

**PART  
One**

# **Business Valuation**

P1: a/b P2: c/d QC: e/f T1: g  
JWBT486-c03 JWBT486-Slee February 22, 2011 16:49 Printer Name: Yet to Come

## CHAPTER 3

# Private Business Valuation: Introduction

**P**rivate business valuation has only recently been viewed as a unique body of knowledge. In 1981, Dr. Shannon Pratt published *Valuing a Business: The Analysis and Appraisal of Closely Held Companies* (McGraw-Hill), the first major effort to legitimize private business appraisal as a stand-alone discipline. Before this work, private appraisal was driven by unsubstantiated opinion, and often the appraiser with the loudest opinion carried the day. During the 1990s, private valuation became sophisticated to the point where it is now a career path for thousands of business appraisers.

Professional business appraisers spend most of their time deriving fair market values of private business interests. This is understandable since fair market value is the most developed standard of value in the literature, the tax code, and the courts. Fair market value is often the default standard and is routinely employed for deriving value in a variety of scenarios, such as the value of a company to be sold or the value of a business interest in an insurable setting. It surprises many business owners and others outside of the appraisal community that a notional, hypothetical standard such as fair market value is so widely used to value actual interests. Rather than proposing a further stretch of fair market value into a one-size-fits-all standard, this book shows that the universe of private business appraisal is diverse and can be structured in a useful manner.

This chapter describes the fundamental concepts underlying private business valuation. In keeping with this book's premise, most of the tenets of private business valuation are drawn from middle-market finance theory, not corporate finance theory. The three major private valuation concepts covered are:

1. Private investor expectations drive private valuation.
2. Private business valuation can be viewed through value worlds.
3. Private valuation is a *range* concept.

These concepts form the basis for the ensuing chapters on private business valuation.

## **PRIVATE INVESTOR EXPECTATIONS DRIVE PRIVATE VALUATION**

An underlying principle of all valuation is that risk is related to market rates on capital. The greater the perceived risk of owning an investment, the greater the return expected by investors to compensate for the risk. The desire to achieve a return that is at least commensurate with the corresponding risk is the primary motive for investors to bear the uncertainty of investing.

Investors *expect* to earn a certain return from an investment. Return expectations are the starting point in the valuation process. Expected returns convert a benefit stream to a present value. This conversion makes all investments comparable; that is, alternative investments with comparable risk can be valued on a common basis. Risk is the degree of uncertainty, in terms of the amount and timing, of realizing expected returns.<sup>1</sup>

Another way of looking at the risk/return relationship is through a discount rate, which is determined by the market.<sup>2</sup> The discount rate is the expected rate of return required to attract capital to an investment. It takes into account the rate of return available from other investments of comparable risk. The definition of “market” is especially important here, since it should encompass the universe of investors who are reasonable candidates to provide funds for a particular investment.<sup>3</sup> A fundamental premise of this book is that the market for *private* return expectations is determined by *private* investors. This is contrary to current appraisal methodology, which often looks to the public capital markets to determine private expectations. This difference is discussed at length later in this chapter. First, however, is a further delineation of private return expectations.

By answering the question “Return to whom?” private return expectations can be viewed from at least three different perspectives: market, firm, and investor. Each of these perspectives tells us something useful in the valuation process. Exhibit 3.1 shows the definition, terminology, and primary discovery process for each return perspective.

The private capital markets contain all of the return expectations of private investors. The market rate is an opportunity cost, that is, the cost of forgoing the next best alternative investment. Private *market* return expectations are found in the private capital markets by viewing the Pepperdine Private Capital Market Line. Terms such as discount rate, expected rate of return, and cost of capital describe the market return.

An individual firm attempts to meet its shareholders’ return expectations. Firms typically use their weighted average cost of capital (WACC) as a minimum return required on investments. Management must take care to evaluate the risk of potential investments. The real return expectation should match the risk profile of the investment. This may mean a firm’s WACC is 15%, yet the riskiness of a certain investment opportunity causes a return expectation of 25%. This is a typical situation for companies in multiple lines of business. Suppose PrivateCo owns three divisions, each operating with a different risk profile. PrivateCo has a single balance sheet that yields an 18% WACC. Should PrivateCo use 18% as the *hurdle rate*, the firm’s minimum acceptable rate of return on an investment given the risk of the particular investment, for all investment opportunities within the

**EXHIBIT 3.1** Private Return Expectations: Three Perspectives

**Market**

Definition: The expected rate of return that the private capital markets require in order to attract funds to a particular investment.

Terms: Discount rate, expected rate of return, required rate of return, cost of capital.  
Process: Found by viewing the Pepperdine Private Capital Market L



**Firm**

Definition: The expected rate of return that a firm's shareholders require in order to fund a particular investment.

Terms: Weighted average cost of capital (WAAC), hurdle rate.

Process: Depends on the use to which the capital is put. The firm matches its expected return with the risk profile of the investment. At a minimum, however, the firm should receive its WAAC.

**Investor**

Definition: The expected rate of return that an investor requires in order to fund a particular investment.

Terms: Cost of equity, return on equity, return on investment.

Process: The investor's perception of the riskiness of the investment sets the expectation. Specifically, investor return is found by considering the total return received from the investment divided by the investment amount.

company? The answer is no. This subtle distinction between a firm's WAAC and hurdle rate is important. Managers should match the return expectation with the project risk, which often means using a rate higher than the company's WAAC.

Individual investors have return expectations that must be met before they will fund an investment. Cost of equity is peculiar to each investor. Most individuals determine required return on investment as the expected benefit stream divided by the amount of the investment.

The three return perspectives are central to understanding investment behavior in the private capital markets. The universe of individual investor and firm expectations comprise the market. Business valuation is essentially an exercise in measuring and matching risk and return. Investors view risk and return differently, which may also lead them to choose different valuation methods. This value measurement is then used to drive capital-raising and transfer methods. Deals do not happen without some agreement on risk/return.

A question remains: Why, then, do so many *private* appraisals performed in the United States look to the *public* capital markets to determine *private* return expectations? The capital asset pricing model and buildup methods are valuation tools that rely on public securities information to derive private discount rates. Using these models presumes that the return expectations in the public and private capital markets are the same. The next discussion indicates that they are not surrogates.

