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AN ALTERNATIVE PARADIGM FOR VALUING BREACH OF REGISTRATION RIGHTS AND LOSS OF LIQUIDITY

Royce de R. Barondes *

I. INTRODUCTION

This Article examines a basic question: What is the damage arising from the loss of an ability to trade an asset having a fluctuating value? For example, consider an investor whose investment advisor has lost all the investor's records and will take weeks to recover them. If this prevents the investor from trading, how can he measure his damages? The value of each investment, a stock or a bond, may fluctuate substantially over that time. How will the investor be able to prove that he would have sold particular investments? Even if the investor can prove this, how can he prove the price he would have received in a volatile market?

This kind of problem is not unusual in American jurisprudence. Courts have struggled over such damage measures since the founding of the country itself. Interestingly, it was this kind of circumstance that gave rise to some of the initial authority in the United States recognizing an expectation measure of damages.1

An expectation measure of damages for breach of contract is so familiar, and seems so intuitively correct, that it is difficult to

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conceive of a time when it was not obvious to instruct juries to award damages on that basis. Yet, prior to the nineteenth century, "damages were predominantly treated as an unregulated jury matter, and only by slow degrees were rules of law of any kind evolved on this subject." 2 A little more than two centuries ago, markets trading in state Revolutionary War debt were acutely volatile. 3 Concerns about solvency and repayment caused the debt to trade at a discount, although speculation that the federal government would assume the debt created market volatility. 4 Eerily, or perhaps disappointingly, similar to recent scandals in the capital markets, 5 one factor in the volatility was "insider trading"—certain "insiders" were aware of the federal government's plans to assume the war debt before they were made public and bought the debt at a discount in anticipation of receiving payment backed by the federal government. 6 The importance of accurate principles of damage computation is acute in such a context of high volatility. It is therefore not odd that some early American judicial opinions recognizing an expectation measure of damages arose from securities transactions, including transactions in Revolutionary War debt. 7

There are really two components to the damage arising from losing the ability to trade an asset having a fluctuating value. One component arises where the market in the asset does not function well. In this circumstance, the loss of an ability to trade may be obvious. Laidlaw v. Organ, 8 involving the purchase of tobacco, is a classic example. Prices of tobacco in New Orleans rose between thirty and fifty percent in February 1815 in response to

5. Recent scandals are so abundant that The Wall Street Journal has provided a scorecard to keep track of the events and the cast. See Executives on Trial: Scandal Scorecard, WALL ST. J., Oct. 3, 2003, at B1.
7. See Horwitz, supra note 1, at 937 (noting that expectation damages in both England and the United States first arose in cases involving speculation in securities). But see generally Simpson, supra note 2, at 547–61 (challenging Horwitz's interpretation of the historical development of expectation damages).
news that a peace treaty had been signed with Britain. Although this news was publicized by the posting of a handbill, a buyer learned of the news before the handbill was posted and quickly negotiated the purchase of tobacco. The Court held that the buyer was not obligated to volunteer this information to the seller. For this kind of market participant, a brief delay in an ability to trade would have had obvious, negative consequences.

Consider, however, another kind of market—one where the asset always trades at its proper price. In this instance, the kind of damage at issue in Laidlaw cannot arise. A riskless, non-interest-bearing investment payable on demand in a foreign currency might illustrate the situation opposite to that in Laidlaw. In this example, the instrument will always trade based on exchange rates. Delay in allowing the holder to trade will not decrease the value in the foreign currency that the holder will realize. One can, however, imagine the holder being harmed by a loss of liquidity by continuing to bear currency fluctuations, even if the instrument is never mispriced in a market transaction.

Existing approaches to formulating damages in this kind of context are inadequate. Case law reaches inconsistent outcomes concerning the value of liquidity. To formulate the correct approach, one might alternatively think of liquidity as providing an “option” and therefore try to use the famous Black-Scholes Option Pricing Model. There are concerns with building on that approach, however; complex analytical solutions can be dependent on the accuracy of presumed parameter values and this particular model contemplates valuing an option that has a fixed exercise price. The option provided by liquidity, however, involves an “option” to sell at a floating price—the market price.

Alternatively, one might look at a recent proposal in an essay by Barry Adler that examines recent authority addressing damages for breach of contract that results in loss of liquidity in a se-

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9. Id. at 183.
10. Id.
11. Id.
12. Id. at 195.
13. See infra Part II (addressing remedies for conversion of an asset having a fluctuating value and for conversion depriving the victim of liquidity).
15. See id. at 634–35 (referencing estimation of variance, a component of the formula).
Adler proposes that damages should be based on the cost of entering into a short sale of the security in question. This approach, of course, does not work to value loss of liquidity in an asset that cannot be "sold short." That is a fundamental problem, because many securities, as well as many other assets, cannot be sold short. In addition, for reasons noted below, assorted elements of federal securities law restrict the ability of the security-holder to effect the transaction Adler proposes.

This Article looks to another paradigm to motivate an answer—the exotic financial instruments created on Wall Street. Over the last few decades, a market has developed in assorted sophisticated financial instruments created by unbundling and repackaging various components of traditional securities. Financial engineering, for example, allows the creation of "synthetics." One court has described "synthetic" securities as follows: "A synthetic transaction is typically a contractual agreement between two counterparties, usually an investor and a bank, that seeks to economically replicate the ownership and physical trading of shares and options." This Article similarly formulates synthetic rights that, when coupled with the rights possessed by the holder of an illiquid asset, produce the equivalent of a liquid asset.

Development of the proper measures for valuing loss of liquidity is important because there are numerous contexts in which courts have to value loss of liquidity. Many involve various aspects of the securities markets, although similar issues arise in

18. See infra Part V.C.1.
19. See infra Part V.C.1.
20. See infra Parts V.C.2–3.
22. See id.; see also DICTIONARY OF FINANCE AND INVESTMENT TERMS 697 (John Downes & Jordan Elliot Goodman eds., 6th ed. 2003) (defining "synthetic asset" as "value that is artificially created by using other assets, such as securities, in combination").
24. See infra notes 88–93 and accompanying text.
connection with the law of conversion generally. To develop an approach to formulating damages for loss of liquidity, this Article focuses on a particular context involving securities—breach of a "registration right." A registration right is simply a contractual undertaking by a company to register a securityholder's sale of a security with the Securities and Exchange Commission ("SEC"). Formally, the registration is made under the Securities Act of 1933 ("1933 Act"). Where an investor, such as a venture capital firm, makes an investment in a private company, that investment frequently cannot be resold unless the sale is registered with the SEC. Because registration requires the participation of the issuer—the venture capital firm cannot do it on its own—venture capital firms frequently bargain for registration rights when they make investments.

Because the venture capital market plays a significant role in nurturing an important segment of the economy, legal doctrines governing a significant element of contracts by which venture capital is raised merit review. This Article develops principles for valuing loss of liquidity in this context for additional reasons as well. It is useful to choose a context involving securities transactions because the capital markets are familiar, well-functioning markets, and in those markets analogous synthetic assets have been developed. In addition, the particular context—breach of registration rights—is both the specific context examined by Adler, as well as a context that has given rise to recent litigation. The insights developed in this Article demonstrate that the damage measures awarded in litigation have been flawed.

25. See generally Part II (discussing authority formulating damages for conversion of property having a fluctuating value).
28. See id. § 77e(a); see also infra notes 73–77, 95–96 and accompanying text (discussing various exemptions to the registration requirement).
29. See infra notes 76–77 and accompanying text.
31. See generally Caiola v. Citibank N.A., New York, 295 F.3d 312, 324 (2d Cir. 2002) (explaining that petitioner's synthetic transactions were securities); DICTIONARY OF FINANCE AND INVESTMENT TERMS, supra note 22, at 697 (defining "synthetic assets" in relation to securities).
32. See Adler, supra note 16, at 25.
33. See infra Part III.
A brief sketch of the background identifies a basic cause of the difficulty in assessing damages. A security that cannot be resold in a public transaction is called "restricted." A restricted security can be sold; however, unregistered (private) sales of restricted securities frequently are at substantial discounts to market prices for public sales. A promisee of registration rights in breach may be reluctant to mitigate by reselling the securities in a private transaction. The sale, producing substantial damages, may be considered unreasonable mitigation. Whether the mitigation appears reasonable depends on the duration of the breach. However, the promisee may not be able to estimate how long the breach will last. Upon breach, the promisee therefore will be concerned that, if it immediately resells, which would otherwise have provided an easy way to fix damages, subsequent litigation will reveal that the breach would have been brief, and that the mitigation was unreasonable.

The authority governing damages for breach of registration rights relies on authority addressing breach of contract concerning, or conversion of, property having a fluctuating value. That authority, which is summarized in Part II, is in severe disarray. The inconsistency within that authority, and the problems with the current authority governing breach of registration rights, arise from a common source—the absence of a textured principle from which the damage measures are derived. "Textured" is used here to reference a principle adequately detailed to allow decisionmakers to choose a unique solution. The principle of expectation damages, for example, putting the promisee in a position equivalent to that which it bargained to be in, is not sufficiently "textured" in this context, because that principle does not provide adequate guidance to judges to produce a clear, unique outcome.

To start developing a textured principle for valuing breach of registration rights, Part III provides background information de-

34. See 17 C.F.R. § 230.144(a)(3) (2004); see also infra note 70 and accompanying text.
35. See generally RESTATEMENT (SECOND) OF CONTRACTS § 350(2) (1981) (stating a limit on recovery of damages that could have been avoided does not preclude recovery to the extent the promisee has made "reasonable but unsuccessful efforts to avoid the loss").
36. See generally 3 E. ALLAN FARNSWORTH, FARNSWORTH ON CONTRACTS § 12.12, at 243 (2d ed. 1998) ("[A] difficult question is posed if that party has in good faith taken steps that seemed reasonable at the time but that, in retrospect, prove not to have been the most effective possible.").
37. See infra Part II.
38. See infra Part II.
scribing registration rights. As discussed in Part III, registration rights afford some securityholders a degree of liquidity, allowing free resale of securities where resale requires registration under the 1933 Act (or an exemption from registration). Part III describes reported opinions that analyze damages for breach of registration rights. In some cases, the breach will prevent consummation of a transaction that the plaintiff can demonstrate would have otherwise been consummated. In those cases, where the profits from the lost transaction can be proven, the damage computation can be relatively straightforward. In other cases—where the plaintiff cannot prove it would have consummated a particular transaction—some authority provides damage awards comprising "the difference between (1) the highest intermediate price of the shares during a reasonable time at the beginning of the restricted period and (2) the average market price of the shares during a reasonable period after the restrictions were lifted."

