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Commentary

GROUND RULES IN LITIGATION OVER THE STATUTORY RIGHT OF APPRAISAL

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Arthur H. **Rosenbloom** and Jenny Son of consulting firm CRA International and attorneys Joel P. Karansky and Sarah C. Hong of Simpson Thacher & Bartlett present a primer on shareholder appraisal issues and the valuation standards used in various settings, such as IPOs, minority buyouts, mergers and dissolution.

Courts are often required to determine the value of minority interests in a corporation when a proceeding is brought under state dissenters' rights statutes. In most states, these statutes give rise to a question of valuation in cases of consolidation, merger or other change-of-control situations when a company, or a majority shareholder, acquires a dissenting minority shareholder's interests. [FN1]

Similarly, a question of valuation is also raised in cases when a shareholder seeks the dissolution of a corporation, which can only be avoided by the corporation's purchase of the minority shareholder's interests. This article examines the settings for claims involving the statutory right of appraisal, consider the varying standards by which value in such settings is determined, sets forth methods for arriving at freely traded value and discusses discounts from freely traded value.

The Settings

Consolidation, Merger and Other Changes of Control

At common law, any number of shareholders could effectively block the implementation of mergers, consolidations or sales of all or substantially all the corporation's assets because unanimous consent of the shareholders was required to carry out such major corporate transactions. To prohibit the minority from wielding an oppressive authority upon the corporation, many states enacted statutes under which less than a supermajority of a corporation's shareholders could approve extraordinary decisions, so long as the dissenters were able to demand and receive payment for their shares. This statutory procedure has been termed dissenters' rights in some states and appraisal rights in others. This article focuses primarily on the Delaware and New York statutory sections here, but similar statutes exist in most jurisdictions. [FN2]

In most jurisdictions, statutory rights of appraisal are available to shareholders who dissent from a merger or consolidation on the basis that the consideration offered by the acquirer is inadequate. The applicable Delaware and New York laws provide, in relevant part, as follows:

• Delaware General Corporation Law: A stockholder of a corporation who dissents from a proposed merger or consolidation shall have statutory appraisal rights available as a remedy. The corporation may also provide in its certificate of incorporation that appraisal rights are to be available for all classes and series of stock, in cases of amendment to the certificate of incorporation, merger or consolidation, or the sale of all or substantially all of the corporation's assets. [FN3]

• New York Business Corporation Law: A shareholder of a corporation who dissents from a proposed merger or consolidation, disposition of all or substantially all the corporation's assets, or any share exchange has the right to receive payment of the fair value of his shares. [FN4]

In some jurisdictions, aggrieved minority shareholders are granted a statutory mechanism by which to seek dissolution of the corporation. [FN5] In these instances, the state statute may allow the corporation to elect to buy out the minority shareholders, [FN6] require the shares to be transferred to either the minority shareholder or the corporation, [FN7] or give the minority shareholder the right to buy out the majority shareholders. [FN8] In such situations, courts must conduct an appraisal proceeding to value the shares when the parties cannot agree as to the transfer price. The applicable Delaware and New York provisions provide, in relevant part, as follows:

• Delaware General Corporation Law: The Court of Chancery, upon application of any stockholder, may appoint custodians for a corporation when the stockholders are too divided to elect successor directors, when the directors are so divided as to threaten the corporation with irreparable injury, or when the corporation has abandoned its business and has not taken steps to dissolve, liquidate or distribute its assets within a reasonable time. [FN9]

• New York Business Corporation Law: Subject to certain exceptions, shareholders of 50 percent of the votes of all outstanding shares may petition for dissolution of the corporation when the directors are so divided the votes required for board action cannot be obtained or the shareholders are so divided such that dissolution would be beneficial to them. In such proceedings for judicial dissolution, any other shareholder may elect to purchase the shares of the petitioning shareholders at their fair value. [FN10]

Standards of Value

Typically, shareholders (in both the dissenting shareholder and corporate dissolution contexts) are to be paid "fair value," "fair market value," "fair cash value" or "market value" for their shares. "The term 'fair value' as used in the valuation of shares ... is not a rigid criterion but establishes a flexible standard for fixing the value between parties who are unwilling or unable to agree." [FN11] Delaware and New York courts have set forth general valuation standards when considering cases involving "fair value" since the corporation may be valued "by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court." [FN12]

While methodologies used by experts will vary depending upon the nature of the company to be priced, generally the pricing methodologies will include comparative company and discounted cash flow analyses (examples of market and income approaches, respectively), [FN13] all preceded by careful preliminary due diligence concerning the company's operations and finances.