**Is the Subject Company Similar?**

The answer to the question of using public security information to derive private business values lies in Revenue Ruling 59-60, issued by the U.S. Treasury Department in 1959. It gives guidance on the valuation of closely held stock. Revenue

rulings present the position of the Internal Revenue Service (IRS) on various matters, and Revenue Ruling 59-60 has become the benchmark decree regarding the government's view of private business valuation. Revenue Ruling 59-60 justifies considering the "market prices of . . . either on an exchange or over the counter" as one of eight factors to consider when valuing private businesses. Public companies comparable to the private subject are called *public guideline* companies. This begs a significant question: Does a private company have the attributes necessary to make a comparison to public companies relevant?<sup>4</sup>

Several key underlying theories of public corporate finance do not apply directly to private companies, as discussed in Appendix A. To the extent that corporate finance theories do apply, public and private companies often appear at opposite ends of the theoretical spectrum. Other theories, such as net present value, apply and are simply not used.

The next issue is whether public stock information is a relevant source for valuing private stocks. Most private companies have different foundations, both financially and organizationally, from those of most public companies. Perhaps a comparison can be found between two different industrial buildings. Assume both contain 100,000 square feet on five acres of land. Both are zoned the same, with approximately the same internal layout and capabilities. The only difference is that one sits on a shaky foundation and the other sits on bedrock. As long as their foundations are disregarded, they are equally desirable substitutes. But few would ignore such foundational consideration.

### Principle of Substitution

The principle of substitution is a foundational concept underlying all economic appraisals. According to the principle of substitution, value is determined by the cost of acquiring an equally desirable substitute. In other words, no one would knowingly pay more for something than it would cost to obtain an equally desirable substitute. Guideline transactions are used to define the market for businesses that are equally desirable substitutes for the subject business. It is important to recognize that the principle of substitution does not call for "identical" businesses as substitutes for the subject company. Instead, it calls for investments whose desirability is equal to that of the subject business. From an investment viewpoint, guideline transaction prices are relevant to the value of private businesses when they are similar with respect to the degree of risk, the liquidity of the investment, and the involvement of management.<sup>5</sup>

A full discussion of the principle of substitution is found in Appendix B. It shows that public guideline transaction prices are not relevant to the valuation of private business interests. All three areas—risk, liquidity, and management involvement—point to major differences between public and private company stocks. Under this analysis, public stocks are *generally* not good substitutes or comparisons for private stocks. However, there are instances where it might be appropriate to compare a private company against its public counterparts.

To have a relevant private-to-public comparison, the private company should have the attributes necessary to go public. Following the analogy, it should have

a foundation similar to that of a public company. These attributes alone do not overcome all of the problems, but the ability to go public does lessen the effect of most of the aforementioned differences. For example, company risk and management approach should be similar between could-be-public and public companies. Liquidity for could-be-public companies is probably enhanced over other private companies.<sup>6</sup> Could-be-public companies have more ability to attract minority interest capital than would otherwise be possible. This could indicate that holding period expectations may be shorter for these companies than other private companies.

The next characteristics make a private company more suitable for comparison to public companies. These attributes can be used to determine whether a private company could go public within a reasonable amount of time, say, 12 months.<sup>7</sup>

- Does the company have the look and feel of public companies in its market segment? Does it have a story for using the newly raised funds that would yield returns greater than expected in its market segment?
- Is there credentialed management depth? An active board of directors? Are both groups up to facing the public scrutiny that the process entails?
- Has strategic planning been developed to implement both short- and long-term goals?
- Can all public reporting requirements, especially in the financial area, be met with timeliness?
- Does the subject company perform financially above the average in its market segment?
- Can the stock be sold even if all of the preceding requirements are present? For example, there may be limited public capital access for a \$3 million box converter. Is the subject company in a market segment that has historically been granted access to public monies?

If the owner or managers can answer these questions affirmatively, there is reason to believe it could access public money. This accessibility should be the basis for more relevant comparability. Companies that could go public but choose to remain private are the most relevant candidates for a public guideline valuation method. At least they have a similar foundation from which to compare.

### **PRIVATE BUSINESS VALUATION CAN BE VIEWED THROUGH VALUE WORLDS**

Private securities do not have access to an active trading market and, therefore, must rely on point-in-time appraisal or transactional pricing to determine value. Either a private valuation must be undertaken or a transaction must occur to determine the value of a private security *for some purpose at some point in time*. “Purpose” is defined as the intention of the involved party regarding why a valuation is needed.

Intentions cover the range of owner motivations for needing to know the value of their business. For instance, an owner may need to know the value of her business because of the need to raise private equity. Or the owner may need to know the value of the business because she wants to employ an estate planning technique, such as a family limited partnership, to transfer shares of the company to her children. The motivation to know the value of the business is not just a curiosity. The initial motive launches the owner on a path that both opens and closes possibilities. For instance, an estate planning motive leads to a fair market valuation, which yields a financial, nonsynergistic value. Choosing this path limits the value of the business but may reduce taxation as well as meet other personal planning goals.

Motives further drive appraisal purpose because private owners should not undertake a capitalization or transfer without knowing the value of their businesses. To do so would be the business equivalent of flying blind. For example, without a current valuation owners cannot effectively raise capital, because they do not know what their assets or business is worth in a lending or investment context. Attempting to transfer the business without knowing what it is worth is usually an exasperating experience.

Purpose leads to the function of an appraisal. Function is the specific use of an appraisal. The function of a valuation requires the use of specific methods or processes, each of which can derive dramatically different value conclusions. As mentioned in Chapter 2, undertaking an appraisal gives rise to *value worlds*.

*A private business value is relative to the value world in which it is viewed.*

Every private company, therefore, has a large number of different values at the same time, depending on the purpose *and* function of the valuation. The purpose of the appraisal governs the selection of a value world. Each value world follows a defined process to determine value under specific rules, based on the function of the appraisal. Each value world may have multiple functions. Each world also has an authority, which is the agent or agents that govern the world. The authority decides whether the intentions of the involved party are acceptable for use in that world as well as prescribes the methods used in that world.

More specifically, “authority” refers to agents or agencies with primary responsibility to develop, adopt, promulgate, and administer standards of practice within that world. Authority decides which purposes are acceptable in its world, sanctions its decisions, develops methodology, and provides a coherent set of rules for participants to follow. Authority derives its influence or legitimacy mainly from government action, compelling logic, or the utility of its standards.