The patent inadequacy of that formula is revealed by applying it to a hypothetical. Consider an obligation to register the resale of a security whose price does not vary over time. The quoted formula would yield no damages. The holder, however, could still be damaged by being deprived of liquidity. The holder might, for example, be a business that could not sell the security and use the proceeds to fund its operations.

There are two components to the value of registration rights. First, a holder of registration rights can reallocate the investment to other uses. The preceding paragraph identifies a damage arising from loss of that component. Second, the holder has the right

39. See infra Part III.A.
40. See infra Part III.A.
41. See infra Part III.A–C.
42. See infra Part III.B–C.
44. Such a situation may occur, for example, either as a consequence of a lack of volatility in the pertinent market or because the instrument paid interest frequently at a rate reset daily based on an auction. There are securities whose rates are reset based on auction procedures. See, e.g., Raymond W. Wagner, Auction Rate and Remarketed Preferred Stock, in NEW FINANCIAL INSTRUMENTS AND TECHNIQUES 1989, at 693, 695 (PLI Corp. L. & Prac. ed., 1989), available at WESTLAW, 630 PLI/Corp. 693 (describing "a)uction rate preferred stock" with a dividend reset through an auction mechanism "designed to ensure that the stock will trade at its liquidation preference," and noting that approximately $18.1 billion in auction rate preferred stock was outstanding as of December 1988).
to select a time for reducing the investment to cash, fixing its value, even if the holder has no intention of immediately using the proceeds in some other way.\textsuperscript{45} This second component is similar to the matter at issue in \textit{Laidlaw v. Organ},\textsuperscript{46} although the parties in question have different roles. The buyer’s ability to trade was at issue in \textit{Laidlaw},\textsuperscript{47} whereas breach of registration rights impedes the actions of the prospective seller.

On reflection, the inadequacy of the formula quoted above\textsuperscript{48} is self-evident. Registration rights provide liquidity. The value of liquidity is dependent on the pertinent time period. It generally will be worse to lose liquidity for a month than to lose it for a day. As no component of the formula directly incorporates a pertinent time period, it is unlikely to be correct.

Of course, the passage of time typically will affect the damages under this formula. The formula subtracts the price at one time from a price at another time. Where investments follow trends, e.g., over time stock values rise on average, a longer time period of breach can affect the anticipated damages. But the impact of time on the damage award is less direct than one would expect.

Part IV provides some theoretical background necessary for assessing alternative damage measures. Part V then derives a proper damage measure by identifying the cost to acquire \textit{synthetic registration rights}—a bundle of rights that collectively puts the promisee in the same position that it would have been in had

\begin{itemize}
\item \textit{Investment 1:} Company A agrees to pay the holder, one year from the investment, cash equal to the value of 1,000 shares of Company A’s stock on the date of payment.
\item \textit{Investment 2:} This investment is similar, except that at any point in time during the one-year period, the holder has the right to designate the shares be valued at that time. After a designation, the obligation would accrete value at a representative rate for corporate debt obligations.
\end{itemize}

There is an option embedded in \textit{Investment 2}, which makes it more valuable than \textit{Investment 1}. That option is similar to one of the attributes of a registration right covering securities for which there is a market because the holder can sell the security and invest in corporate debt obligations. But the option does not fully delimit the authority conveyed by registration rights. The holder of registration rights can, for example, sell the covered security and allocate the proceeds to something other than a financial investment.

\begin{itemize}
\item \textsuperscript{45} This second right can be illustrated with a simple example. Consider the following two investments in Company A:
\item \textit{Investment 1:} Company A agrees to pay the holder, one year from the investment, cash equal to the value of 1,000 shares of Company A's stock on the date of payment.
\item \textit{Investment 2:} This investment is similar, except that at any point in time during the one-year period, the holder has the right to designate the shares be valued at that time. After a designation, the obligation would accrete value at a representative rate for corporate debt obligations.
\end{itemize}

\textsuperscript{46} See \textit{id. at 195; see also supra} notes 8–12 and accompanying text.

\textsuperscript{47} See \textit{supra text} accompanying note 43.
the promisor performed. The resulting damage computation is surprisingly simple. In sum, Part V concludes that a proper damage measure consists of the decrease in price over the period registration was suspended plus hypothetical interest, computed based on the value of the securities at the time of breach, over the period of time registration is suspended.

Part V further notes that this damage computation is not a radical departure from traditional principles. As noted in that Part, historically a person denied use of a chattel could recover damages comprising "interest" on the value of the chattel. The damage measure developed below is a logical extension of that principle. It provides similar interest, but adds a second component—any decrease in the value of the asset over the intervening period—needed because the asset value is volatile.

Part V also compares this approach to an alternative damage measure that has been recently proposed by Barry Adler, which involves a short sale. Part V argues that the synthetic registration rights approach is preferable because in many cases there is not a market for selling the covered securities short, and various elements of federal securities laws would, to a greater extent, impede a promisee's ability to effect transactions in mitigation involving a short sale. As between the two damage measures, one that is based on an actual transaction a promisee could effect is superior to one that is not available to the promisee. In addition, unlike Adler's proposed damage methodology, the synthetic registration rights developed in Part V can be extended to measure damages for deprivations of liquidity in assets that cannot be sold short (borrowed and immediately sold, free and clear, by the borrower).

II. TIME AT WHICH DAMAGES ARE MEASURED

As discussed in Part III.B, the cases valuing breach of registration rights have relied on authority governing breach of contract concerning, or conversion of, property having a fluctuating value. Development of the authority governing breach of registration

49. See infra Part V.A.2.
50. See infra note 261 and accompanying text.
51. See Adler, supra note 16, at 31–32.
rights therefore needs to begin with a review of this authority.\textsuperscript{52} Courts frequently apply the same principles to value the breached obligation or converted property on the theory that the goal in both circumstances is the same.\textsuperscript{53} The state of the authority concerning damages for conversion of property having a fluctuating value is reminiscent of the wry remark in \textit{Hannah v. Peel}\textsuperscript{54} concerning the law of finders: "A review of these judgments shows that the authorities are in an unsatisfactory state."\textsuperscript{55} No fewer than seven different measures have been used at various times,\textsuperscript{56} including, for example: (i) the value at the time of the

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\textsuperscript{52} Other contexts can raise similar issues. See, e.g., Gerstle v. Gamble-Skogmo, Inc., 478 F.2d 1281, 1306 (2d Cir. 1973) (damages for violation of proxy rules in connection with a merger); Scalp & Blade, Inc. v. Advest, Inc., 765 N.Y.S.2d 92, 101-02 (N.Y. App. Div. 2003) (holding that in a case asserting claims of churning, unauthorized trading, or other suitability violations, the plaintiffs could properly introduce evidence of market index performance for purposes of proving damages and distinguishing authority concerning negligent retention of securities).

\textsuperscript{53} See, e.g., McKinley v. Williams, 74 F. 94, 102-04 (8th Cir. 1896); Mech. Nat'l Bank of Worcester v. Killeen, 384 N.E.2d 1231, 1240 (Mass. 1979) (discussing wrongful sale by a secured creditor); Vos v. Child, Hulswit & Co., 137 N.W. 209, 210 (Mich. 1912) (quoting McKinley, 74 F. at 102-04); Baker v. Drake, 53 N.Y. 211, 220 (1873) ("[T]he rule of damages should not depend upon the form of the action. In civil actions the law awards to the party injured a just indemnity for the wrong which has been done him, and no more, whether the action be in contract or tort... the inquiry must always be, what is an adequate indemnity to the party injured, and the answer to that inquiry cannot be affected by the form of the action in which he seeks his remedy."); cf. Carlsten v. Widecom Group, Inc., No. PC 97-1425, 2003 R.I. Super. LEXIS 76, at *49-51 (R.I. Sup. Ct. July 1, 2003); RESTATEMENT (SECOND) OF TORTS § 927 cmt. e (1976). But see, e.g., Lucente v. Int'l Bus. Machs. Corp., 310 F.3d 243, 263 (2d Cir. 2002) (rejecting application of the New York rule for conversion to breach of contract claim alleging unauthorized cancellation of restricted stock and options, and requiring valuation be made as of the date of breach); Scully v. US Wats, Inc., 238 F.3d 497, 507, 510 (3d Cir. 2001) (finding that, where the parties agreed that federal, New York, and Pennsylvania law provide the same outcome, there is a difference between valuation in breach of contract and conversion, in that the former does not allow recovery of a higher price at a "reasonable time" into the future, while the conversion measure allows recovery of "some prospective profit"); Charles Selon & Assocs. v. Estate of Aisenberg, 431 N.E.2d 1214, 1217 (Ill. App. Ct. 1981) (upholding the trial court's fixing of damages at the time and place of conversion.)

\textsuperscript{54} 1945 K.B. 509 (Eng. C.A.).

\textsuperscript{55} Id. at 520.


