total return on the Legrand investment by Raid Gaule, a Paris-based investor?

Assumptions	Share Price	Exchange Rate (US$/Euro)
Prices when Tony purchased his shares	€ 19.75	1.2250
Prices Tony sees in the market today	€ 29.46	1.1840

There is no currency risk, therefore Jacque earns rate of return on the share price change, the capital gain on the Legrand shares alone.

Return = (P2 - P1) / (P1)   **49.16%**

Problem 2.6 Microsoft's dividend

In January 2003 Microsoft announced that it would begin paying a dividend of $0.16 per share. Given the following share prices for Microsoft stock in the recent past, how would a constant dividend of $0.16 per share per year have changed the company's return to its shareholders over this period?

Assumptions	Closing Share Price		If Dividend Paid		Shareholder Return (without Div)	Shareholder Return (with Div)
1998 (January 2)	$	131.13				
1999 (January 4)	$	141.00	$	0.16	7.53%	7.65%
2000 (January 3)	$	116.56	$	0.16	-17.33%	-17.22%
2001 (January 2)	$	43.38	$	0.16	-62.78%	-62.65%
2002 (January 2)	$	67.04	$	0.16	54.54%	54.91%
2003 (January 2)	$	53.72	$	0.16	-19.87%	-19.63%

a. Average shareholder return for the period is   **-7.58%**
   Return = (P2 - P1) / (P1)

b. Total shareholder return if Microsoft had paid a constant dividend: **-7.39%**
   Return = (P2 - P1 + D) / (P1)

Problem 2.7 Powlitz Manufacturing (A)

Dual classes of common stock are common in a number of countries. Assume that Powlitz Manufacturing has the following capital structure at book value. The A-shares each have 10 votes, the B-shares each have one vote per share.

Powlitz Manufacturing	Local Currency (millions)	Votes per share	Total Votes
Long-term debt	200		
Retained earnings	300		
Paid-in common stock: 1 million A-shares	100	10.00	1,000
Paid-in common stock: 4 million B-shares	400	1.00	400
Total long-term capital	1,000		1,400

a. What proportion of the total long-term capital has been raised by A-shares?

A-shares / Total long-term capital   100 / 1,000   10.00%

b. What proportion of voting rights is represented by A-shares?

A-share total votes / Total Votes   1,000 / 1,400   71.43%

c. What proportion of the dividends should the A-shares receive?

A-shares in local currency / Total equity shares in local currency   100 / (100 + 400)   20.00%

Problem 2.8 Powlitz Manufacturing (B)

Assuming all of the same debt and equity values for Powlitz Manufacturing in problem 7, with the sole exception that both A-shares and B-shares have the same voting rights, one vote per share:

Powlitz Manufacturing	Local Currency (millions)	Votes per share	Total Votes
Long-term debt	200		
Retained earnings	300		
Paid-in common stock: 1 million A-shares	100	1.00	100
Paid-in common stock: 4 million B-shares	400	1.00	400
Total long-term capital	1,000		500

a. What proportion of the total long-term capital has been raised by A-shares?

A-shares / Total long-term capital   100 / 1,000   **10.00%**

b. What proportion of voting rights is represented by A-shares?

A-share total votes / Total Votes   100/500   **20.00%**

c. What proportion of the dividends should the A-shares receive?

A-shares in local currency / Total equity shares in local currency   100 / (100 + 400)   **20.00%**

Problem 2.9 Pharmaceutical Acquisitions

During the 1960s many conglomerates were created by a firm enjoying a high price/earnings ratio (P/E). They then used their highly-valued stock to acquire other firms that had lower P/E ratios, usually in unrelated domestic industries. These conglomerates went out of fashion during the 1980s when they lost their high P/E ratios, thus making it more difficult to find other firms with lower P/E ratios to acquire.

During the 1990s, the same acquisition strategy was possible for firms located in countries where high P/E ratios were common compared to firms in other countries where low P/E ratios were common. Consider the hypothetical firms in the pharmaceutical industry shown in the following table.