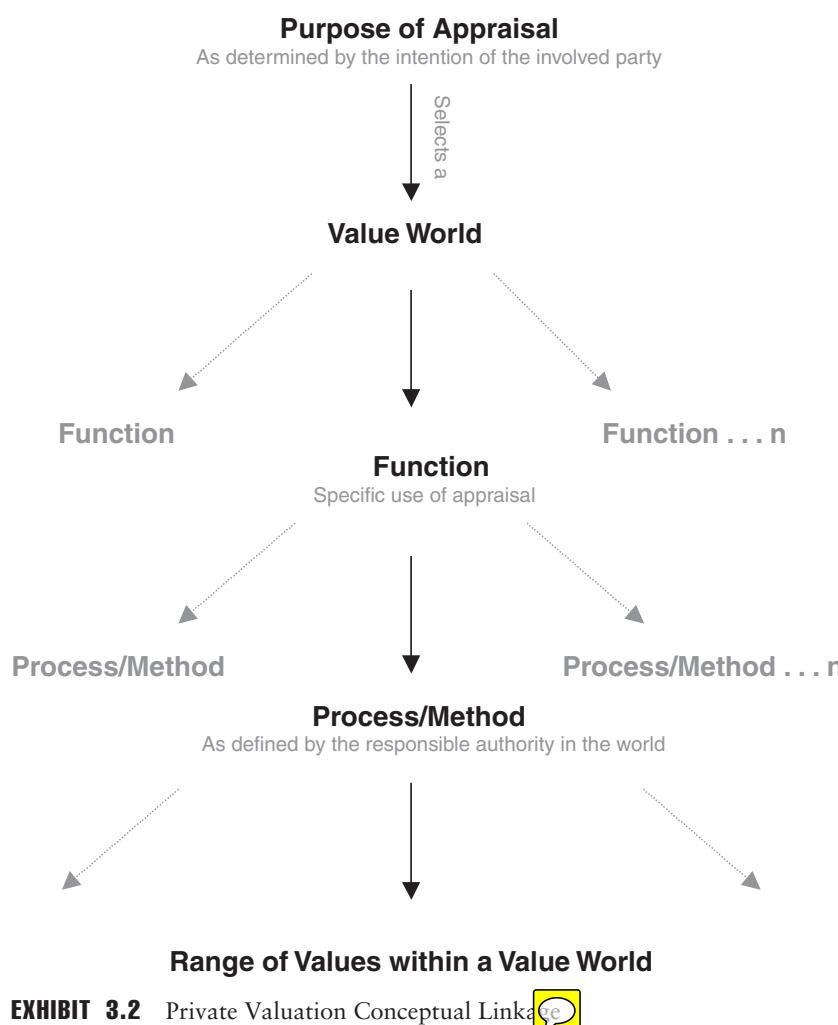
Sanctioning is the gatekeeping power of the authority to regulate access to the world. If the intention of the involved party, which leads to a purpose, does not meet the access criteria of an authority, the purpose will not be accepted. For example, an owner who pursues value in the owner value world may not access, or transact, in the world of early equity value. The latter world operates under a different set of valuation rules and will not recognize the owner’s treatment of value.

Examples of authority are found in each appraisal world. For instance, secured lenders are the authority for the world of collateral value. They develop criteria for accessing their world and administering methodology used to derive value. Lenders sanction noncompliance by withholding funds.

Another example involves the world of investment value. The investor is the authority in this world since he governs both the rules within the world and methodology used to derive value. However, for these to have meaning outside the investor's view, they must be expressed in commonly shared methods and standards. The investor can sanction noncompliant behavior by not investing. The reverse might be true as well. Investors who require too much return for the risk may not have opportunities to invest. Thus, for an authority to be effective, it must be widely recognized and accepted.

As explained in Chapter 2, private valuation is possible only within a set of parameters: a value world.

The conceptual hierarchy, graphically depicted in Exhibit 3.2, demonstrates the logical flow of decision making for an appraiser as the thought process moves from the general to the specific.



**EXHIBIT 3.2** Private Valuation Conceptual Linkage

### Value Worlds as Possible Worlds

To understand the concept of value worlds, it may be instructive to consider the discussion of “possible worlds” that philosophers have been engaged in for decades. The discussion can be traced back to Bertrand Russell and Alfred North Whitehead in their *Principia Mathematica*, where they argued that all of mathematics could be reduced to the logic of set theory.<sup>8</sup> Set theory is a way of organizing the primary concepts of a discipline. A similar concept was developed by Thomas Kuhn in his landmark book *The Structure of Scientific Revolutions*.<sup>9</sup> He coined the now-overused phrase “paradigm shift.” Broadly speaking, it is the notion that the world can be seen through a structured prism of preconceived ideas, language, and logic. A paradigm is a set of embodied experiences. A possible world then is a logically consistent way of viewing and explaining the world.

More recently, the philosophical discussion centers around “structured propositions” that encapsulate a set of complex entities bound together in identifiable ways. Structured propositions perform a number of functions in addition to being the primary bearers of truth, falsity, and meaning. They are coherent arguments, expressed in a consistent language that excludes nonconforming language, logic, and fact. A primary goal of each of these arguments is to root out the fallacy of including language, factual interpretations, or conclusions from one world with another, without careful thought as to whether they are mutually exclusive.

The concept of value worlds used here has the earmarks of what philosophers call a “possible world.” Each value world is a coherent construct that purports to describe a possible world. Possible worlds are not metaphysical speculations of little green men; rather, they are discussions of the language, truth, and logic of explanations. A few questions to guide the discussion of value worlds taken loosely from discussions of possible worlds are:

- What is the nature of the authority that governs the world?
- Are there prescribed or proscribed standards of practice in the world?
- Is there a separate lexicon and logic in the world?
- Are there similar terms that carry different meanings in different worlds?
- To what extent does choosing the world also choose the outcome?
- To what extent are the worlds mutually exclusive?

A value world then is like a possible world or a structured logical proposition. There is an authority that governs it, a language, logic, and meaning that provide structure. Attempts to combine arguments, facts, or conclusions from one value world with another are risky at best. Such attempts are like playing the parlor game Twister, which will soon have one doubled back and entangled in an embarrassing manner.