It is not novel to note that some of the variation in the case law arises where courts abbreviate the language used to articulate the damage measure. Opinions sometimes simplify the stated principle in a way that does not affect the outcome in the particular lawsuit, but nevertheless raises ambiguity concerning cases not before the court. For example, a court in a case involving conversion of a good in a monotonically increasing market might reference the highest price over a reasonable period of time following the conver-
conversion;\(^{57}\) (ii) the highest value from the time of the conversion to a reasonable period of time thereafter;\(^{58}\) (iii) the highest value
from the time of the conversion to a reasonable period of time after
the owner has notice of the event;\(^5\) (iv) the highest value from
the time the owner has notice of the conversion to a reasonable
period of time thereafter;\(^6\) (v) the higher of the value at the time
of the conversion and the highest value from the time the owner
has notice of the conversion to a reasonable period of time there-
after;\(^6\) (vi) the highest value from the time of the conversion until
the time the lawsuit is filed;\(^6\) and (vii) the highest value from the

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\(^5\) Donato v. Merrill Lynch, Pierce, Fenner & Smith Inc., No. 86 C 9740, 1988 U.S. Dist. LEXIS 11116, at *8 (N.D. Ill. Sept. 30, 1988); Fletcher v. Cobuzzi, 510 F. Supp. 263 (W.D. Pa. 1981) (discussing the conversion of stock under Pennsylvania law); duPont v. Del. Trust Co., 364 A.2d 157, 161 (Del. Ch. 1975) (subtracting the value of property received in exchange); Vos v. Child, Hulswit & Co., 137 N.W. 209, 210 (Mich. 1912) (holding that, in a case involving breach of contract, "the measure of damages for the failure to sell or to deliver stocks and like speculative property, or for the conversion thereof, is the highest market value which the property attains between the time when the contract required its sale or delivery, or the time of its conversion, and the expiration of a reasonable time, to enable the owner to put himself in status quo after notice to him of the failure to comply with the contract or of the conversion." (quoting McKinley v. Williams, 74 F. 94, 103 (8th Cir. 1896))). But see Stoddard v. Mfrs. Nat'l Bank, 593 N.W.2d 630, 633 (Mich. Ct. App. 1999) (noting, in case involving unauthorized sale of collateral, that the parties agreed on the measurement of damages being based on the highest intermediate value between the time the owner had notice of conversion and the expiration of a reasonable period).

\(^6\) See Roxas, 969 P.2d at 1269; Hoffman v. Dorner, 447 N.Y.S.2d 20, 22 (N.Y. App. Div. 1982) (holding that a coin collector could recover based on the highest proven numismatic value over pertinent period; otherwise, recovery would be based on bullion value); Mohoff v. Northrup King & Co., 380 P.2d 983 (Or. 1963) (addressing conversion of grass seed); W. Sec. Co. v. Silver King Consol. Mining Co., 192 P. 664, 672 (Utah 1920) (discussing conversion by wrongful sale of pledgee); RESTATEMENT (SECOND) OF TORTS § 927 cmt. e, illus. 5 (1976); cf. Rogers v. Standard Steel Castings Co., 16 Ohio App. 474, 484–85, (Ohio Ct. App. 1922) (concluding that owner of ferro manganese converted by firm receiving the ferro manganese in error can recover previously negotiated resale price, an amount over the value at the time of conversion, where the owner acquired notice of conversion too late to cover in the market and perform the contract). But see Broadwater, 854 P.2d at 531–32 (stating that the jurisdiction followed the "New York" rule; describing that rule as "set[ting] the measure of damages as the highest intermediate value of the stock between the time of conversion and a reasonable time after the owner receives notice of the conversion;" and affirming a finding that ninety days was reasonable in the context). One rationale for postponing the measuring period until the plaintiff has notice is that the plaintiff's lack of notice of conversion typically will evidence that the plaintiff was not seeking to trade. E.g., Schultz, 716 F.2d at 140–41; CHARLES T. MCCORMICK, HANDBOOK ON THE LAW OF DAMAGES § 48, at 189 (1935).


\(^6\) Cf. Quest Med., Inc., 90 F.3d at 1086 n.6 (stating that, in construing Texas law,
time of the conversion until the time of trial or the time a verdict or judgment is issued.\(^6\)

There are other nuances that might affect the calculation of the proper remedy.\(^5\) For example, securities are frequently the subject matter of these lawsuits.\(^6\) The per share value may vary based on the amount of securities involved.\(^6\) In addition, receipt

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\text{"[t]he measure of damage in a stock conversion suit is the market value of the stock at the time of the conversion. If the conversion of the stock is attended by fraud, wilful wrong, or gross negligence, then the measure of damages is the highest market value between the date of the conversion and the filing of suit";}\] Nelson v. All Am. Life & Fin. Corp., 889 F.2d 141, 148 (8th Cir. 1989) (quoting, in a case involving conversion arising from an improper merger, old Iowa authority, Loetscher v. Dillon, 93 N.W. 98, 101 (Iowa 1903), providing the measure of damage should be the highest value between the conversion and the time of bringing action where the purchase price had been previously paid and suit was not unreasonably delayed; otherwise, the highest value from conversion to a reasonable time to replace).

\(^6\) GA. CODE ANN. § 44-12-152 (2002); Brown v. Campbell, 536 So. 2d 920, 922 (Ala. 1988); cf. Quealy v. Paine, Webber, Jackson & Curtis, Inc., 475 So. 2d 756, 762 (La. 1985) (stating that "where a commodity which fluctuates in value is converted, its owners should be given the benefit of better prices that prevailed within a few months afterwards," but affirming a trial court award of damages based on the value on the day before trial, representing a thirty percent increase over the value at the time of conversion, six years before); Ludwig v. Kowal, 419 A.2d 297, 300, 303–04 (R.I. 1980) (selecting value as of the date of the affidavit supporting plaintiff’s motion for summary judgment, which was higher than the value at the time of their theft by the defendant, and applying a statute governing civil liability for crimes); Cooper-Smith Co. v. Bell, 134 S.E. 658, 659–60 (S.C. 1926) (placing the valuation within the discretion of the jury).

\(^6\) Kaplan v. Cavicchia, 257 A.2d 739, 742 (N.J. Super. Ct. App. Div. 1969) (addressing conversion of securities). Montana law provides the following presumption: "the value of the property at the time of its conversion with the interest from that time or when the action has been prosecuted with reasonable diligence, the highest market value of the property at any time between the conversion and the verdict without interest, at the option of the injured party." MONT. CODE ANN. § 27-1-320(1)(a) (2003). North Dakota, Oklahoma, and South Dakota have similar presumptions.

\(^6\) See, e.g., Caballero v. Anselmo, 759 F. Supp. 144, 152–53 (S.D.N.Y. 1991) (finding that a period of time comprising nine and a half years, ending ten days after plaintiff reached age of majority, was reasonable); Stoddard v. Mfrs. Nat’l Bank, 593 N.W.2d 630, 636 (Mich. Ct. App. 1999) (holding that a reasonable time period concerning the unauthorized sale of collateral was not extended by the plaintiff’s financial inability to effect cover).

\(^6\) Originally at common law, an action for trover would not lie for the owner of stock because the property was intangible. 11 WILLIAM MEADE FLETCHER ET AL., FLETCHER CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS § 5113, at 123 (perm. ed., rev. vol. 2003). Where the subject matter is a partnership interest that is not evidenced by a document, it may not be subject to conversion. See generally Montecalvo v. Mandarelli, 682 A.2d 918, 928–29 (R.I. 1996) (stating no conversion action is available where a partnership interest is not memorialized in a document).

\(^6\) See, e.g., Broadcort Capital Corp. v. Summa Med. Corp., 972 F.2d 1183, 1192–93 (affirming the jury damage award greater than the per share value at the time of conversion, or the refusal to register securities transfer, where the purchase of the amount of securities in question would have been sufficient to affect market prices).
of the value in conversion does not fully delimit the victim's possible remedies. For instance, an owner might alternatively seek restitution based on either the value at a reasonable period of time following the conversion,\textsuperscript{68} or the amount realized in a subsequent sale of the converted property.\textsuperscript{69}

III. REGISTRATION RIGHTS

A. Background

1. Registration Rights Generally

Unregistered sales of securities—sales not registered under the 1933 Act—provide an important segment of business finance. Venture capital firms acquire unregistered, also known as "restricted,"\textsuperscript{70} securities of developing businesses—businesses too immature to access the public capital markets.\textsuperscript{71} Unregistered issuances of securities, however, are not limited to developing firms. For example, very large sums are raised by public companies through unregistered sales of debt securities.\textsuperscript{72}

An investor's resale of a security that was bought in an unregistered transaction must either be registered under the 1933 Act

\textsuperscript{68} See RESTATEMENT OF RESTITUTION AND UNJUST ENRICHMENT § 151 cmt. c (1936).

\textsuperscript{69} E.g., Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Clayton, 488 F.2d 974, 975 (5th Cir. 1974); Frey v. Frankel, 443 F.2d 1240, 1243–44 (10th Cir. 1971); cf. Transcon. Oil Corp. v. Trenton Prods. Co., 560 F.2d 94, 111 (2d Cir. 1977) (allowing evidence of amount tortfeasor received for purposes of ascertaining damages); Siedlecki v. Powell, 245 S.E.2d 417, 420 (N.C. Ct. App. 1978) (valuing the stock of close corporation in breach of contract action by reference to defendant's stock sale proceeds, where a merger of the defendant prevented plaintiff from proving the value of the stock).


\textsuperscript{71} See generally Raymond Hennessey, IPO's Are More Than Fund-Raisers: Some Tech Firms Go Public to Boost Their Credibility With Potential Customers, WALL ST. J., June 10, 2002, at C5 (“Lately, credibility has become a reason to go public, particularly for technology companies trying to send a message to potential customers that their business is in good shape.”).

\textsuperscript{72} See generally Laura Santini, Crunch Lifts Private Debt: As Banks Shy Away from Lending to Small Companies, Private Placements Gain, INVESTMENT DEALERS DIG., Feb. 25, 2002, at 13–14 (“[U]nderwriters of private debt placements are executing more and more of these behind-closed-doors financing deals. In 2001, the top 15 underwriters of straight private debt executed 1,860 deals totaling $443.53 billion, a 25% increase over 2000, in which 1,647 issues worth $355.72 billion were completed . . . .”).
or be covered by an available registration exemption.\textsuperscript{73} Thus, the ability to register the resale provides an important exit strategy. However, registration of an investor's resale of securities requires the participation of the issuer.\textsuperscript{74} The issuer must prepare, execute, and file certain documents with the SEC.\textsuperscript{75} The law does not impose on the issuer an implied obligation to register sales upon the request of a securityholder.\textsuperscript{76} Investors therefore frequently bargain for contractual rights, or "registration rights," to require issuers to register subsequent resales of securities.\textsuperscript{77}

There are two basic types of registration rights—\textit{demand} registration rights and \textit{piggyback} registration rights. Demand registration rights allow the holder to demand the registration of the covered securities at a time chosen by the holder.\textsuperscript{78} Piggyback reg-

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\textsuperscript{74} See 15 U.S.C. §§ 77f.