Determining Freely Traded Value

Having set out the contexts giving rise to statutory rights of appraisal, and having also described the general standards in fair-value determination, we next turn to the nuts and bolts of the valuation process itself. We begin with a consideration of how to determine freely traded value. Such a determination can be the terminus point if the subject shares are unrestricted shares of a company that is publicly traded in an efficient market, but it is often only an intermediate point as in the case of closely held, restricted or thinly traded shares in jurisdictions that permit discounts from freely traded value under certain circumstances.

We will then turn to a discussion of the contexts in which marketability and minority discounts may or may not be applied.

Comparative Company Analysis

Comparative company analysis is a well-known form of going-concern valuation. If properly executed, use of comparables may assist in fair-value determination although Delaware and other courts are often suspicious that dueling experts with potential conflicts of interest may be less than wholly objective in their choices of comparables, and thus, such courts may sharply question the reasonableness of such choices. [FN14]

The basis of comparative company analyses is to compare the subject company's financial performance against that of a group of companies (often in the company's Standard Industrial Classification code or North American Industry Classification System code) offering a comparable product or service, to infer a value for the company based on how well or poorly its financial performance compares with the array chosen by the expert for such purposes. [FN15] The valuation process may be summarized as follows:

• From publicly available sources, determine an array of publicly traded companies offering products or services and, if possible, of a size that reasonably compares to that of the subject company;

• Compare the subject company's financial performance against the comparatives in growth of revenues and earnings, profit margins, return ratios (returns on assets and equity), liquidity ratios (current and quick ratios), leverage ratios (debt to equity), turnover ratios (asset and inventory turnover), and other ratios. Industry-specific ratios such as same-stores sales, sales per square foot and revenues per passenger mile may also be usefully employed; and

• Develop one or more investor appraisal ratios (such as price to net income; price to earnings before interest and taxes or earnings before interest, taxes, depreciation, and amortization; price to revenues; price to tangible book value drawn from the investor appraisal ratios of the comparatives) and apply these to earnings, revenues or book value of the subject company, using higher multiples if the company's financial performance has been better than most of the comparatives and lower ones if it has not.

Discounted Cash Flow Analysis

The DCF analysis in an appraisal context attempts to derive value by determining the company's projected interim cash flows and discounting them back at a weighted average cost of debt and equity capital, or WACC. [FN16] To this figure is added an element called terminal or residual value, representing the theoretical perpetuity of the company's cash flows in the years following those covered in the projected cash flow period. To derive the value of equity, the market value of debt is subtracted from the value of the firm. [FN17] The process works as follows:

• Determine the company's future cash flows (typically net free cash flow or net profits plus depreciation, amortization, and other non-cash charges minus capital expenditures, with adjustments for changes in working capital) over a period of years. The realism of these cash-flow projections (whose probative force should be measured against what was learned in due diligence about the company's historic and current results and its past and present ability to project accurately) is only as good as the strength of the many required underlying assumptions concerning its business. These include changes projected to take place in the production and sale of its product or service and the market for these, the competition, the quality and depth of company management, and expansion plans and the company's financial and operational wherewithal to meet them. All these factors and many more determine the legitimacy of the revenue and expense projections that result from the assumptions producing the cash flows to be discounted;

• Discount the cash flows over the measuring period (which may vary considerably but should be projected until the company has reached a steady state) at an appropriate discount rate. The discount rate is generally chosen after using a "capital asset pricing model" or the Fama-French model that adds to CAPM the size and book value/market value ratios to develop the company's cost of equity. [FN18] The required return on equity is added to the company's cost of debt and weighted as a function of the percentage of debt versus equity on its balance sheet. One important element in calculating the cost of equity is to consider equity risk premiums and small-cap premiums over the risk-free rate (typically U.S. Treasury bonds) often derived from data produced by Ibbotson Associates. [FN19] Company-specific risk premiums over and above the equity risk and small-cap premiums based on judgment calls for factors such as competitive incursion; dependence on a key manager, customer, supplier or region; substantial debt or material contingent liabilities are sometimes frowned upon by courts as insufficiently analytically rigorous; and

• Determine the terminal or residual value. Corporations have theoretically perpetual lives and thus theoretically perpetual cash flows. There are a number of ways by which terminal value can be quantified, the two most common of which are the exit-value multiple method and the perpetuity method, only the latter of which appears to pass muster in Delaware. [FN20] Under the exit-value multiple method, the company is assumed to be sold at the end of the discounting period, sometimes at the same multiple as the multiple paid at closing, discounted back at the appropriate cost of capital determined through the process described above. Under the perpetuity method, the projected cash flow for the year after the last year of the cash flow projection is divided by a capitalization rate equal to the difference between the discount rate applied to the cash flow period (the WACC) minus the projected annual growth in the company's cash flow. [FN21]

In appraisal cases resulting from shareholders' dissenting from the consideration they were offered in a merger, it is also common practice to have projections for the subject business on a stand-alone basis only, as it is settled law that appraisal analysis cannot include value resulting from completion of the transaction. [FN22]

In meeting the requisite standard of care, the valuation approaches described above should be considered by the expert to arrive at a range of value.