### Value Worlds

The value worlds concept chart in Exhibit 3.3 illustrates a number of value worlds in terms of purposes, functions, and authorities within them. While this list is not

**EXHIBIT 3.3** Value Worlds Concept Chart

Appraisal Purpose	Value World	Appraisal Functions	Responsible Authority
To find the highest value in the open market	Market value	Sale of a minority or control interest to support a merger	Financial intermediaries
To find a value for tax matters and for some legal reasons	Fair market value	Federal estate and gift taxes, ESOPs, charitable contributions	Federal law, administrative rulings
Shareholder actions	Fair value	To support a minority dissent, oppression claim	Statutory law
Shareholder wealth measurement	Incremental business value	To create/measure management bonus plans, company performance measurement, capital allocation systems	Management consulting industry
To determine insurance coverage	Insurable value	To fund buy/sell agreements, business interruption claims	Insurance industry, involved parties
To follow FASB ASC 350-20	Impaired goodwill	To determine impaired goodwill	FASB
To value intangible assets	Intangible asset	To value intellectual property, such as patents and copyrights, or to value intellectual capital	Intangible asset laws (patents, etc.)
To value the business from one investor's perspective	Investment value	Value specific to one investor, probably for purchase or investment	Investor
To value the business from an owner's perspective	Owner value	Value specific to owner, probably for sale	Owner
To determine the borrowing capacity of the business	Collateral value	To obtain a secured loan	Secured lending industry
To determine the value of a start-up	Early equity value	To derive the value of a start-up to determine equity splits	Venture capitalists
To determine the value of a business in bankruptcy	Bankruptcy value	To determine how much money creditors will receive	Bankruptcy judge and statutes
To determine the value of a public company	Public value	To set the price of an initial public offering	Public investment bankers

exhaustive, it indicates a universe of appraisal possibilities currently beyond the scope of most appraisers.

If the purpose of an appraisal involves finding the highest value of a business interest in the open market, the *world of market value* dictates the processes used to derive value. Every private company has at least three market values at the same time. Each market value alternative, called a subworld, represents the most likely selling price based on the most likely *buyer type*. In the world of market value, the subworlds are asset, financial, and synergy.

The asset subworld reflects what the company would be worth if the most likely selling price is based on net asset value, because the most likely buyer is not basing the purchase on the company's earnings stream but rather on the company's assets. In the asset subworld, the buyer is not giving credit to the seller for goodwill beyond the possible write-up of the assets; that is, no value for the operations of the subject. For our purposes here, goodwill is the intangible asset that arises as a result of name, reputation, customer patronage, and similar factors that result in some economic benefit a buyer is willing to pay for beyond the company's asset value.

The financial subworld reflects what an individual or nonstrategic buyer would pay for the going-concern enterprise, inclusive of goodwill. A financial buyer in the financial subworld must structure a deal using only the subject's income statement and balance sheet. Since the buyer brings no synergies to the deal, the deal itself must supply the earnings and the collateral that enable the transaction to be financed. This effectively creates a boundary around the valuation, in that there is a definable limit as to how much a financial buyer can pay for a business based on a capitalizing or discounting a benefit stream by an appropriate return expectation. The company itself provides much of the information used to create this boundary.

The synergy subworld is the market value of the subject when synergies from a possible acquisition are considered. Synergy is the increase in performance of the combined firm over what the two firms are already expected to accomplish as independent companies. The synergy subworld is mainly concerned with strategic or synergistic combinations, such as horizontal and vertical integrations, or any other combination where the acquirer can leverage the subject's capabilities.

#### **APPRAISAL DEFINITIONS**

**Value world:** A valuation construct that enables a private business value to be derived in a relevant setting that is relative to the purpose and function of the subject's appraisal.

**Purpose:** The intention of the involved party as to why a valuation is needed. The authority in the value world decides if the intention is acceptable in that world.

**Function:** The specific use of an appraisal, which leads directly to the choice of appropriate methods to employ.

**Authority:** "Authority" refers to agents or agencies with primary responsibility to develop, adopt, promulgate, and administer standards of practice within that world. Authority decides which purposes are acceptable in its world, sanctions its decisions, develops methodology, and provides a coherent set of rules for participants to follow.

Synergies can result from a variety of acquisition scenarios. Perhaps the most quantifiable group of synergies emanate from horizontal integrations, which can

realize substantial synergies by cutting duplicate overhead and other expenses. Some of these savings *may* be shared with the seller. Vertical integrations also can create substantial synergies. These tend to be strategic, where the target helps the acquirer achieve some business goal. Synergies also can result from the different financial structures of the parties. For instance, the target may realize interest expense savings due to adopting the cheaper borrowing costs of the acquirer.

Value is determined in this subworld by capitalizing or discounting a synergized benefit stream at an appropriate rate of return expectation. For example, the synergy subworld stream may include recast earnings before interest, taxes, depreciation, and amortization (EBITDA) plus the amount of enjoyed synergies by the subject. The amount of enjoyed synergies is the estimated synergies that are credited to, or kept by, a party in a deal. The total expected synergies in a deal must first be forecast. Then the enjoyed synergies must be negotiated between the parties. The party most responsible for creating the synergies is usually the buyer. Buyers will not readily give these synergies away since the realization of the synergies happens while they own the business. A high level of mature judgment and experience is necessary when quantifying the enjoyed synergies.

If the purpose of the appraisal involves tax and many legal matters, the *world of fair market value* is in control. The process used in this world is systematic and follows the dictates of Revenue Ruling 59-60, which lists a number of items to consider when valuing a business interest in this world.

If the purpose for the appraisal involves legal matters, one of the other worlds *may* come into play. The lawyers or courts normally will provide the choice of the appropriate world, although it is surprising how much uncertainty remains in this area.

Some legal appraisal purposes may occupy several value worlds. For example, divorce appraisal is driven by the legal jurisdiction of the filing. Unfortunately, states do not always provide sufficient guidelines for valuation. In North Carolina, for instance, the statutes do not define and require a particular standard of value for divorce valuations. Nor is there a court of appeals case in North Carolina where the different standards have been specifically put before the court for its consideration.<sup>10</sup> This condition also exists in other states.

The *world of fair value* can be entered in one of two ways. Minority shareholders who believe the majority shareholders have taken corporate actions that negatively affect them are called *dissenters*. Examples of corporate actions include merging or selling assets of the corporation, or changing key tenets of the corporate bylaws. Every state has dissenter's rights statutes that serve to protect the minority, typically through the purchase of the dissenter's stock at fair value, called the *appraisal remedy*.