\textsuperscript{75} See id.

\textsuperscript{76} Cf. Blyth Eastman Dillon & Co., SEC No-Action Letter, 1975 WL 10565, at *1 (July 29, 1975) (illustrating holder of unregistered shares asserting that it could not compel their registration); JOSEPH W. BARTLETT, \textit{EQUITY FINANCE: VENTURE CAPITAL, BUYOUTS, RESTRUCTURINGS AND REORGANIZATIONS} § 9.4, at 195 (2d ed. 1995) ("[R]egistration rights are often the only exit vehicle which, as a practical matter, the minority shareholders can compel."); Alan K. Austin et al., \textit{The Acquisition as Exit Strategy: Special Issues When Public Companies Acquire Privately Held Companies, in ACQUIRING OR SELLING THE PRIVATELY HELD COMPANY} 2002, at 1137, 1141 (PLI Corp. L. & Prac. ed., 2002), available at WESTLAW, 1314 PLI/Corp. 1137 (indicating that a stockholder without registration rights "may not be able to force the issuer to register the stockholder's securities").


As an alternative to registration rights, an issuer may agree to provide for the ability to resell securities immediately under a registration statement effective as of the consummation of the private placement. See 7A J. WILLIAM HICKS, \textit{EXEMPTED TRANSACTIONS UNDER THE SECURITIES ACT OF 1933} § 7.246, at 7-34 to -343, § 7.264, at 7-374 to -376 (2d ed. 2004) (discussing private-investment, public-equity offerings).

\textsuperscript{78} Hazen asserts demand registration rights are rare. HAZEN, \textit{supra} note 77, §
administration rights provide the holder more limited rights; the holder's ability to register the securities is triggered by the issuer registering other securities. The holder of the piggyback registration rights thus cannot select the timing of the registration. Registration rights also may be triggered by other events.

Both kinds of registration rights—demand and piggyback—may allow the promisee to register securities for resale at a future time. For example, a registration statement might become effective and cover the resale of a security made months later. It can be beneficial to register securities for resale at a later time, because the registration process itself can take months. Registering the sale in advance allows a securityholder to take advantage of market movements quickly or to address unexpected liquidity needs.

2. Litigation Involving Registration Rights; Other Restrictions on Liquidity of Securities

Various aspects of registration rights have given rise to litigation, including whether the rights have been triggered, whether they have been breached, whether a breach has been excused.

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81. See, e.g., infra note 119 and accompanying text.

82. See, e.g., Canfield v. Reynolds, 631 F.2d 169, 175–77 (2d Cir. 1980) (stating that a particular registration obligation is absolute, not merely "best efforts"); REA Express, Inc. v. Interway Corp., 538 F.2d 953, 954–55 (2d Cir. 1976) (holding, in reversing trial court construction of registration rights, that conversion of convertible preferred stock into common stock was not a condition precedent to securityholder's right to require registration of the underlying common stock).

83. See e.g., Lipsky v. Commonwealth United Corp., 551 F.2d 887, 894 n.9 (2d Cir. 1976) (discussing the possibility that the views of the SEC, which entered a consent judgment with the issuer, may be pertinent to assessing whether a best efforts obligation has been fulfilled); United Telecomm., Inc. v. Am. Television & Communications Corp., 536 F.2d 1310, 1316 (10th Cir. 1976) (affirming a failure to grant a directed verdict for the defendant on plaintiff's claim that a merger agreement to which the issuer was a party conflicted with performance of a best efforts registration obligation, stating a jury could find "the agreement to merge set in motion a chain of events which made registration incompatible with merger"); Republic Tech. Fund, Inc. v. Lionel Corp., 483 F.2d 540, 552–53 (2d Cir. 1973) (holding a delay arising from the original filing of misleading financial statements could breach a best efforts registration obligation); KERS & Co. v. ATC Communi-
and the meaning of contractual obligations to repurchase securities if they are not registered, among others. Oliver Wendell

84. See, e.g., Waste Mgmt., Inc. v. Deffenbaugh, 534 F.2d 126, 128–29 (8th Cir. 1976) (affirming the trial court's finding that the issuer's apprehension that the SEC would issue a stop order did not excuse the issuer's failure to comply with an obligation to use "all reasonable efforts" to register shares); Robert L. Ferman & Co. v. Gen. Magnaplate Corp., 33 F.R.D. 326, 330-31 (D.N.J. 1963) (holding issuer's obligation to register shares under the 1933 Act, if it were impossible to obtain an exemption from registration—treated by the court as a reference to Regulation A, codified at 17 C.F.R. §§ 230.251–263—was not excused by a holder's failing the so-called "bad boy" requirements of Regulation A); BioLife Solutions, Inc. v. Endocare, Inc., 838 A.2d 268, 277–78 (Del. Ch. 2003) (registration obligation subject to ninety-day postponement if the issuer's CEO provided the stockholder notice that registration would be "seriously detrimental" to the issuer; registration not excused where issuer was involved in preliminary acquisition discussions but did not send the required notice); Kupferman v. Consol. Research & Mfg. Corp., No. 61 Civ. 3641, 1962 U.S. Dist. LEXIS 5405, at *30–31 (S.D.N.Y. Dec. 19, 1962) (rejecting a defense that the issuer's failure to make the filing to register shares was excused where the SEC allegedly would not have declared it effective; the issuer's conduct, resulting in inaccuracy of its filings, was found to have been the major factor accounting for that possibility); Philipbar III v. Nat'l Patent Dev. Corp., [1966–1967 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 91,930, at 96,189 (N.Y. Civ. Ct. Apr. 24, 1967) (suggesting an issuer's inability to register shares subject to registration rights, arising from the issuer's absence of a record of earnings, constituted a defense to breach of the registration rights, citing cases referencing obligations to deliver "gold dollars"); Yoffe v. Keller Indus., Inc., 443 A.2d 358, 363 (Pa. Super. Ct. 1982) (where the SEC was investigating the issuer's accounting, a delay in registration arising from SEC's failure to review registration statement did not breach the registration rights). But cf. Simon v. Electrospace Corp., 320 N.Y.S.2d 225, 234 (N.Y. 1971) ("As for defendant's argument that no more stock could have been distributed without restriction, under requirements of the Securities and Exchange Commission, it holds no water. In the first place, that was the obligation of defendant and its predecessor and if not performable in specie it must have been performed then or now in money value (damages).")

85. See, e.g., Paragon Int'l, N.V. v. Standard Plastics, Inc., 353 F. Supp. 88, 92–93 (S.D.N.Y. 1973) (granting summary judgment in favor of a holder of registration rights and its assignee for the failure of affiliates of the issuer to discharge their obligations to repurchase the covered shares upon failure of the shares to be registered); Baxter v. Lancer Indus., Inc., 213 F. Supp. 92, 96 (E.D.N.Y. 1963) (holding an issuer's obligation to repurchase common stock conditioned upon a registration statement not becoming effective was subject to the additional implied-by-law condition that the issuer have sufficient surplus to effect the repurchase); Murphy v. Royal Am. Indus., Inc., 188 So. 2d 884, 888–
Holmes famously noted, "The duty to keep a contract at common law means a prediction that you must pay damages if you do not keep it,—and nothing else." 87 The value of a contractual obligation to provide an increase in liquidity, e.g., a registration right, is limited by the extent to which the promisee is entitled to compensation for a breach. Where the remedy is not fully compensatory, that failure can adversely affect the process by which capital is raised and allocated—a potentially serious concern.

Restrictions on the liquidity of a security have to be valued in a number of contexts. For example, litigation has involved breach of obligations to deliver restricted stock, 88 a broker's refusal to ef-


87. O.W. Holmes, The Path of the Law, 10 HARV. L. REV. 457, 462 (1897). See generally id. ("But such a mode of looking at the matter stinks in the nostrils of those who think it advantageous to get as much ethics into the law as they can.").

88. See, e.g., Scully v. US Wats, Inc., No. 97-4051, 1999 WL 391495, at *4 (E.D. Pa. June 8, 1999) (finding a thirty percent discount appropriate to value particular restricted securities, where the experts had proposed discounts of twenty-nine percent and forty-five percent), modified, No. 97-4051, 1999 WL 592695 (E.D. Pa. June 10, 1999), aff'd in part and rev'd in part, 238 F.3d 497 (3d Cir. 2001); cf. Hagerman v. Yukon Energy Corp., 839 F.2d 407, 412–13 (8th Cir. 1988) (affirming district court holding an argument to be waived, as not timely raised; argument asserted that the defendant was obligated to deliver restricted shares and, therefore, damages should be reduced to account for the shares being restricted). Where the restricted securities are subject to resale under Rule 144, codified at 17 C.F.R. § 230.144 (2004), and capable of being quickly processed for resale (resale typically requiring, inter alia, removal of a restrictive legend), the court may merely postpone the date as of which damages are measured until the time that processing would have been completed. See Telemark Dev. Group, Inc. v. Mengelt, 313 F.3d 972,
fect a securities sale requested by a customer,\textsuperscript{89} and fraud in connection with restricted stock,\textsuperscript{90} among other matters.\textsuperscript{91} In addition, when mutual funds fulfill their obligations to value their portfolios, they may be required to value restricted securities—obligations that can give rise to litigation if not properly performed.\textsuperscript{92} And courts have assessed the materiality of false statements that securities were registered, an assessment that is


\textsuperscript{90} See, e.g., Sowell v. Butcher & Singer, Inc., 926 F.2d 289, 300 (3d Cir. 1991) (stating, in a case involving common law fraud, “We think it clear that while the fact that a stock is unregistered will have an impact on its value, the lack of registration does not automatically reduce the value of the stock to zero”); Roech Bros. v. Rhoades, 527 F.2d 891, 894–95 (3d Cir. 1975) (remanding to determine discount attributable to securities being restricted); Am. Mobile Communications, Inc. v. Nationwide Cellular Serv., Inc., No. 91 Civ. 3587 (LBS), 1992 U.S. Dist. LEXIS 13156, at *9–15 (S.D.N.Y. Sept. 3, 1992) (deciding not to dismiss claims alleging wrongful omission of an intent to dishonor an obligation to register); cf. Moore v. Gorman, 75 F. Supp. 453, 454–55 (S.D.N.Y. 1948) (citing omission of circumstances violating the “bad boy” provisions of a predecessor to the current version of Regulation A).