Discounts From Freely Traded Value

For Lack of Marketability

It is well settled under Delaware and New York law that the value of the corporation itself "should be determined on the basis of what a willing purchaser, in an arm's-length transaction, would offer for the corporation as an operating business, rather than as a business in the process of liquidation." [FN23] In determining such a value, it is often argued by the putative purchaser of such shares that a discount be given to take into account the "illiquidity of [a] petitioner['s] shares, *i.e.*, that a potential investor would pay less for shares in a close corporation because they could not readily be liquidated for cash." [FN24]

Depending on the jurisdiction, some courts have taken the position that marketability discounts should not apply as a general rule, [FN25] while others have held that the issue is discretionary and that valuation should be considered "as a typical fact question" and thus "require[s] consideration of all factors, including whether a marketability discount is necessary to reflect the fair market value of the shares at issue" [FN26] before deciding whether apply a marketability discount. [FN27]

In dissenters' rights proceedings, New York courts have approved the application of marketability discounts when valuing a dissenter's shares in an appraisal action. [FN28] In *Friedman v. Beway Realty Corp.* [FN29] dissenting shareholders elected to exercise their statutory appraisal rights, and in determining the fair value of their shares, the court enunciated the principle that "in fixing fair value, courts should determine the minority shareholder's proportionate interest in the going-concern value of the corporation as a whole." [FN30]

In contrast, Delaware courts have held that a marketability discount would be inappropriate when valuing a dissenter's shares in an appraisal action because shareholder-level discounts would be inappropriate in valuing the corporation as an entire enterprise. In *Cavalier Oil Corp v. Harnett* a shareholder in a squeeze-out transaction sought valuation of his shares pursuant to Section 262 of the Delaware General Corporation Law, and the corporation argued that a marketability discount ought to have been applied.

The Delaware Supreme Court disagreed and held that in determining the "fair value" of a dissenting shareholder's shares, the "value of the corporation itself" must be distinguished from the "specific fraction of its shares as they may exist in the hands of a particular shareholder." [FN31] It further explained:

> [T]he company must be first valued as an operating entity by application of traditional value factors, weighted as required, but without regard to post-merger events or other possible business combinations. The dissenting shareholder's proportionate interest is determined only after the company as an entity has been valued. In that determination the Court of Chancery is not required to apply further weighting factors at the shareholder level, such as discounts to minority shares for asserted lack of marketability. [FN32]

In corporate dissolution proceedings, New York courts have held that a marketability discount is inapplicable as applied in the valuation of a corporation in a dissolution proceeding brought under Sections 1104-a and 1118 of the Business Corporation Law. In *Cinque v. Largo Enterprises of Suffolk County* [FN33] a majority shareholder corporation elected to buy out a minority shareholder who had brought a dissolution action against the corporation. In declining to apply a marketability discount to the valuation of the company, the court noted that such discount could only be taken against the company's intangible assets: "Such a discount should only be applied to the portion of the value of the corporation that is attributable to goodwill. Here, the value of the corporation is attributable solely to real property and cash." [FN34]

It should be noted, however, that there is authority in New York approving the application of a marketability discount in corporate dissolutions (whether or not the discount is restricted to a company's goodwill) in the court's discretion. For example in *Matter of Seagroatt Floral Co.*, [FN35] the state's highest court upheld the application of a marketability discount to the valuation of the shares of two closely held corporations as a proper adjustment for the "risk associated with illiquidity of the shares." [FN36] Delaware courts are silent on this issue.

For Minority Interest

While a marketability discount is used to reflect the lack of liquidity in shares of a closely held corporation, a minority discount is used to reflect a lack of control over the entity under the theory that minority shares are less valuable than majority shares because of their relative lack of voting strength. Minority discounts have been rejected in a majority of other jurisdictions. [FN37]

In dissenters' rights proceedings, both Delaware and New York courts have declined to apply minority discounts when valuing a dissenter's shares in an appraisal action. In *Cavalier Oil*, the court held that "the application of a discount to a minority shareholder is contrary to the requirement that the company be viewed as a 'going concern.'" [FN38] Similarly, in *Friedman*, the court held that the imposition of minority discount "would necessarily deprive minority shareholders of their proportionate interest in a going concern" and would "violate [its] mandate of equal treatment of all shares of the same class in minority stockholder buyouts" [FN39] by valuing minority shares lower than majority shares.