"Oppression" is a legal term that basically means the minority shareholder's reasonable expectations have not been met. Oppressed shareholders' statutes or dissolution statutes are meant to protect minority shareholders from oppressive action, fraud, and mismanagement by the majority. Oppression covers actions taken against a minority shareholder in his capacity as an employee, officer, director, or shareholder. If a minority holder proves to a court that he has been oppressed, the holder will receive *fair value* for his shares, which normally means

**EXHIBIT 3.4** World of Incremental Business Value Process

Definition	Incremental business value (IBV) measures the result of generating a return on investment in excess of the company's corresponding cost of capital.
Purpose of appraisal	To measure the creation or incremental change to economic value in an entity, such as a company, product line, or financial management system.
Function of appraisal	For use in creating management bonus plans, project performance and subsidiary value measurement, as well as capital allocation systems and business planning.
Authority	Management consulting industry.
Valuation process summary	$IBV = \text{Returns} - (\text{Investment} \times \text{Cost of Capital})$ <i>where:</i> IBV = incremental business value. Returns = recast EBITDA equals earnings before interest, taxes, depreciation, and amortization, recast for owner discretionary expenses and one-time company expenses. Investment = the greater of the total amount of investment made in a project or business or the financial market value of the company. Cost of capital = the expected rate of return that capital providers in the private capital markets require in order to fund to a particular investment. Found by using the private cost of capital model. A positive IBV figure means that the number of dollars calculated creates shareholder value.

he will receive the pro rata share of the enterprise value, without any minority interest discount or lack of marketability discount.

The world of incremental business value measures the result of generating a return on investment in excess of the company's corresponding cost of capital. Investment equals the greater of all expenditures in a project or business that have a long-term impact, or the financial market value of the business. When a company generates positive incremental business value, it is generating revenues beyond the corresponding economic costs. This is important because positive incremental business value creates shareholder value; negative incremental business value destroys value (on a dollar-for-dollar basis). Further information on this world is provided in Exhibit 3.4.

The *world of insurable value* considers the value of a business or business interest to be covered by insurance. There are a variety of circumstances where business insurance is required, and as in the previous valuation worlds, within the insurable world, a business or business interest should be valued using a process that is specific to this world. By understanding how insurable value is determined and influenced, owners should be better prepared to purchase appropriate amounts of insurance to protect their business. Although there are numerous instances that require valuation for insurance purposes, three of the more important areas are to:

1. Derive the value needed to fund buy/sell agreements.
2. Determine the proper amount of key person insurance.
3. Value a claim in business interruption cases.

The *world of impaired goodwill* refers to the Financial Accounting Standards Board (FASB) ASC 350-20, which describes the accounting treatment of goodwill and other intangible assets. As opposed to amortizing goodwill over 40 years, the new rule does not allow for goodwill amortization. Rather, for just about every company that has engaged in business combinations in the United States, FASB requires an annual test for goodwill impairment, which basically means that if goodwill carried on the balance sheet is more than its current “fair value,” the difference must be written off. Public *and* nonpublic companies are required to complete the impairment test each year, which suggests that this value world will be active in the foreseeable future.

The *world of intangible assets* describes the value of all elements of a business enterprise that exist beyond its monetary and tangible assets. The world of intangible asset value can be conveniently divided into two subworlds. The first is the more traditional valuation of intellectual property. The second, more recent and more intangible than the first, is known as intellectual capital. The two areas differ from each other in significant ways. Due to the increasing use of intangible assets, this world is expected to become more prevalent in the future.

The *world of investment value* describes the value of a business interest to a particular investor, given a set of specific investment criteria. This world may appear similar to market value, in that it is possible for the two worlds to derive the same value for an interest. Upon further consideration, however, the worlds are quite different. Market value measures the highest value available in the market, based on likely investor profiles; whereas investment value derives the value to a particular investor, based on this investor’s benefit stream and specific return expectation.

The *world of owner value* is the value of a business or business interest to the current owner. Owners tend to highly value their businesses, mainly because they consider all compensation *and* all items that personally benefit them as part of the income stream. Examples of personal items include close business contracts, covered expenses such as insurances and business trips, and possibly even relatives on the payroll. Owners tend to capitalize this liberal benefit stream by a low return expectation, since they may view the equity risk as less risky than the market might perceive.

The *world of collateral value* measures the amount a creditor would be willing to lend given the subject’s assets serving as security for the loan. A company enters the collateral value world when it seeks a secured loan, such as a commercial or asset-based loan, or if it uses its assets in some financial engineered way, such as a sales-leaseback arrangement.

The *world of early equity* depicts the valuation process for early round investors. This world mainly involves venture capital but also applies to any other investors in a start-up. Because early investors may not use historical earnings or assets by which to measure the initial value, they must look forward and *back into* a beginning value. Early investors do this by forecasting a likely terminal value (also known as exit value) and then determining the amount of equity they need to own to meet their return expectations. Investing in this world requires tremendous skill and market knowledge because the investment exit may not occur for five to seven years.

When a business is unable to service its debt or pay its creditors, the business or its creditors can file with a federal bankruptcy court for protection under either Chapter 7 or Chapter 11. The business then enters the *world of bankruptcy value*. In Chapter 7, the business ceases operations, and a trustee sells all of the business assets and distributes the proceeds to its creditors. Any residual amount is returned to the owners of the company. In Chapter 11, in most instances the debtor remains in control of its business operations as a debtor in possession and is subject to court oversight and jurisdiction. The bankruptcy court judge is the main authority in this world.

Finally, public companies, especially those with floats of more than \$250 million, comprise the *public value world*. Public investment bankers are the valuation authorities in this world, as they use market knowledge to determine the price for initial offerings, secondary offerings, and, to some degree, pricing for mergers and acquisitions.

Occasionally book value is used as a benchmark in a shareholder matter, as in a buy/sell agreement. Book value does not constitute a value world, since it is an accounting term, determined by generally accepted accounting principles (GAAP). As an accounting concept, book value is a cost-based concept, and is not meant to represent the “value” of the assets less liabilities of the subject.

Each appraisal world has a definition of value, an exclusive purpose of the appraisal within the world, and functions that lead to unique processes to derive value. By way of example, the summarized process for determining incremental business value is shown in Exhibit 3.4.

This process is different in each value world and must be followed for a correct value determination.

The value worlds construct is important for several reasons. First, the range of possible values for a business interest at a *point in time* varies widely. An interest may be worth nearly nothing in one world while its value could be tremendous in another. Starting off in the correct world is paramount to understanding the value proposition. Keeping the worlds separate involves keeping the arguments, logic, and facts consistent in that world and separate from the other value worlds. For example, the fair market value world rotates with a fairly strict set of assumptions.