\textsuperscript{91} See, e.g., Syverson v. Firepond, Inc., No. 03-2415, 2004 U.S. App. LEXIS 18982, at *11–12 (8th Cir. Sept. 9, 2004) (holding unreasonable stockholders’ alleged reliance, in connection with agreeing to sign lock-ups during an underwritten offering, on representations that all stockholders were signing lock-up agreements, because the form of lock-up allowed waiver of the transfer restriction by the underwriter); Oregon Steel Mills, Inc. v. Coopers & Lybrand, LLP, 83 P.3d 322, 331–32, 332 n.12 (Or. 2004) (holding decreased proceeds realized in securities offering caused by a forty-day delay was not a foreseeable consequence of an accounting firm’s allegedly negligent provision of professional services two years previously and distinguishing authority concerning a broker’s failure to effect a securities transaction).

\textsuperscript{92} See, e.g., In re Rockies Fund, Inc., Initial Decisions Release No. 181, 2001 SEC LEXIS 443, at *67 (Mar. 9, 2001) (rejecting the respondents’ contention that it was proper to value restricted securities at the same price as unrestricted securities of the same class); In re Parnassus Invs., Initial Decisions Release No. 131, 1998 SEC LEXIS 1877, at *46 (Sept. 3, 1998) (accepting a discount magnitude of fifty percent proposed by an expert for the SEC, where a security was convertible into restricted stock); In re Lynch, Exchange Act Release No. 11737, Investment Advisers Act Release No. 481, 46 S.E.C. 5, 6–7 (Oct. 15, 1975) (affirming an administrative law judge’s finding that valuations were fraudulent where, inter alia, restricted securities were valued at the prices of unrestricted securities); In re Mates Fin. Servs., Exchange Act Release No. 8836, Investment Advisers Act Release No. 258, 44 S.E.C. 246, 253–54 (Mar. 9, 1970) (“The valuation of restricted securities at the market quotations for unrestricted securities of the same class, or at slight discounts from such quotations, is improper except in most unusual circumstances not present here.”).
based on the impact of the lack of registration on the value of the securities. 93

There are also some academic empirical analyses of discounts for restricted stock. However, the range of values is substantial, 94 making that evidence not dispositive for purposes of assessing value in litigation.

The failure to comply with registration rights does not necessarily eliminate all liquidity in the covered securities. Restricted securities can be resold in unregistered transactions where an exemption from registration is available, for example, under section “4(1½)” 95 or Rule 144. 96 Depending on the context, the resale in an exempt transaction may yield only a fraction of the proceeds of a similar registered sale. 97

Breach of registration rights may arise in two different ways. The distinction fundamentally affects the measurement of damages for breach. In one set of cases, the breach is triggered by the securityholder's desire to sell, or it otherwise arises at a time

93. See Stone v. Fossil Oil & Gas, 657 F. Supp. 1449, 1459–60 (D.N.M. 1987) (liability under section 12(a)(2) of the 1933 Act for selling restricted stock by means of a false representation that the stock was registered); Korber v. Lehman, 245 N.Y.S.2d 830, 831–32 (N.Y. Sup. Ct. 1963) (failure to disclose the stock was restricted); cf. Lipsky v. Commonwealth United Corp., 551 F.2d 887, 894–98 (2d Cir. 1976) (holding that the question of whether failure to comply with a best efforts registration obligation is material for purposes of justifying rescission is a question of fact, which could not be properly disposed of under FED. R. CIV. P. 12(b)(6)); Ohashi v. Verit Indus., 536 F.2d 849, 851–52 (9th Cir. 1976) (holding that the plaintiff had stated a claim by alleging the seller of securities misrepresented efforts to remove transfer restrictions on restricted stock).

94. See Michael Hertzel & Richard L. Smith, Market Discounts and Shareholder Gains for Placing Equity Privately, 48 J. FIN. 459, 478 tbl. VI (1993) (finding average discounts of about thirty-five percent for placements of up to $25 million, decreasing to single-digit percentage points for offerings above $75 million); William L. Silber, Discounts on Restricted Stock: The Impact of Illiquidity on Stock Prices, FIN. ANALYSTS J., July-Aug. 1991, at 60 (finding private placements of stock, in a sample of sixty-nine issuers, were, on average, at a 33.75% discount from the price at which the stock traded publicly).

95. See HAZEN, supra note 77, § 4.30, at 268–76 (defining the section 4(1½) exemption).


where it is clear the securityholder desires to sell. This type of case can be described as involving a focused liquidity restriction. The term is used to reference liquidity restrictions where, from the context, it is clear that the impact of the liquidity restriction is focused on a specific time. For example, the securityholder may desire to sell promptly and may ask that the securities be registered. This context focuses the damage inquiry on examining when the registration could have been effected and market prices at that time.

In other cases, the breach arises independent of a desire to use the registration rights immediately. For example, the issuer's SEC reporting may become inaccurate for unrelated reasons, and the issuer may therefore suspend effectiveness of the registration. Alternatively, the issuer may merely repudiate its registration obligations. One might term these latter cases as involving inchoate liquidity restrictions, where the impact of the breach is inchoate—principally not arising until the promisee seeks to sell the securities.

Valuation of damages typically is easier in the former cases, involving focused liquidity restrictions. The court would look to what the securityholder would have realized in selling the securities at the pertinent time. These valuations are not necessarily trivial, however. For example, volatility in the market value of the security can materially affect damages. A number of courts apply the "highest intermediate value" approach, computing damages based on an assumed sale of the securities at the highest price realized in the market in a reasonable period of time fol-

98. See, e.g., Commonwealth Assoc. v. Palomar Med. Techs., 982 F. Supp. 205, 207, 209 (S.D.N.Y. 1997) (basing damages on average price over two weeks following when registration could have occurred, based on time promisee requested registration of warrants and delivery of underlying shares (adding the time required to effect registration), and based on promisee's need for cash to meet other obligations at that time); Kupferman, [1961-1964 Transfer Binder] Fed. Sec. L. Rep. (CCH) at 93,953 (supporting the prompt sale by fact that receiver appointed to run the securityholder); Siegler, [1961-1964 Transfer Binder] Fed. Sec. L. Rep. (CCH) at 94,211 (addressing securities that were sold while restricted).

99. See, e.g., infra notes 165-68 and accompanying text.

100. In some cases, however, the breach might have an immediate adverse impact, even though the promisee did not desire to sell the securities immediately. For example, the securities might be collateral for debt that by its terms was accelerated upon the suspension of registration.

101. See generally supra notes 58-61 (discussing the use of this measure in claims of conversion).
lowing breach. More recent cases calculate an average price over the pertinent period.

With an asset having a fluctuating value, small changes in the "reasonable period" selected may significantly affect the damages awarded using the highest intermediate value test. The courts have not developed firm rules governing what constitutes a "reasonable period." That is to be expected. If the reasonable period is designed to reflect the time period in which one could make a commercially reasonable sale, that time period would be based on a number of factors, including the amount of securities to be sold and the liquidity of the market. A single time period would not be appropriate for all contexts.

Although there are some difficulties in measuring damages for breach of registration rights in that context, the problems are significantly greater when the breach involves inchoate liquidity restrictions. As discussed below, in those cases, case law provides what the authority itself admits is only "rough justice." It


105. For example, the court in Lawrence Fund L.L.P. had to value a breach of registration rights where the securities remained in the plaintiff's possession at the time of trial and were subject to resale under Rule 144, codified as amended at 17 C.F.R. § 230.144 (2004), one month after the opinion was issued. Lawrence Fund, 1996 U.S. Dist. LEXIS 8870, at *25-26. The court, in a procedure inconsistent with the weak form of efficiency, computed damages by assuming the stock's price trend in the preceding few months would continue in the following month. See id. at *26.

106. See infra note 141 and accompanying text. Of course, difficulty in computing damages depends on the absence of an enforceable liquidated damages provision. See generally Cranshire Captial, L.P. v. Trimfast Group, Inc., No. 00 C 3510, 2001 U.S. Dist. LEXIS
only hazards a guess at an appropriate damage measure. It can only provide a guess, because the authority does not identify a textured principle from which a damage measure can be deduced. Following the discussion of that authority in this Part III, this Article develops a principle from which a reasonable damage measure can be derived.

Although a relatively small number of reported cases have involved a breach creating inchoate liquidity restrictions, providing a justifiable rationale for damage computations in these cases has benefits in a wider range of disputes. It appears that the absence of a justifiable damage measure in this class of cases may cause a court to strain to find that the promisee has adequately proved what it would have done had the promisor performed. That allows the court to reference more justifiable damage principles, albeit ones that may not provide compensation appropriate to the actual context. For example, one court used jury instructions for

8463 (N.D. Ill. June 18, 2001) (construing a liquidated damages provision applicable to breach of a registration obligation).