Application of a minority discount would also seem to be at odds with the purpose of these statutory remedies and would "fail to accord a minority shareholder the full proportionate value of his shares" and "unfairly enriches the majority stockholders who may reap a windfall from the appraisal process by cashing out a dissenting shareholder." [FN40]

In dissolution proceedings, most courts decline to apply minority discounts in part because "if the corporation had been dissolved, the minority shareholder would have received the pro rata value of the shares, with no consideration given to whether the shares represented a controlling interest." [FN41] Furthermore, in addition to desiring to avoid an enrichment of the majority at the expense of the minority, these courts have often concluded that because it is the corporation purchasing the shares, their lack of any controlling interest is irrelevant. [FN42]

Calculating Discounts From Freely Traded Value

In those jurisdictions that recognize a discount for lack of marketability, or DLOM, the expert must prepare an analysis sufficient to withstand cross-examination and judicial scrutiny. We review below some of the methodologies historically used and outline those that are most likely to be persuasive.

Non-controlling shareholders in a private business face difficulties converting their interests into cash that non-controlling shareholders in a freely traded company would not. While there is certainly consensus that marketability is valuable, the quantification of this value is highly debated. Courts often reject an analyst's DLOM because of the analyst's reliance on an average or median discount from an empirical study. [FN43] Courts have demanded greater analytical rigor from analysts and have accepted both empirical and quantitative methods when those methods faithfully reflected the specific facts and circumstances of the subject shares. [FN44]

In a highly influential case, *Mandelbaum v. Commissioner*, [FN45] the court listed 10 factors to consider in determining a DLOM:

• The value of the corporation's privately traded securities vis--vis its publicly traded securities or, if the stock is not traded both publicly and privately, the cost of a similar corporation's public and private stock;

• An analysis of the corporation's financial statements;

• The corporation's dividend-paying capacity, its history of paying dividends and the amount of prior dividends;

• The nature of the corporation, its history, its position in the industry and its economic outlook;

• The corporation's management;

• The degree of control transferred with the block of stock to be valued;

• Any restriction on the transferability of the corporation's stock;

• The period of time for which an investor must hold the stock to realize a sufficient profit;

• The corporation's redemption policy; and

• The cost of effectuating a public offering of the stock to be valued, for example, legal, accounting and underwriting fees.

While this list is not fully inclusive (it omits factors such as the availability and nature of potential buyers, the existence of put rights, and the immediacy of the prospect of an initial public offering or sale), it provides a solid starting point for determining the marketability of the subject shares. An analyst relying on empirical studies to quantify the marketability discount would be well-advised to compare the subject company with the companies sampled in the studies on such factors to determine a DLOM. Likewise, an analyst relying on quantitative methods must consider these factors when determining the inputs and assumptions to the DLOM model.

Empirical Methods for Determining the DLOM

While there are many empirical studies addressing the DLOM, they have traditionally been clustered around two general methods:

• *A comparison of the price of restricted shares in a publicly traded company with their unrestricted counterparts.* Examples of these restricted stock studies include the Securities and Exchange Commission's institutional investor Study, Gelman study, Trout study, Moroney study, Maher study, Standard Research Consultants study, Willamette Management Associates study, Silber study, FMV Opinion Inc. study, Management Planning Inc. study, Johnson study, Columbia Financial Advisors study and the Liquistat Database; and [FN46]

• *A comparison of the price of a share before and after an initial public offering.* Examples include the Robert W. Baird & Co. studies, Willamette Management Associates studies and Valuation Advisors studies. [FN47]

Unregistered (i.e., "letter") stock issued by public companies in private placements carries restrictions on the circumstances under which it may be sold and is typically sold at a price below that of identical, but freely marketable, securities of the same company. While restricted stock studies are widely used and have been accepted by the Internal Revenue Service, [FN48] they have several drawbacks. Restrictions on transfers of letter stock lapse within a short period of time (two years if examining transactions prior to 1997, and only one year or six months post-1997), after which there is a public market for those shares. This is rarely the case for closely held minority shares. Further, it could be argued that investors in private placements of restricted shares may be providing other services to the firm and thus receive greater discounts, distorting the price of the restricted shares. [FN49] Finally, many of these studies are quite dated and may not reflect conditions at recent valuation dates.