Pharm-USA wants to acquire Pharm-Italy. It offers 5,500,000 shares of Pharm-USA, with a current market value of $220,000,000 and a 10% premium on Pharm-Italy's shares, for all of Pharm-Italy's shares.

Company	P/E ratio	Number of shares	Market value per share	Earnings	EPS	Total Market Value
Pharm-Italy	20	10,000,000	$ 20.00	$ 10,000,000	$ 1.00	$ 200,000,000
Pharm-USA	40	10,000,000	$ 40.00	$ 10,000,000	$ 1.00	$ 400,000,000

Rate of exchange -- Pharm-USA shares offered:

5,500,000

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a. How many shares would Pharm-USA have outstanding after the acquisition of Pharm-Italy?

10,000,000 + 5,500,000 → **15,500,000**

Because Pharm-Italy shares are worth $20 per share, they are only worth one-half the value per share of Pharm-USA's $40 per share. So, on a straight exchange, 1 Pharm-USA share is worth 2 Pharm-Italy shares.
But, Pharm-USA also needs to pay a premium for gaining control of Pharm-Italy, so it pays an additional 10% over market.

So, Pharm-USA pays: 10 million divided by 2 x (1 + 10% premium)

b. What would be the consolidated earnings of the combined Pharm-USA and Pharm-Italy?

Pharm-Italy earnings + Pharm-USA earnings → **$ 20,000,000**

c. Assuming the market continues to capitalize Pharm-USA's earnings at a P/E ratio of 40, what would be the new market value of Pharm-USA?

P/E x Consolidated earnings = 40 x $20,000,000 → **$ 800,000,000**

d. What is the new earnings per share of Pharm-USA?

$20,000,000 / 15,500,000 shares → **$ 1.29**

e. What is the new market value of a share of Pharm-USA?

New market value / Total shares outstanding = $800,000,000 / 15,500,000 → **$ 51.61**

f. How much did Pharm-USA's stock price increase?

Share price rose from $40.00 to $51.61. → **$ 11.61**

Percentage increase → **29.03%**

g. Assume that the market takes a negative view of the acquisition and lowers Pharm-USA's P/E ratio to 30. What would be the new market price per share of stock? What would be its percentage loss?

New market value = Total earnings x P/E = $20,000,000 x 30 → **$ 600,000,000**

New market price per share = total market value / shares outstanding = → **$ 38.71**

Percentage loss to original Pharm-USA shareholders = ($38.71 - $40.00)/ ($40.00) → **-3.23%**

Problem 2.10   Corporate Governance: Overstating Earnings

A number of firms, especially in the United States, have had to lower their previously reported earnings due to accounting errors or fraud. Assume that Pharm-USA (previous problem) had to lower their earnings to $5,000,000 from the previously reported $10,000,000. What might be its new market value prior to the acquisition? Could it still do the acquisition?

Company	P/E ratio	Number of shares	Market value per share	Earnings	EPS	Total Market Value
Pharm-Italy	20	10,000,000	$ 20.00	$ 10,000,000	$ 1.00	$ 200,000,000
Pharm-USA	40	10,000,000	$ 20.00	$ 5,000,000	$ 1.00	$ 200,000,000

If earnings were lowered to $5 million from the previously reported $10 million, could Pharm-USA still do the deal?

To do the deal, Pharm-Italy's shareholders need to be paid their market value plus a 10% premium, or $ 220,000,000

At new market rates for Pharm-USA, this would require the offer of ($220 million/$20 per share)   11,000,000   shares.

This 11 million shares would exceed Pharm-USA's existing shares outstanding, effectively giving Pharm-Italy control.

Therefore the acquistion would probably not take place.

Problem 2.11 Pacific Precision (A): European Sales

Pacific Precision is a Hong Kong-based exporter of machine tools. The company's European sales director, Jacque
Mayal, has been criticized of late for his performance. He disagrees, arguing that sales in Europe have grown steadily in
recent years. Who is correct?