One curious case involving registration rights specifying a method of computing damages is *Finance Authority of Maine v. L.L. Knickerbocker Co.*, 106 F. Supp. 2d 44 (D. Me. 1999). The agreement provided that, if stock were not registered within one year of its sale, the issuer would “‘indemnify each holder of Registrable [issuer] Shares for any diminution in value of the Registrable [issuer] Shares which occurs between the 365th day and the date of sale of said Registrable [issuer] Shares.’” *Id.* at 51–52 (quoting the agreement). The agreement also provided that specific performance should be available to the fullest extent permitted by law. *Id.* at 52. A few months thereafter, the SEC revised the version of Rule 144 then in effect, 17 C.F.R. § 230.144 (1996), to decrease the minimum holding period and the period when volume restrictions no longer applied to non-affiliates. Revision of Holding Period Requirements in Rules 144 and 145, Securities Act Release No. 7390, 62 Fed. Reg. 9242, 9242 (Feb. 28, 1997). Without addressing whether the plaintiff was an affiliate, whether there was any reason why the plaintiff had been unable to sell the stock under Rule 144 within the eighteen months between the expiration of the one-year period under Rule 144 and the time the court issued its opinion, or why future sales in compliance with the volume restrictions of Rule 144 would not be appropriate, the court ordered the issuer to register the stock within sixty days, accompanied by an express warning “that failure to do so may result in a finding of contempt and assessment of penalties.” *Finance Authority of Maine*, 106 F. Supp. 2d at 52.

The case is also anomalous because the plaintiff seemed to argue that the express indemnification provision did not preempt a claim for consequential damages arising from a breach of a “best efforts” registration obligation. The court found as follows concerning the claim for damages for an inchoate breach:

The Court further finds, however, that Plaintiffs’ claim for damages resulting from this breach is too speculative to permit recovery since it is impossible to determine when the damages, if any, accrued within the 365 days after the date of the Registration Agreement or the amount of those damages as the price of the . . . stock was subject to change on a daily basis.

*Id.*
computing damages as reflecting an assumed immediate sale of the securities, in an IPO that triggered registration rights, even though the registration rights appear not to have required an immediate sale.\(^{107}\) Whether the stockholder would have sold

\(^{107}\) In *O'Sullivan v. Joy Technologies, Inc.*, 666 A.2d 664 (Pa. Super. Ct. 1995), a shareholder had piggyback registration rights covering stock of Joy Technologies, which at the time was a private company. See id. at 665–66 (describing a subsequent offering as an initial public offering). Although the matter is not entirely free from doubt, it appears the shareholder need not have elected to sell shares at the time of the offering triggering the registration rights. See id. at 666. The issuer consummated an initial public offering in November 1991 without complying with its contractual obligation to provide the shareholder advance notice of the offering and an opportunity to exercise his piggyback rights. See id. At the time of the public offering, which was at $17 per share, the plaintiff owned 50,000 shares. Id. Although not reported in the opinion, the shares traded as high as $18 in that month, but stayed below $17 for the issuer's following five fiscal quarters. *Joy Technologies, Inc.*, 1992 ANNUAL REPORT ON FORM 10-K, at 12 (1993).

Shortly after the IPO, the shareholder wrote the issuer, “Had I been properly notified, I would have requested that all my shares be included in the registration. Based on the oversubscription, it appears my request could have been accommodated.” *O'Sullivan*, 666 A.2d at 666.

The jury instructions at trial stated, “If you do award damages your award should be limited to the difference between the price [the shareholder] could have obtained for his shares in the Initial Public Offering and the price he could have obtained for his shares within a reasonable time after the Initial Public Offering.” Id. at 670 n.6. Damages awarded on this basis were affirmed on appeal. Id. at 671.

The jury instruction provides for damages based on an assumed sale in the IPO. See id. at 670 n.6. What the shareholder would have done would seem to be a question of fact, typically to be resolved by the jury, particularly where the matter is necessarily speculative—what the shareholder would have done in a hypothetical circumstance. One can support this jury instruction in a few ways. It may be that the defendant did not challenge the assertion that the plaintiff would have sold the stock immediately (providing a result close to that from the most beneficial timing for the plaintiff, as would have been clear ex post, as of the time of trial). Alternatively, the court may have sought a defensible choice as close as possible to the choice providing the plaintiff the highest possible damages. Lastly, the court may have selected this date because it was a reasonable interpretation of the facts that facilitated computation of damages. Interpretation of this aspect of the opinion remains uncertain, as this issue was not one of the bases of the appeal. See 666 A.2d at 667.

A related context is presented in *Wulfing v. Kansas City Southern Industries, Inc.*, 842 S.W.2d 133, 143 (Mo. Ct. App. 1992). In that case, the issuer becoming an investment company complicated the registration process. The inexperience of counsel exacerbated the difficulties. See id. The plaintiff presented the jury with evidence that he would have sold the shares promptly upon the effectiveness of the registration. Id. at 144–45. The appellate court affirmed the trial court's use of a jury instruction that merely called for damages in an amount that would “fairly and justly compensate plaintiff.” Id. at 154–55. The jury instruction provided:

“[Y]ou must award plaintiff such sum as you believe will fairly and justly compensate plaintiff for any damages you believe he sustained as a direct result of defendant's failure to cause [the issuer] to file a registration statement with the Securities Exchange Commission as expeditiously as possible so as to permit public sale of plaintiff's shares of [the issuer].”

Id. at 154 (quoting jury instruction). The appellate court disclaimed the need for a more
would seem to be a jury question and, therefore, not one to be determined by the court. Thus, formulating a proper damage measure will assist in providing more appropriate resolutions in a wider range of cases. Moreover, the principles developed in this Article to value breach of registration rights are more broadly applicable to causes of action involving other property having a fluctuating value. This Part now turns to reviewing the authority addressing valuation of breach of inchoate liquidity restrictions.

B. Initial Authority

The principal authority addressing valuation of inchoate liquidity restrictions arising from breach of registration rights is Madison Fund, Inc. v. Charter Co. and Duncan v. TheraTx, Inc. Madison Fund concerns a securityholder, Madison Fund, that had piggyback registration rights covering a $3 million investment in Charter Company restricted common stock. Madison Fund's registration rights were not conditional on its participating in the offering triggering the rights. Madison Fund could request its shares be registered for subsequent resale. Charter Company was obligated to use its "best efforts" to cause a registration statement to become effective "as promptly as practicable" following a request.

Madison Fund requested registration of its shares in response to a registered underwritten offering. Madison Fund, however, declined to participate in the underwritten offering, finding the price unattractive, and sought to have its shares registered for subsequent resale. Madison Fund's shares could have been covered in a registration statement filed in October 1971 and should complete instruction, stating, "[t]here is no idiosyncracy of theory or evidence that transmutes [the plaintiff's] claim from an ordinary breach of contract, to a breach of a special type of contract with special damages, and so subject to an instruction that restricts the recovery to the special proof." Id.

109. 775 A.2d 1019 (Del. 2001).
111. See id.
112. Id. (requiring registration statement be kept effective for at least nine months).
113. Id.
114. Id. at 600.
115. Id. at 601.
have been registered on December 4, 1971.\textsuperscript{116} However, based on a misunderstanding of applicable law,\textsuperscript{117} the issuer's counsel failed to file a registration statement for the shares until mid-December 1971.\textsuperscript{118}

The delay caused by this mistake, coupled with subsequent events outside Charter's control, resulted in the second registration statement, covering Madison Fund's shares, not becoming effective until August 31, 1972, almost nine months after it was first filed.\textsuperscript{119} The stock price, which on December 3, 1971, had a high bid\textsuperscript{120} price of $29.50, rose to a high of $45.25 per share on January 28, and declined thereafter to $29.375 on August 31, 1972.\textsuperscript{121} Madison Fund sold its shares over the nine months following the registration of its shares at an average price of slightly less than $23 per share.\textsuperscript{122}

There was no definitive proof of the timing in which Madison Fund would have sold its shares had Charter complied with the registration rights.\textsuperscript{123} However, during the course of conversations between Madison Fund and the underwriters of the December 1971 offering, Madison Fund's counsel had indicated that Madison Fund would have been interested in participating in an underwritten offering at a price of at least $42 per share.\textsuperscript{124} During the litigation, Madison Fund argued this evidence demonstrated that, had its stock been registered in December 1971, Madison Fund would have held the stock until it reached approximately $40 per share.\textsuperscript{125}

\begin{itemize}
  \item \textsuperscript{116} \textit{Id.} at 602, 605.
  \item \textsuperscript{117} The pertinent provision was former Rule 10b-7, codified at 17 C.F.R. § 240.10b-7 (1971), which limited the ability of an underwriter to stabilize an offering of Charter's shares when Charter had simultaneously registered a separate resale by a shareholder. \textit{Id.} The SEC would have allowed Charter to register both the underwritten offering and Madison Fund's sales on the registration statement that was filed in October 1971, with effectiveness of Madison Fund's sales postponed for a few days, until consummation of the underwritten offering. \textit{Madison Fund}, 427 F. Supp. at 607.
  \item \textsuperscript{118} \textit{Id.}
  \item \textsuperscript{119} \textit{Id.}
  \item \textsuperscript{120} "The bid is the price at which the market maker is prepared to buy . . . ." \textsc{John C. Hull}, \textsc{Options, futures, and other derivative securities} 144 (2d ed. 1993).
  \item \textsuperscript{121} \textit{Id.}
  \item \textsuperscript{122} \textit{Id.} at 605–66.
  \item \textsuperscript{123} \textit{See id.} at 608 ("[T]here can be no certainty that Madison would have sold its Charter shares between December 3, 1971, and August 31, 1972, if it had been free to do so.").
  \item \textsuperscript{124} \textit{Id.} at 601.
  \item \textsuperscript{125} \textit{Id.} at 608.
\end{itemize}
gued it should have received damages based on a share price of $40. The court, however, rejected awarding damages on that basis, concluding that doing so would "credit" Madison Fund with unwarranted "market prescience."

The court also considered whether damages should be determined by analogy to treatment of delayed delivery of goods having a fluctuating value. "In such cases, Williston tells us, 'The normal measure of damages . . . is the difference in value of the goods at the date contracted for and their value when delivered.'" The court noted two cases following a similar approach, one involving delayed delivery of foreign currency purchased for resale, and a second concerning delayed delivery of securities. The court distinguished those cases on the basis that they apparently involved uninterrupted (monotonic) market declines. The court ultimately adopted a damage measure derived by analogy to cases involving conversion of stock or similar commodities having a fluctuating value.