Using registration statements filed with the SEC, the IPO studies compare prices of private transactions with public offering prices and market prices following an IPO. IPO studies are widely used and have been accepted by courts but have faced criticism that they fail to exclude related-party transactions, leading one to conclude that some of the discounts found in the studies most likely include factors other than marketability. [FN50]

Quantitative Methods for Determining the DLOM

Quantitative methods seek to incorporate the main factors that drive marketability (expected distributions, holding period, and riskiness of the company) and have been approached in the following ways:

• *Discounted cash flow analysis.* Examples include the Quantitative Marketability Discount Model and the Tabak model; and [FN51]

• *Valuing marketability as an option.* Examples include the Chaffe model, the Longstaff model and the Finnerty model. [FN52]

Christopher Mercer's Quantitative Marketability Discount Model seeks to calculate the value of a minority share using DCF analysis. [FN53] The QMDM assumes that the shareholder will liquidate after an expected holding period. The value of a share at liquidation is equal to the expected value of the freely traded share at the end of the holding period (usually calculated by compounding the current freely traded price at an expected growth rate). The value of such share at liquidation is then discounted at a discount rate that incorporates a premium for illiquidity. The value of any expected dividends is discounted at the same rate and is added to the present value derived above. This number is equal to value of a closely held share, which by virtue of the higher discount rate should be lower than the freely traded value.

The Tabak model is also a DCF model that adjusts the discount rate to account for the additional return that investors in an illiquid asset require using CAPM. [FN54] The inputs require significant judgment on the part of the valuation analyst and are often determined with little empirical evidence to support their accuracy.

Valuing marketability as an option has received wider acceptance among valuation practitioners, although their validity has yet to be ensured by courts. The idea of using options theory to price marketability discounts came to the attention of the valuation community through an article by David Chaffe III in Business Valuation Review's December 1993 issue. [FN55] In his article, Chaffe said:

> When provided with an option to sell, otherwise non-marketable shares are given marketability. ... Following this logic, the cost or price of the option to sell (a put option) represents all (or a major portion) of the discount to be taken from the marketable price to price the non-marketable shares. To summarize, if one holds restricted or non-marketable stock and purchases an option to sell those shares at the free market price, the holder has, in effect, purchased marketability for the shares. The price of the put is the discount for lack of marketability. [FN56]

Chaffe concluded that discounts derived by valuing marketability as a European put option (the price that one would pay for the right to sell the share at the current freely traded price at the end of a predetermined holding period) represent the lower bound on the discount for lack of marketability. [FN57]

In 1995 Francis Longstaff conducted a study that sought to quantify how much marketability can affect security values. [FN58] In his model, he assumed that the investor could perfectly time the market but was prevented from selling his share at the highest point because of trading restrictions. Longstaff valued marketability as a "lookback" option in which the strike price is the maximum price during the holding period. He claimed that the price of this option provides an estimate of the upper bound on the value of marketability. As an extension of Longstaff's study, John Finnerty modeled the DLOM as the value of an average strike price option. [FN59]

The option models are alluring because they incorporate several key factors that drive the value of marketability and behave as one would intuitively expect. The option value increases as volatility increases (volatility is a measure of risk, and investors demand a higher DLOM for riskier shares). However, several challenges have been made to this approach. The models assume a holding period, which is difficult to forecast in the case of companies that have no plans for an IPO or sale. Further, marketability gives one the right to sell the share at any time at the *prevailing* market price, not at today's price, or the maximum price, or the average price.

And finally, some fail to see how the put option measures marketability at all. [FN60]

An examination of the methods to determine a DLOM, whether empirical or quantitative, has shown that each may be challenged, thus requiring a careful consideration of the facts and circumstances specific to a subject company's minority shares. More than one method should be considered to determine the DLOM and confirmation of the reasonableness of any given method.

Conclusion

Valuations proceedings over statutory rights of appraisal require a careful consideration of the applicable statutory and case law in the jurisdiction in which the appraisal is conducted; a rigorous examination of the facts respecting the operations and financial picture of the subject company; a thoughtful application of the appropriate going-concern valuation methodologies; and where available in the jurisdiction whose law applies, selecting the most appropriate method(s) by which to calculate a DLOM.

[FN1]. While jurisdictions generally provide for dissenters' rights in the context of limited partnerships and limited liability companies, this article focuses on dissenters' rights in respect of corporations.

[FN2]. Specifically, we focus on Del. Gen. Corp. Law § 262 and N.Y. Bus. Corp. Law § 910.

[FN3]. Del. Gen. Corp. Law § 262(a)-(c).

[FN4]. N.Y. Bus. Corp. Law § 910(a).

[FN5]. *See generally* 19 Am. Jur. 2d Corporations §§ 2364-2380 (2008).