Analysis of European Sales	2002	2003	2004
Total net sales, HK$	171,275	187,500	244,900
Percent of total sales from Europe	48%	44%	39%
Total European sales, HK$	82,212	82,500	95,511
Average exchange rate, HK$/€	7.4	8.5	9.4
Total European Sales, euros (€)	€ 11,110	€ 9,706	€ 10,161
Growth rate of European sales		-12.6%	4.7%

The analysis of European sales indicates that when the reported (HK$) value of European sales is remeasured back into
euros at the average exchange rate of HK$/€ each year, actual European sales first shrunk in 2003, then grew in 2004.
But, all things considered, sales in 2004 were still below those of 2002.

Problem 2.12 Pacific Precision (B): Japanese Yen Debt

Pacific Precision is a Hong Kong-based exporter of machine tools. The company borrowed Japanese yen under a longterm loan agreement several years ago. The company's new CFO believes, however, that what was originally thought to have been relatively "cheap debt" is no longer true. What do you think?

Analysis of Japanese yen-Denominated Debt	2002	2003	2004
Annual yen payments on debt agreement (¥)	12,000,000	12,000,000	12,000,000
Average exchange rate, ¥/HK$	15.9	14.7	13.7
Annual yen debt service, HK$	754,717	816,327	875,912

The analysis of debt service payments on the Japanese yen-denominated long-term loan indicates that for the past two years the effective cost of repaying the loan, in Hong Kong dollars, has been steadily rising as the Hong Kong dollar has fallen in value against the Japanese yen. In fact, the Japanese yen debt has not proven to be as cheap as thought.

Problem 2.13 Chinese Sourcing and the Yuan

Harrison Equipment of Denver, Colorado purchases all of its hydraulic tubing from manufacturers in mainland China. The company has recently completed a corporate-wide initiative in six sigma/lean manufacturing. Completed oil field hydraulic system costs were reduced 4% over a one year period, from $880,000 to $844,800. The company is now worried that all of the hydraulic tubing that goes into the systems (making up 20% of their total costs) will be hit by the potential revaluation of the Chinese yuan -- if some in Washington get their way. How would a 12% revaluation of the yuan against the dollar impact total system costs?

Assumptions	Original/Current	Revaluation?	Future?
Total system cost ($)	$880,000.00		
Cost savings from six sigma/lean	4.0%		
Total system cost ($)	$844,800.00		
Hydraulic tubing, % of total	20.0%		
Hydraulic tubing ($)	$168,960.00		$189,235.20

A 12% revaluation of the yuan would be calculated: Yuan 8.28 / (1 + % change)

Exchange rate (yuan/$)	8.28	12.0%	7.39
Hydraulic tubing (yuan)	1,398,988.80		1,398,988.80
Cost increase as a result of revaluation			$20,275.20
Total system cost after revaluation			$865,075.20

a. The revaluation of the Chinese yuan by 12% would completely nullify all of the cost reduction benefits achieved via the six sigma/lean manufacturing initiatives recently completed.

b. The percentage change in the cost of the total hydraulic system can be calculated by multiplying the percentage increase in the exchange rate times the percent of total cost made up by the hydraulic tubing:

Hydraulic tubing, % of total	20.0%
Percent revaluation of the yuan	12.0%
Total system cost impact, percent	2.40%
New total system cost ($)	$865,075.20
Old total system cost ($)	$844,800.00
Percent change	2.40%

Mattel's Global Sales

Mattel (US) achieved significant sales growth in its major international regions between 2001 and 2004. In its filings with the United States Security and Exchange Commission (SEC), it reported what percentage change in regional sales occurred as a result of exchange rate changes.

Mattel's Global Sales

(thousands of US$)	2001 Sales ($)	2002 Sales ($)	2003 Sales ($)	2004 Sales ($)
Europe	$ 933,450	$ 1,126,177	$ 1,356,131	$ 1,410,525
Latin America	471,301	466,349	462,167	524,481
Canada	155,791	161,469	185,831	197,655
Asia Pacific	119,749	136,944	171,580	203,575
Total International	$ 1,680,291	$ 1,890,939	$ 2,175,709	$ 2,336,236
United States	3,392,284	3,422,405	3,203,814	3,209,862
Sales Adjustments	(384,651)	(428,004)	(419,423)	(443,312)
Total Net Sales	$ 4,687,924	$ 4,885,340	$ 4,960,100	$ 5,102,786