A judgment finding conversion essentially represents a forced sale of the property to the defendant. The court noted that modification of the measure of damages available in conversion was required because the plaintiff retained the property. Instead of entirely losing the property, however, the plaintiff merely had enjoyment of one of the property rights in the stock, the right to transfer, impeded. The court found the appropriate damage measure to be the highest bid price for the stock over a reasonable period after the stock should have been registered minus the average price over a reasonable period of time after it was regis-

126. See id.
127. Id.
128. Id. (alteration in original) (quoting 11 SAMUEL WILLISTON, A TREATISE ON THE LAW OF CONTRACTS § 1390 (Walter H.E. Jaeger, ed., 3d ed. 1968)).
129. Id. at 609 (citing Richard v. Am. Union Bank, 253 N.Y. 166 (1930) and Oglesby v. Allen, 408 F.2d 1154 (5th Cir. 1969)).
130. Id. at 609.
131. Id. at 609–10.
132. See, e.g., Pearson v. Dodd, 410 F.2d 701, 706 (D.C. Cir. 1969) ("The most distinctive feature of conversion is its measure of damages, which is the value of the goods converted. The theory is that the 'converting' defendant has in some way treated the goods as if they were his own, so that the plaintiff can properly ask the court to decree a forced sale of the property from the rightful possessor to the converter." (citation omitted) (citing William L. Prosser, The Nature of Conversion, 42 CORNELL L.Q. 168, 170 (1957))).
133. See Madison Fund, 427 F. Supp. at 609.
134. See id.
tered.\textsuperscript{135} The court stated, "This Court concludes that the 'average price' standard is appropriate in this context, essentially involving damages mitigation. The 'highest price' standard applied earlier, by contrast, is designed to allow plaintiff some recoupment of lost opportunity."\textsuperscript{136} The pertinent time periods were found to be one month and two months, respectively.\textsuperscript{137}

Referencing the average price over a reasonably short period of time is useful for providing a more appropriate estimate of value. An average price over a period of time is less volatile than the price for a particular day. For similar reasons, securities requiring conversion price adjustments based on market prices will frequently reference a "trailing average," i.e., an average price over a short period, as opposed to the price on a single day.\textsuperscript{138} There is also a risk that, when a particular day is referenced, the issuer might manipulate the price on the date in question,\textsuperscript{139} or select, by the timing of its breach of the registration rights, an atypical period for the measurement.

The rationale for referencing a "highest" price merits some explication. There are a few competing concerns. In one view, it is assumed the plaintiff would have sold on or about a particular day; however, there is uncertainty as to the precise date and time. Providing an extreme price over the period is in the nature of a rounding error, construing against the party responsible for uncertainty in damage any risk of misspecification in the damage computation.\textsuperscript{140}

\begin{itemize}
\item \textsuperscript{135} \textit{Id.} at 610.
\item \textsuperscript{136} \textit{Id.} at 610 n.3.
\item \textsuperscript{137} \textit{See id} at 610.
\item \textsuperscript{138} This choice, however, is not without hazards. \textit{See}, \textit{e.g.}, Harcourt Brace Jovanovich, Inc. v. Sun Bank, No. CI 87-3985 (Fla. Cir. Ct. Orange County June 25, 1987) (addressing adjustments producing an erroneous negative conversion price).
\item \textsuperscript{139} \textit{Cf.} GFL Advantage Fund, Ltd. v. Colkitt, 272 F.3d 189, 195–96, 209 (3d Cir. 2001) (addressing an issuer of a note convertible based on market price and allegations the holder engaged in short sales to manipulate the conversion ratio), \textit{cert. denied}, 536 U.S. 923 (2002); Nanopierce Techs., Inc. v. Southridge Capital Mgmt. LLC, No. 02 Civ. 0767 LBS, 2002 U.S. Dist. LEXIS 24049 (S.D.N.Y. Oct. 10, 2002) (addressing allegations lender sold short the plaintiff's securities as part of depressing the price for purposes of increasing shares issuable under reset rights).
\item \textsuperscript{140} \textit{Madison Fund}, 427 F. Supp. at 608 ("[T]his Court concludes, fundamental justice requires that, as between Charter and Madison, the perils of such uncertainty should be 'laid at the defendant's door.' Were it otherwise, Madison would be required to prove a disposition to take the 'very steps' that defendant's 'wrongful act . . . precluded [it] from taking . . . ." (alteration in original) (citation omitted) (quoting Kaufman v. Diversified Indus.,
\end{itemize}
An alternative rationale is that using the highest price over a time period provides some compensation for the loss of the ability to trade over the entire period when registration was suspended. *Madison Fund* describes the computation as providing "rough justice."\(^{141}\) This rationale is unpersuasive where, as demonstrated in Part V, smoother justice can be provided.

The intended purpose for opting to use a range of time, as opposed to a single date, has material consequences in the proper choice of the time period. Where a price extreme over a period is used, the time period is quite important. An incorrect specification can substantially change the outcome. Where an average is used, however, accuracy in selecting a precise time period is less important. The process of taking an average smoothes out deviations in the price ultimately computed.

*Madison Fund* also addresses the consequences of the issuer reinstating the registration.\(^{142}\) Regardless of the approach used to determine the value of the securities, when registration is merely delayed, a court has to determine an amount, if any, to be deducted from that value.\(^{143}\) An unbiased damage measure would fix damages as of some time, allocating to the promisee the risk of future market losses, as well as the benefit of future market gains. In that case, the promisee’s subsequent transactions in the

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Inc., 460 F.2d 1331, 1338 n.8 (2d Cir. 1972)); cf., e.g., McKinley v. Williams, 74 F. 94, 103 (8th Cir. 1896) (noting that an exception to the general rule has been created to prevent injustice and "to throw the chance of this loss upon him who inflicts, rather than upon him who suffers, the wrong"); Vos v. Child, Hulswit & Co., 137 N.W. 209, 210 (Mich. 1912) (quoting McKinley, 74 F. 94, 102-03); Armory v. Delamirie, 93 Eng. Rep. 664, 664 (K.B. 1722) (stating, in connection with trover for a jewel, "[U]nless the defendant did produce the jewel... [the jury] should presume the strongest against him"). The pertinent time period may be couched by a court in terms of specifying a time period by the end of which the plaintiff is required to have mitigated damages.

The effect of the duty to mitigate is simply to limit the time period during which the trader may reenter the market at the broker’s expense. Failure to reenter within the reasonable time period is deemed to be a decision to stay out; recovery is nevertheless allowed, for the reasons previously stated, based on the difference between the liquidation price and the highest price reached in the market during the period allowed for reentry.


141. *Madison Fund*, 427 F. Supp. at 609; cf. MCCORMICK, supra note 60, § 48, at 188–89 (describing the use of the highest intermediate value, labeled "highest replacement value," in breach of contract or conversion as "a compromise attempt to value the chance").

142. See *Madison Fund*, 427 F. Supp at 610.

143. Id.
securities, and any failure to engage in transactions in the securities, are considered independent investment decisions, and, hence would not affect the damages recoverable.\footnote{144} Similarly, subsequent market fluctuations are not relevant. That is consistent with the normal rule in breach of contract, where post-breach market movements do not affect damages.\footnote{145}

In Madison Fund, the plaintiff delayed selling the shares, incurring additional losses as a result of a market decline after registration was effected.\footnote{146} That circumstance is similar to a traditional question of mitigation. The plaintiff could have avoided the damage, by selling the shares earlier, so it bears the risk. Consistent with general principles, Madison Fund could not recover that additional loss.

An additional issue the court considered was whether prejudgment interest should be given.\footnote{147} Prejudgment interest sometimes may be viewed as a technical detail,\footnote{148} one a theoretical assessment of remedies may elide. It is, however, helpful to note how the court addressed prejudgment interest in this context. Part V suggests that when prejudgment interest is awarded, a proper damage computation would contain an interest component—although one based on a principal amount different from the principal amount used in computing prejudgment interest.

The Madison Fund court denied all prejudgment interest.\footnote{149} The court’s rationale was that damages are not “readily liqui-

\footnote{144} See, e.g., Schultz v. Commodity Futures Trading Comm’n, 716 F.2d 136, 140 (2d Cir. 1983) (supporting the conclusion the plaintiff need not have re-entered the market in order to recover damages for unauthorized trading based on market prices); Letson, 532 F. Supp. at 503 (noting that there is no obligation to replace securities wrongfully liquidated in an account in order to assert a damage claim).

\footnote{145} See infra note 211.

\footnote{146} Madison Fund, 427 F. Supp. at 610.

\footnote{147} Id.

\footnote{148} The principal published theoretical analyses in the recent scholarly legal literature concerning prejudgment interest are the following: Michael S. Knoll, A Primer on Prejudgment Interest, 75 Tex. L. Rev. 293 (1996); and John C. Keir & Robin C. Keir, 

\footnote{149} Id.

\footnote{149} The principal published theoretical analyses in the recent scholarly legal literature concerning prejudgment interest are the following: Michael S. Knoll, A Primer on Prejudgment Interest, 75 Tex. L. Rev. 293 (1996); and John C. Keir & Robin C. Keir, Opportunity Cost: A Measure of Prejudgment Interest, 39 Bus. Law. 129 (1983). A collection of other authority, as well as additional theoretical analysis, is provided in Royce de R. Barondes, Rejecting the Marie Antoinette Paradigm of Prejudgment Interest, 43 Brandeis L.J. (forthcoming). Based on the frequency with which computation of prejudgment interest arises, this modest number of theoretical analyses in the recent scholarly legal literature supports the notion that computation of prejudgment interest may be viewed in some quarters as a mere technical detail.

\footnote{149} Madison Fund, 427 F. Supp. at 610.
dated and ascertained... by simple computation,” because “the amount recoverable by [the] plaintiff has surely been beyond the parties’ safe prediction or the Court’s ready determination.”

The final issue in Madison Fund involved a dividend. The court’s cavalier treatment of the issue manifests exasperation. The court recognized the plaintiff was harmed, but foundered for want of an underlying principle from which a compensatory damage measure could be derived—foundering that can be eliminated by identification of the underlying principle developed in Part V below.