Second, with no ready market pricing for their private shares, owners must rely on point-in-time appraisals for most of their valuation decisions. Once the correct value world is chosen, a replicable valuation process is available. These processes provide relatively accurate answers to difficult questions.

Finally, the value worlds may collide. For example, owners often are faced with several decisions at the same time that require knowledge of the value worlds. This “war of the worlds” is important, mainly because it happens often to unsuspecting business owners. The subsequent chapters on valuation calculate values by world for PrivateCo, this book’s fictitious example company. All values are derived on an equity enterprise basis using the same income statement and balance sheet. Exhibit 3.5 shows these values by value world in ascending order of value.

Subsequent chapters demonstrate that PrivateCo has a wide range of value possibilities on the same date, from a low of \$2.4 million to a high of more than \$18 million. Once again, the same original income statement and balance sheet

**EXHIBIT 3.5** PrivateCo Valuation by World

World	Value
Asset market value	\$2.4 million
Collateral value	\$2.5 million
Fair market value	\$6.3 million
Insurable value (buy/sell)	\$6.5 million
Investment value	\$7.5 million
Impaired goodwill	\$13.0 million
Financial market value	\$13.7 million
Owner value	\$15.8 million
Synergy market value	\$16.6 million
Public value	\$18.2 million

is used as a starting point for the calculations. Of course, the presentation of the numbers and the processes to derive value are different, which fits with the value world premise.

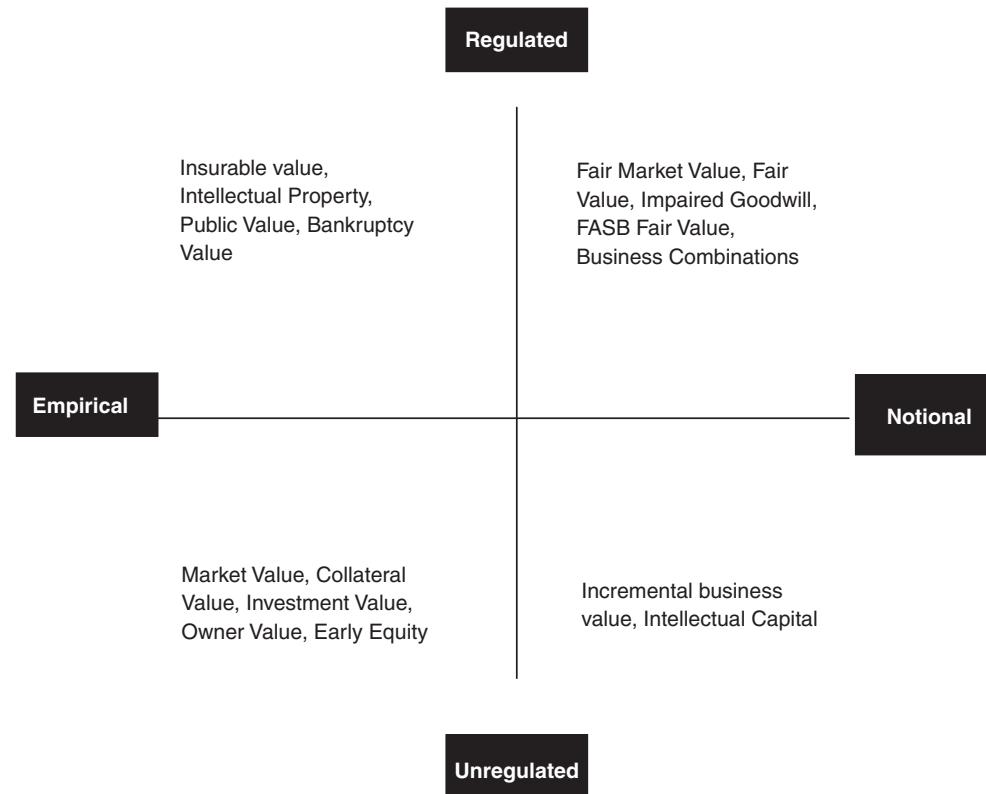
If PrivateCo's owner Joe Mainstreet is advised that his company is worth a specific dollar value and that all of his decisions should revolve around that value, Joe and PrivateCo could suffer as a result of that advice.

The intention of the involved party leads to a purpose of an appraisal. Purposes for undertaking an appraisal are referred to as giving rise to value worlds. The logical construct of a value world is independent of the experience of individual appraisers and individual assignments. Value, then, is expressed only in terms consistent with that world. Once the project is located in a value world, the function of the appraisal governs the choice of appraisal methods. The responsible authority in each value world prescribes these methods. The choice of appropriate appraisal method ultimately may lead to a point-in-time singular value. Thus, a private business value is relative to the *purpose* and *function* of its appraisal.

### Value World Quadrants

To consider the relations between value worlds, think of them in the value world quadrants in Exhibit 3.6. Each value world fits within one of the quadrants, depending on the world's relationship to the world categories. World categories represent the nature and effect of the authority within the worlds. The four main world categories are notional, empirical, regulated, and unregulated. Under this system, the fair market world lays in the *notional regulated* quadrant whereas market value lays in the *empirical unregulated* quadrant.

The authority decides which purposes are acceptable, sanctions its decisions, develops methodology, and provides a coherent set of rules for participants to follow. Authority derives its influence or legitimacy from three sources: government action, compelling logic, and/or the utility of its standards. The source of authority varies in each value world. Some authorities, such as the IRS and courts, are empowered by the government and have serious sanctioning power. Financial intermediaries and management consultants, in contrast, can only recommend and goad players in their spheres of influence. In the case of competing authorities,



**EXHIBIT 3.6** Value World Quadrants

such as asset appraisers and financial intermediaries, the authority with the most direct, relevant evidence is heeded. For example, in the asset subworld, the asset appraiser who specializes in an industry segment is likely to be the authority for that segment.

Is the authority located within the private capital market triangle? The purpose of authority is to accomplish an objective, usually within the triangle. All notional authorities live outside the triangle. These authorities, such as the FASB, state and federal courts and various laws, are not connected to the private capital markets. They often act in blatant disregard to the holistic interests of the capital markets. For example, FASB mandates the rules for determining fair value, yet it is not integrally involved in or constrained by the valuation, capitalization, or transfer side of the private capital markets. Notional authorities exist beyond the checks-and-balances of an integrated market.