[FN6]. *See, e.g.,* N.Y. Bus. Corp. Law §§ 1104-a, 1118.

[FN7]. *See, e.g.,* 805 Ill. Comp. Stat. Ann. 5/11.70.

[FN8]. *See, e.g.,* N.J. Stat. Ann. 14 § A:12-7(c)(8).

[FN9]. Del. Gen. Corp. Law § 226(a).

[FN10]. N.Y. Bus. Corp. Law §§ 1104(a) and 1118(a).

[FN11]. William Meade Fletcher, Valuation of Shares -- In General, Fletcher Cyclopedia of the Law of Corporations at § 5906.120; see also Fletcher at n. 13 (listing cases from various jurisdictions discussing determination of fair value of stock).

[FN12]. *Weinberger v. UOP Inc.*, 457 A.2d 701, 713 (Del. 1983).

[FN13]. Asset-based analysis, a cost-based approach (marking the assets and liabilities on a company's balance sheet from historical cost to fair market value), may be used if the company to be valued has modest cash flows by comparison to its assets or is bankrupt or nearly so and sometimes in the case of natural-resource companies. The comparative transaction approach is based on sales of controlling interests with its implicit control premium over freely traded value and is not typically used in statutory-right-of-appraisal cases where the search for freely traded minority interest value is the intent of the exercise. These approaches will not be further discussed in this article as they are used less frequently than the comparative company and discounted cash flow approaches described herein.

[FN14]. *See, e.g., In re Radiology Assocs. Litig.*, 611 A.2d 485, 490 (Del. Ch. 1991) ("The utility of the comparable company approach depends on the similarity between the company the court is valuing and the companies used for comparison. At some point, the differences become so large that the use of the comparable company method becomes meaningless for valuation."); *In re PNB Holding Co. S'holders Litig.*, 2006 WL 2403999 (Del. Ch. Aug. 18, 2006) ("At trial, the experts evidenced little familiarity with the actual details of their comparables. Moreover, my own review of their comparables suggests reason to doubt that they provide a sound basis to assess [the subject corporation's] value.").

[FN15]. *See, e.g., Andaloro v. PFPC Worldwide*, 2005 WL 2045640 (Del. Ch. 2005); *see also Agranoff v. Miller*, 791 A.2d 880 (Del. Ch. 2001); *Bomarko Inc. v. Int'l Telecharge*, 794 A.2d 1161 (Del. Ch. 1999); *Borruso v. Commc'ns Telesystems Int'l*, 753 A.2d 451 (Del. Ch. 1999); *ONTI Inc. v. Integra Bank*, 751 A.2d 904 (Del. Ch. 1999) (discussing application of comparative company analysis).

[FN16]. *See e.g. Andaloro*, 2005 WL 2045640; *Gesoff v. IIC Indus.*, 902 A.2d 1130; *Cede & Co. v. MedPointe Healthcare*, 2004 WL 2093967 (Del. Ch. 2004); *Cede & Co. v. JRC Acquisition Corp.*, 2004 WL 286963 (Del. Ch. 2004); *ONTI*, 751 A.2d 904 (discussing application of discounted cash flow analysis).

[FN17]. Alternatively, one can more directly determine the value of equity by deriving free cash flows to equity and discounting by the cost of equity.

[FN18]. In determining cost of equity, a standard of measure called beta is used to measure stock price volatility. In this regard, there is no clear consensus on whether five-year or two-year betas, whether raw or historically adjusted betas are more probative of value, or whether Barra betas, historical and projected are preferred.

[FN19]. The Ibbotson risk premium data has been questioned given the long period (from 1926) covered by the Ibbotson data. *See, e.g.,* R. Scott Widen, *Delaware Law, Financial Theory and Investment Banking Valuation Practice*, N.Y.U. J. L. & Bus. (Spring 2008), at 587, *available at* http://www3.law.nyu.edu/journals/lawbusiness/issues/uploads/4-2/NYB205.pdf ("In recent years, however, academic studies have questioned the appropriateness of using such a long historical measurement period in light of evidence that the size of the equity risk premium has declined over time.") (internal citation omitted).

[FN20]. *Id.* at 593-94 ("Delaware courts have consistently chosen to rely on the implied growth rate in perpetuity method in selecting an appropriate terminal value, when reliable data is available.") (internal citation omitted).

[FN21]. Whether to modify the capitalization rate for some of the out years of the perpetuity period is a facts and circumstances matter.