Region	Impact of Change in Currency Rates		
	2001-2002	2002-2003	2003-2004
Europe	7.0%	15.0%	8.0%
Latin America	-9.0%	-6.0%	-2.0%
Canada	0.0%	11.0%	5.0%
Asia Pacific	3.0%	13.0%	6.0%

Source: Mattel, Annual Report, 2002, 2003, 2004.

a. What was the percentage change in sales, in US dollars, by region?

b. What was the percentage change in sales by region net of currency change impacts?

c. What was the actual US dollar sales levels, by region, net of currency changes?

d. What relative impact did currency changes have on the level and growth of Mattel's consolidated sales for the 2001 to 2004 period?

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Problem 2.14 Mattel's Global Performance

Mattel (US) achieved significant sales growth in its major international regions between 2001 and 2004. In its filings with the United States Security and Exchange Commission (SEC), it reported what percentage change in regional sales occurred as a result of exchange rate changes.

			Answer to a)		**Answer to b)**
			(1)	**(2)**	**(3)**
			Percent	**Impact of**	**Net**
	2001	**2002**	**Change in**	**Change in**	**Change in**
(thousands of US$)	**Sales ($)**	**Sales ($)**	**Gross Sales**	**Currency Rates**	**Sales**
Europe	$ 933,450	$ 1,126,177	20.6%	7.0%	13.6%
Latin America	471,301	466,349	-1.1%	-9.0%	7.9%
Canada	155,791	161,469	3.6%	0.0%	3.6%
Asia Pacific	119,749	136,944	14.4%	3.0%	11.4%
Total International	$ 1,680,291	$ 1,890,939	12.5%		
United States	3,392,284	3,422,405	0.9%		
Sales Adjustments	(384,651)	(428,004)	11.3%		
Total Net Sales	$ 4,687,924	$ 4,885,340	4.2%		

			(1)	**(2)**	**(3)**
			Percent	**Impact of**	**Net**
	2002	**2003**	**Change in**	**Change in**	**Change in**
(thousands of US$)	**Sales ($)**	**Sales ($)**	**Gross Sales**	**Currency Rates**	**Sales**
Europe	$ 1,126,177	$ 1,356,131	20.4%	15.0%	5.4%
Latin America	466,349	462,167	-0.9%	-6.0%	5.1%
Canada	161,469	185,831	15.1%	11.0%	4.1%
Asia Pacific	136,944	171,580	25.3%	13.0%	12.3%
Total International	$ 1,890,939	$ 2,175,709	15.1%		
United States	3,422,405	3,203,814	-6.4%		
Sales Adjustments	(428,004)	(419,423)	-2.0%		
Total Net Sales	$ 4,885,340	$ 4,960,100	1.5%		

			(1)	**(2)**	**(3)**
			Percent	**Impact of**	**Net**
	2003	**2004**	**Change in**	**Change in**	**Change in**
(thousands of US$)	**Sales ($)**	**Sales ($)**	**Gross Sales**	**Currency Rates**	**Sales**
Europe	$ 1,356,131	$ 1,410,525	4.0%	8.0%	-4.0%
Latin America	462,167	524,481	13.5%	-2.0%	15.5%
Canada	185,831	197,655	6.4%	5.0%	1.4%
Asia Pacific	171,580	203,575	18.6%	6.0%	12.6%
Total International	$ 2,175,709	$ 2,336,236	7.4%		
United States	3,203,814	3,209,862	0.2%		
Sales Adjustments	(419,423)	(443,312)	5.7%		
Total Net Sales	$ 4,960,100	$ 5,102,786	2.9%		

Note: The "net change in sales" by global region is determined by netting the change in currency rates from the calcualted percent change in gross sales. Column (3) = Column (1) + Column (2).

Answer to d)
Over the 2001 to 2004 period, Mattel benefited greatly from the change in exchange rates. Only in the case of Latin America, where exchange rate changes were actually negative in impact on sales levels for the entire period, did the exchange rate changes not positively impact regional sales.