Empirical authorities, by contrast, inhabit the private capital markets. These authorities, such as senior lenders, owners, investors, and financial intermediaries, have knowledge that emanates from the capital or transfer side of the triangle. Their behavior is routinely checked in the market. For instance, a senior lender in the world of collateral value who is too restrictive with its advance rates will not be competitive. Or an investor in the world of investment value who constantly underbids soon gets exasperated. The market feeds information back to these authorities, who then modify their behavior.

Each world category bears further discussion.

**Notional World Category** Authorities in the notional world category do not inhabit the private capital markets. The validity of this world category is derived from the strength of its coherence to the logical structure established by an authority. For example, the IRS is an authority in the world of fair market value, which is a notional world. Over the past 30 years, it has taken the illogical position that private minority interests suffer only slightly from a lack of marketability. This untenable position has been altered and ultimately influenced by the other main authority in fair market value, the tax courts. The courts have consistently ruled against the IRS in this matter. But since the courts do not live in the private capital markets, they have not brought the full market reality into their decisions. Since they are notionally oriented, they do not have to abide by market expectations.

**Empirical World Category** Value worlds and authorities in the empirical world category exist in the private capital markets. The most obvious example of an empirical value world is market value. The validity of this world category is derived from the strength of its correspondence to market experience. Information feedback mechanisms help establish the legitimacy of the authorities.

**Regulated World Category** In this world category, authority has a high degree of influence tending toward control. Participants in the world must play by the authority's rules or be sanctioned. The world of fair value is highly regulated. It also demonstrates what happens when a participant does not play by the authority's rules. The appraisal remedy provides fair relief to the oppressed or dissenting shareholder.

**Unregulated World Category** In the unregulated world category, authority has less influence because participants may or may not have to follow the rules. The world of early equity is an example of an unregulated value world. As the authority, venture capitalists value early-stage companies in this world. But venture capitalists can only suggest valuations through term sheet offers. Their only sanctioning power is to not invest.

Each valuation chapter contains a discussion of the corresponding value quadrant.

### **VALUATION AS A RANGE CONCEPT**

Because each value world is likely to yield a different value indication for a business interest, private business valuation is a range concept. Thus, a private business interest has *at least* as many correct values at any given point in time as the number of value worlds. Within each world there are multiple functions of an appraisal calling for unique valuation methods. The spread of values can be quite large between worlds.

Beyond the different values determined by world, there are a nearly infinite number of values possible *within* each world. This observation is based on four factors. First, there is latitude regarding the application of a prescribed valuation process. For instance, in the world of fair market value, appraisers decide which methods are suitable among the asset, income, and market approaches. This decision-making process causes variability from one appraiser to the next. Most value worlds require judgment regarding the application of methods.

Second, once the appropriate value world is chosen, the next important valuation issue is the calculation of a suitable benefit stream. Each value world may employ a different benefit stream to value a business interest. A benefit stream may be designed by an authority to predict market behavior, as in the case of an intermediary's use of a synergized stream. Or a stream may be designed to meet an authority's goals, such as an owner's all-encompassing definition, which serves to increase the value of the firm. Benefit streams can differ substantially from world to world. Streams also vary greatly from the seller's and buyer's perspective. The difference in benefit stream definitions in each world is a key reason *value variability* exists between the value worlds.

Third, like benefit streams, private return expectations are determined within each value world. Private return expectations convert a benefit stream to a present value, so they are key to the value equation. While the private capital markets contain all of the return expectations of private investors, return requirements vary by world, as for an investor in the world of investment value, or an owner in the owner value world, or a venture capitalist in the world of early equity. Value variability between worlds is increased because each world employs a unique return expectation.

Finally, the probability of different value drivers occurring must be considered. For instance, if a company's EBITDA is \$3 million, and this number is used in the valuation, it is assumed with 100% probability that the company will indeed achieve a \$3 million EBITDA. What if, upon further due diligence and consideration of revenues and cost variables, it seems reasonable to presume the company has only a 50% chance of achieving a \$3 million EBITDA? An independent analysis might further indicate that the company has a 25% chance of generating a \$2 million EBITDA and a 25% chance of earning \$3.5 million. Would each of these scenarios not lead to three different values, even in the same world?

Appraisers have some latitude in interpreting the correct valuation process, calculating the proper benefit stream and private return expectation, plus deciding on the probability of each variable occurring. These choices cause a wide range of possible expected values.

The existence of multiple variables in valuation leads to the idea of using probability-based scenario planning. In his article "How to Figure Odds in Forecasting Acquisition Results," Christopher Razaire makes the case for employing probabilities when valuing companies using discounted cash flow (DCF) analysis in the acquisition process.<sup>11</sup> Razaire believes two major flaws exist with current scenario planning methodology.

1. Current valuation methods lead to the choice of one value per assumption per period under consideration. As a result, the same weight of certainty is given to all assumptions, which of course can lead to misleading conclusions.
2. Multiple scenarios, such as “best case” and “worst case,” can lead to flawed conclusions since, no matter how many scenarios are modeled, each scenario has such a small chance of occurrence. Even the “base case” scenario may have less than a 20% chance of coming true.  
Razaire correctly asserts that the objective of DCF is to find the value, or range of values, to which a higher number of possible scenarios lead.
3. Assign probabilities to numerous variables. Razaire uses an iterative computer program to generate a graph with percentages on the horizontal axis and values on the vertical axis.

For example, the graph might show a 50% chance that the subject is worth \$20 million but a 10% chance it is worth \$40 million, and so on. This treatment enables an investor to quantify and visualize the risk profile of the valuation. If the valuation involves an acquisition offer, the use of probabilities allows the buyer to more fully understand the nuances of subtle changes to the offer. This can be especially beneficial if the offer changes in a bidding situation.

Razaire makes a strong case that calculating probabilities of a target’s performance can help buyers determine appropriate valuations. In so doing, he supports the premise that private business valuation *within* a world is a range concept. However, this does not mean that some valuation engagements do not need to be stated as a singular figure.

Although not mentioned by Razaire, the next step in using probability analysis in business valuation could involve Monte Carlo simulation. Scientists who had worked on the Manhattan Project first developed Monte Carlo simulation in 1949. Originally used to determine the feasibility of nuclear fission, the technique has been advanced to more everyday usages with the advent of the personal computer.