[FN22]. *See, e.g., Cavalier Oil Corp v. Harnett*, 564 A.2d 1137, 1144 (Del. 1989) ("[T]he company must be first valued as an operating entity by application of traditional value factors, weighted as required, but without regard to post-merger events or other possible business combinations."); *ONTI*, 751 A.2d at 909-10 (stating same, citing *Cavalier Oil*).

[FN23]. *Matter of Blake v. Blake Agency*, 107 A.D.2d 139, 146 (N.Y. App. Div., 2d Dep't). *See also Matter of Friedman v. Beway Realty Corp.*, 87 N.Y.2d 161, 167 (N.Y. 1995) ("The fair value of a dissenter's shares is to be determined on their worth in a going concern, not in liquidation.").

[FN24]. *Friedman*, 87 N.Y.2d at 165.

[FN25]. See generally Stephen A. Hess, *Use of Marketability Discount in Valuing Closely Held Corporation or Its Stock*, 16 A.L.R. 6th 693 § 4 (2006) (discussing cases from various jurisdictions where a marketability discount was held to be inapplicable in the context of corporate dissolution); Hess at § 16 (discussing cases from various jurisdictions where a marketability discount was held to be inapplicable in the context of dissenters' rights cases).

[FN26]. *Id.* at § 2.

[FN27]. *See generally id.* at §§ 5-6 (discussing cases from various jurisdictions where the application of a marketability discount was held to be within the court's discretion in the context of corporate dissolution); *Id.* at §§ 17-8 (discussing cases from various jurisdictions where the application of a marketability discount was held to be within the court's discretion in the context of dissenters' rights cases).

[FN28]. *See, e.g., Greek Peak Inc. v. Armstrong*, 265 A.D.2d 760 (N.Y. App. Div., 3d Dep't 1999) ("In valuing the shares of a private or close corporation, a discount for unmarketability should be applied 'because those shares cannot readily be sold on a public market.'") (quoting *Matter of Seagroatt Floral Co.*, 78 N.Y.2d 439 [N.Y. 1991]); *Carolina Gardens v. Menowitz*, 238 A.D.2d 189 (N.Y. App. Div., 1st Dep't 1997) (upholding lower court's application of a discount for lack of marketability).

[FN29]. *Friedman*, 87 N.Y.2d 161.

[FN30]. *Id.* at 168.

[FN31]. *Cavalier Oil*, 564 A.2d at 1144.

[FN32]. *Id.* (internal citation omitted). *See also Highfields Capital v. AXA Fin.*, 939 A.2d 34, 42 (Del. Ch. 2007) ("the value of a petitioner's shares may not reflect discounts for lack of marketability or illiquidity").

[FN33]. *Cinque v. Largo Enters. of Suffolk County*, 212 A.D.2d 608 (N.Y. App. Div., 2d Dep't 1995).

[FN34]. *Id.* at 609-10 (internal citation omitted). *But see Hall v. King*, 177 Misc. 2d 126, 675 N.Y.S.2d 810 (N.Y. Sup. Ct., N.Y. County 1998) (declining to restrict the marketability discount to goodwill); *Friedman*, 87 N.Y.2d at 165 (holding that the unmarketability discount is supposed to be taken against "the aggregate net asset value of the corporations").

[FN35]. *Seagroatt*, 78 N.Y.2d 439.

[FN36]. *Id.* at 446; *see also In re Brooklyn Home Dialysis Training Ctr.*, 293 A.D.2d 747, (N.Y. App. Div., 2d Dep't 2002) (applying a marketability discount to the entire value of the oppressed shareholder's interest in a corporate dissolution); *Whalen v. Whalen's Moving & Storage Co.*, 204 A.D.2d 468 (N.Y. App. Div., 2d Dep't 1994) (restricting the application of the marketability discount to the portion of the company's value attributable to goodwill); *Raskin v. Walter Karl Inc.*, 129 A.D.2d 642 (N.Y. App. Div., 2d Dep't 1987) (applying marketability discount); *Matter of Joy Wholesale Sundries*, 125 A.D.2d 310 (N.Y. App. Div., 2d Dep't 1986) (same); *Matter of Fleischer*, 107 A.2d 97 (N.Y. App. Div., 2d Dep't 1985) (same).

[FN37]. *See Friedman*, 87 N.Y.2d at 170 n.2 (listing cases rejecting the application of the minority discount in a variety of jurisdictions).

[FN38]. *Cavalier Oil*, 564 A.2d at 1145.

[FN39]. *Friedman*, 87 N.Y.2d at 169.

[FN40]. *Id.* (quoting *Cavalier Oil*, 564 A.2d at 1145); but see Christopher Vaeth, *Propriety of Applying Minority Discount to Value of Shares Purchased by Corporation or its Shareholders from Minority Shareholders*, 13 A.L.R. 5th 840 §§ 6(a)-(b) (1993) (discussing cases from various jurisdictions where a minority discount was held to be within the court's discretion in the context of dissenters' rights proceedings).

[FN41]. Vaeth, *supra* note 40, at § 2; see also generally Vaeth at § 3 (discussing cases from various jurisdictions where a minority discount was held to be inapplicable in the context of corporate dissolution).

[FN42]. However, one court has held that the applicability of the minority discount in the corporate dissolution context is a matter within the court's discretion. *See McCauley v. Tom McCauley & Son Inc.*, 104 N.M. 523, 535 (N.M. Ct. App. 1986) (holding that because corporate dissolution was not the sole available remedy, the minority shareholder would not necessarily have received the pro rata value of the shares and therefore, "the court properly exercised its discretion in ascertaining an appropriate discount factor for non-controlling shares").

[FN43]. See Aaron M. Rotkowski, *Factors that Affect the Selection of the Discount for Lack of Marketability*, Gift & Est. Tax Valuation Insights, Autumn 2007, at 6, *available at* http://www.willametteinsights.com/07/autumn_2007_ 1.pdf ("The acceptability of selecting a DLOM based solely on the average DLOM reported in the empirical studies has significantly decreased in the last decade. Accordingly, a thorough understanding of how the subject interest compares to the interests analyzed in the various empirical DLOM studies is important to a defensible DLOM analysis.").

[FN44]. *Id.*

[FN45]. *Mandelbaum v. Commissioner*, T.C. Memo 1995-255;, 69 T.C.M. (CCH) 2852, June 12, 1995.

[FN46]. *See* Shannon Pratt, Valuing a Business 419-30 (5th ed. 2008)

[FN47]. *See id.* at 434-39.

[FN48]. *Id.* at 431.

[FN49]. Aswath Damodaran, Damodaran on Valuation, Security Analysis for Investment and Corporate Finance 517 (2d ed. 2006) ("These studies of restricted stock have been used by practitioners to justify large marketability discounts, but there are reasons to be skeptical. First, these studies are based on small sample sizes, spread out over long time periods, and the standard errors in the estimates are substantial. Second, most firms do not make restricted stock issues, and the firms that do make these issues tend to be smaller, riskier, and less healthy than the typical firm. This selection bias may be skewing the observed discount. Third, the investors with whom equity is privately placed may be providing other services to the firm, for which the discount is compensation.").

[FN50]. Pratt, *supra* note 46, at 437-38.

[FN51]. *See* Travis R. Lance, *The Use of Theoretical Models to Estimate the Discount for Lack of Marketability*, Gift & Est. Tax Valuation Insights, Autumn 2007, at 11-12, *available at* http://www.willametteinsights.com/07/autumn_2007_ 2.pdf (discussing DCF models).

[FN52]. *See id.* at 7-11 (discussing options pricing models).

[FN53]. *See* Z. Christopher Mercer, Quantifying Marketability Discounts (1997).

[FN54]. See David Tabak, *A CAPM-Based Approach to Calculating Illiquidity Discounts*, NERA Economic Consulting, Working Paper 11 (Nov. 11, 2002), *available at* http://www.nera.com/Publication.asp?p_ID=1152.

[FN55]. David B.H. Chaffe III, *Option Pricing as a Proxy for Discount for Lack of Marketability in Private Company Valuations*, Bus. Valuation Rev. 182-86 (December 1993).

[FN56]. *Id.*

[FN57]. *Id.* at 183 ("The use of the European option model will result in lower option prices than if the American option form is used or if variations are considered to give the effect of a perpetual put adjusted constantly to the then marketable price. The findings will therefore err to less discount or the minimum applicable discount.").

[FN58]. *See* Francis A. Longstaff, *How Much Can Marketability Affect Security Values*, J. of Fin. 1767-74 (December 1995).

[FN59]. *See* John D. Finnerty, Analysis Group Inc., *The Impact of Transfer Restrictions on Stock Prices*, 5 (June 2003), *available at* http:// www.bvappraisers.org/contentdocs/Conference/TheImpac_tofTransfer_Restrictions_on_StockPrices.pdf.

[FN60]. *See, e.g.*, Damodaran, *supra* note 49, at 527 ("There is a simple way to illustrate that this put option has nothing to do with liquidity. Assume that you own stock in a liquid, publicly traded company and that the current stock price is $50. A two-year put option on this stock with a strike price of $50 will have substantial value even though the underlying stock is completely liquid. The value has nothing to do with liquidity but it is a price that you are willing to pay for insurance.").

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