Monte Carlo is a technique to calculate uncertainty in a forecast of future events. It assumes a mathematical model is used to determine a result. Instead of using a single value for each variable in a model, such as pretax earnings, it uses many values. A Monte Carlo *engine* runs the model over and over, each time using a different value for each of the variables in the model. Each run is called a trial. The outcomes are tabulated, and after a large number of trials (perhaps thousands), the forecast is shown not as a single value but as a *range* of values. In other words, the uncertainty is explicit.

An example using Monte Carlo to value a company may be helpful. Suppose the value of 100% of PrivateCo’s stock is dependent on several underlying variables, pretax earnings, working capital investment, and capital expenditures. Monte Carlo simulation might be used to value the company by:

- Randomly generating 20,000 scenarios for the value of the underliers. In mathematical jargon, this simulation would be accomplished in a manner consistent with an assumed risk-neutral probability distribution of the three variables.

- Determining the value of the stock under each of the 20,000 scenarios.
- Forming a histogram depicting the range of results. This diagram represents a discrete approximation of the probability distribution of the stock's value. The discounted mean of the histogram is the estimated value of the stock.

The solution in step 3 yields an approximate value. By using more scenarios, say, 50,000 instead of 20,000, the precision of the result could be improved. Typically, the precision of a Monte Carlo simulation is proportional to the square root of the number of scenarios used.

Although most private business appraisals generate a point-in-time singular value, the foregoing demonstrates private business valuation as a range concept. On a macro level, the range is defined by a host of different values that correspond to the various value worlds. Within each world, every company has a nearly infinite number of values based on the probability of the underlying valuation variables occurring. For appraisal to be useful, the derivation of a single value is typically necessary. The challenge, then, is to generate point-in-time appraisals within the range concept; that is, to derive singular values within the range of possible values. For the purposes of this book, doing this requires an understanding of the utility of the value worlds and awareness that the best single value may be only slightly more probable than a host of other values.

### TRIANGULATION

Private business value is directly affected by the company's access to capital and the transfer methods available to the owner. Triangulation for valuation is depicted in Exhibit 3.7. Considering the value of a private business interest without reference

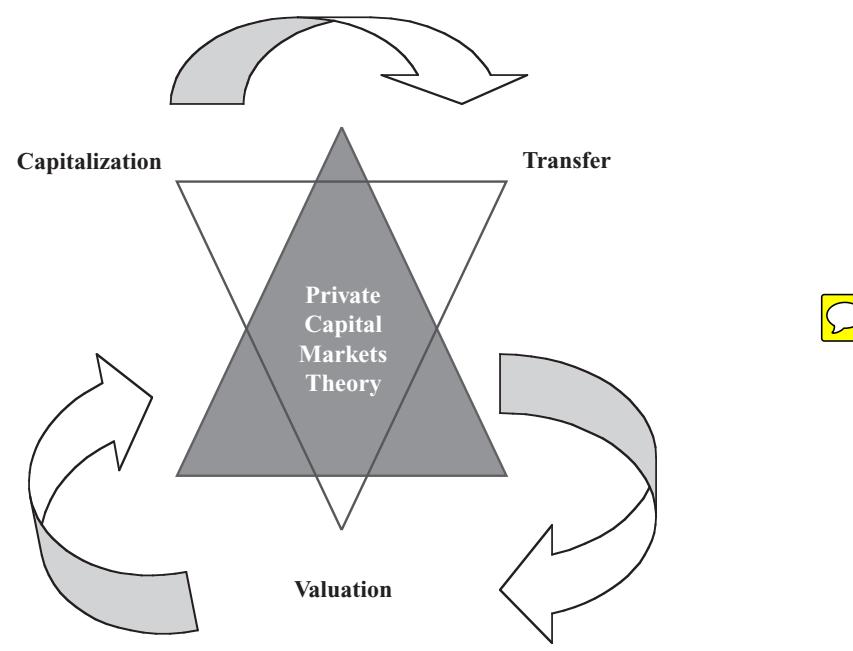


EXHIBIT 3.7 Triangulation

to capitalization or transfer quickly leads to an untenable position. For instance, the owner who ignores the return expectations of capital providers and his own willingness to act as an equity source, or the owner who fails to consider the spectrum of transfer alternatives, is truly “lost” in the conceptual value woods.

The choice of capital structure determines a firm’s cost of capital that directly affects private business value. For example, companies with owners who forgo debt in the capital structure have very high costs of capital. Such owners create incremental business value only when they make investments that exceed this hurdle rate. This is a difficult concept for most private owners who believe value is created whenever their company makes a buck. These owners do not see the *value* in considering capital structure in the capital investment decision.

The choice of transfer methods is no less important to the value of a private firm. Regulated transfer methods, such as estate planning techniques, rely on the world of fair market value to derive value. This method typically has a dampening effect on value. However, nonregulated transfer methods in the world of market value, such as auctions, provide the highest level of market value. Many owners fail to recognize that in choosing a transfer method, they also choose the likely value world in which the company is valued, which directly affects business value.

## **NOTES**

1. Shannon P. Pratt, Robert F. Reilly, and Robert R. Schweihs, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 5th ed. (New York: McGraw-Hill), p. 44.
2. Ibid., p. 159.
3. Shannon P. Pratt and Roger J. Grabowski, *Cost of Capital: Estimations and Applications*, 3rd ed. (Hoboken: John Wiley & Sons, 2008), p. 3.
4. Robert T. Slee, “Is the Subject Company Similar?” *Valuation Strategies* (May/June 1998).
5. Ray Miles, “Where to Find Transaction Data,” Institute of Business Appraisers, 1996, [www.go-iba.org](http://www.go-iba.org).
6. Pratt, Reilly, and Schweihs, *Valuing a Business*, p. 408.
7. James B. Arkebauer and Ron Shultz, *Cashing Out: The Entrepreneur’s Guide to Going Public* (New York: HarperBusiness, 1994), pp. 25–27.
8. Alfred North Whitehead and Bertrand Russell, *Principia Mathematica* (Cambridge: Cambridge University Press, 1910).
9. Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970).
10. Thomas H. Elam, “Paradigms in Divorce Valuation Reports,” *Business Appraisal Practice* (Fall, 2003).
11. Christopher Razaire, “How to Figure Odds in Forecasting Acquisition Results,” *Mergers & Acquisitions* (November/December 1995): 6–12.

P1: a/b P2: c/d QC: e/f T1: g  
JWBT486-c03 JWBT486-Slee February 22, 2011 16:49 Printer Name: Yet to Come