Charter had a December 20, 1971, record date for dividends. The highest price for Charter’s stock in the month following December 3, 1971, used in computing damages, was on December 31. Had Madison Fund sold the stock on December 31, Madison Fund would have also received the dividend having a December 20 record date. The court declined to award Madison Fund that dividend, stating, “[A]t the risk of further seeming inconsistency, this Court declines to stretch the fiction to that extent[,] an extension unjustified by the aforementioned purpose of compensation for lost opportunity.”

C. Recent Developments and Asymmetric Damage Measures

Duncan v. TheraTx, Inc. involved a post-breach context that was the converse of that in Madison Fund. In Duncan, the market price of the security rose following reinstatement of registration, and it was the defendant who sought to have damages reference a later valuation date. The opinion is particularly interesting because the court was guided by a relatively modern

150. Id. (alteration in original) (quoting Sullivan v. McMillan, 19 So. 340, 343 (Fla. 1896)).
151. Id. at 611.
152. See id.
153. Id.
154. Id.
155. Id.
156. Id.
157. 775 A.2d 1019 (Del. 2001).
158. See id. at 1020–21.
159. Id. at 1021.
theory of setting "default rules" in construing contractual obligations.\footnote{160}

TheraTx issued restricted shares to shareholders of a firm it acquired in 1994.\footnote{161} TheraTx agreed that upon a subsequent IPO, it would register the resale of those shares and keep the registration effective for two years.\footnote{162} An IPO was consummated, and TheraTx filed a registration statement for the resale of the subject shares, which became effective in December 1994.\footnote{163} One month later, TheraTx made a material acquisition.\footnote{164} The material acquisition rendered the then-existing disclosure inaccurate in its prospectus on file with the SEC.\footnote{165} Because the sale of a registered security by means of a misleading prospectus is unlawful under section 12 of the 1933 Act,\footnote{166} TheraTx could not allow the covered securities to be sold publicly at that time.\footnote{167} Acting on the advice of the SEC, TheraTx suspended the registration statement's effectiveness and imposed trading restrictions on the formerly registered shares.\footnote{168} The suspension ended five months later.\footnote{169} At the time of the suspension, the stock traded at a range of $18.25 to $18.75.\footnote{170} During the suspension, the price of TheraTx reached a high of $23.125 and fell to $13.375 at the end of the suspension.\footnote{171} The trial court found that, "Prior to the suspension period, each of the [shareholders] intended to sell his

\begin{itemize}
  \item \footnote{161} Duncan, 775 A.2d at 1020–21.
  \item \footnote{162} Id. at 1021.
  \item \footnote{163} Id.
  \item \footnote{164} Id.
  \item \footnote{165} Id.
  \item \footnote{166} 15 U.S.C. § 77l(a)(2) (2000). Where the acquisition constitutes a "fundamental change," the issuer may also be required to amend its registration statement. CHARLES J. JOHNSON, JR. & JOSEPH MCLAUGHLIN, CORPORATE FINANCE AND THE SECURITIES LAWS 506 (2d ed. 1997).
  \item \footnote{167} Duncan, 775 A.2d at 1021.
  \item \footnote{168} Id.
  \item \footnote{169} Id.
  \item \footnote{170} Appellants' Opening Brief at 8, Duncan v. TheraTx, Inc., 775 A.2d 1019 (Del. 2001) (No. 575, 2000).
  \item \footnote{171} Duncan, 775 A.2d at 1021.
\end{itemize}
TheraTx stock, though the time that such sale would have occurred is unknown.\(^\text{172}\)

The trial court found the suspension of the registration constituted a breach of contract, which was affirmed on appeal to the United States Court of Appeals for the Eleventh Circuit.\(^\text{173}\) The trial court stated damages were to be computed as follows:

[A] plaintiff deprived of his ability to sell stock is entitled to receive the highest intermediate value that the stock reached during a reasonable period of time after trading was restricted. In this case, the reasonable period of time that it would have taken the [shareholders] to dispose of their TheraTx stock without adversely affecting the stock price is ten (10) calendar days . . . .

Subtracted from the highest intermediate value . . . is actual sale price of the stock.\(^\text{174}\)

The trial court further awarded prejudgment interest at 10.99\% (five percentage points over the Federal Reserve discount rate when the suspension commenced)\(^\text{175}\) on that amount from the date used to value the shares.\(^\text{176}\)

The stock price rose from the end of the trading suspension until the time the shareholders sold the stock.\(^\text{177}\) The trial court's reference to the actual sale price, as opposed to the price when the suspension was lifted, therefore caused the damages to be less than they would have been had the shareholders sold immediately upon the reinstatement of the registration.

On appeal, the question of damage computation was certified to the Supreme Court of Delaware.\(^\text{178}\) The issuer sought to distinguish Madison Fund from those cases, such as the one at bar, where the security price increased following reinstatement of registration and the securityholders benefited from that increase by not selling the securities immediately following the reinstatement.


\(^{173}\) See Duncan, 775 A.2d at 1021.

\(^{174}\) Duncan, No. 1:95-CV-3193-RWS, slip op. at 4–5 (citation omitted).

\(^{175}\) Id. at 4, 7.

\(^{176}\) Id. at 7.

\(^{177}\) Duncan, 775 A.2d at 1026 (noting the issuer contended “it should . . . receive a credit for the subsequent appreciation in the share price”).

\(^{178}\) TheraTx, Inc. v. Duncan, 234 F.3d 1240 (11th Cir. 2000), certifying question to 775 A.2d 1019 (Del. 2000).
of registration. The Supreme Court of Delaware was not persuaded and formulated a damage measure generally consistent with the measure developed in *Madison Fund*, holding:

Under Delaware law, contract damages caused by the temporary suspension of a shelf registration in violation of the terms of a contract are measured by calculating the difference between (1) the highest intermediate price of the shares during a reasonable time at the beginning of the restricted period and (2) the average market price of the shares during a reasonable period after the restrictions were lifted.

The court also persuasively categorized the securityholders' decision to continue to hold the securities following reinstatement of registration as an independent investment decision, for which risk of both loss or gain should be allocated to the securityholder who made the decision. Otherwise, the securityholders would

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179. The issuer framed its argument in *Duncan* as follows:

[W]hen the holder of the securities is again free to sell, the defendant is not the cause of any constraint on sale and has no control over the plaintiff's actions within the market, and, therefore, the defendant should not be made to suffer if the plaintiff rides the market down. This is the essence of the mitigation principle—the defendant is entitled to the benefit of mitigation that would have occurred if, within a reasonable time of breach, the plaintiff had taken reasonable steps available to him to lessen his damages. . . . But, this mitigation principle has never been applied, as far as TheraTx knows, to permit the party suffering the breach of contract to receive damages greater than the actual harm suffered.


180. *See* *Madison Fund, Inc. v. Charter Co.*, 427 F. Supp. 597, 609–10 (S.D.N.Y. 1977) (holding that a reasonable computation of damages, under Florida law, for breach of a registration obligation can be equal to the highest bid price within one month of when registration should have been accomplished minus the average price over the two months following registration). One generally insignificant difference in *Madison Fund* is the explicit reference to a "bid" price. *See supra* notes 135–41 and accompanying text.

181. *Duncan*, 775 A.2d at 1029.

182. *Id.* at 1024–25. The court's discussion of this point concisely states the principle and its context:

The *Madison Fund* Court's theory supposes that stockholders who elect not to sell their shares (a) fix the amount of damages by (constructively) selling their shares soon after the restrictions are lifted and (b) (constructively) re-purchase the shares as an independent, speculative investment. This rule assigns the risk associated with uncertainty in the share price after the restricted period solely to the stockholders who decide to retain their shares.

*Id.* at 1024–25 & n.17 ("This constructive immediate sale theory is similar to the 'new investment' rule developed in securities fraud cases. Under the 'new investment' rule, a defrauded stockholder may elect to retain the shares purchased as a result of the fraud, but the courts view this election as an independent investment decision that does not affect the defendant's liability for the fraud. *See Nye v. Blyth Eastman Dillon & Co.*, Inc., 8th
have very limited incentives to continue holding the securities following reinstatement of registration.\(^{183}\)

The court presents a second rationale, which it does not persuasively develop. This second, erroneously-formulated rationale might be considered peripheral, except for the fact that this same rationale, where properly applied, is pertinent to identifying an appropriate damage measure. Although seeking to determine the majoritarian principle of damages now a familiar part of law and economics scholarship,\(^ {184}\) the court erroneously applied the principle, indicating that the issuer's proposed damage measure would result in an "uncompensated transfer from the stockholders to the issuer."\(^ {185}\) As between sophisticated parties, the contours of the damages available would be reflected in the original consideration.\(^ {186}\) Inferior damages in breach would cause securityholders to pay less. It is well known that parties may allocate risk to one party, i.e., asymmetrically, where the burdened party is better able to diversify or otherwise bear the risk.\(^ {187}\) Where a

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\(^{183}\) See, e.g., Ayres & Gertner, supra note 160, at 105 n.79 (1989) (stating, in developing the principle of "penalty defaults," a consumer-purchaser aware that a breach would result in potential liability to the seller for the seller's lost profits would demand a lower price). There would, of course, be a symmetric, corresponding change were supracompensatory damages provided.

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risk can be more easily assessed (evaluated ex ante)\textsuperscript{188} or controlled\textsuperscript{189} by a party, parties who expressly bargain about the issue are more likely to allocate costs of the event in an asymmetric way.

Proper application of the majoritarian default principles, however, could well reach the same outcome. The issuer is more likely to have greater information concerning the likelihood of breach and future securities prices (pertinent to assessing the damage) and to be able to control the breach. The issuer’s proposed damage is not inadequate because it would involve an “uncompensated” transfer. Rather, it is suspect because it would allocate to a securityholder a risk of post-reinstatement increase in security price, although the issuer is better able to assess that risk.

D. Summary

For purposes of the analysis developed below, it is helpful to restate the damage measure formulated in Madison Fund and Duncan in an algebraically equivalent way. Consider the value that a person could derive from making one complete trade of a security over a period of time. The most one could make, excluding interest, would be the difference between the high and the low price. One might call that a perfect coupled trade, meaning the best single trade one could make (allowing the matching of a sale occurring before the purchase). If the trading prices are generally symmetric, so that the high and the low are the same distance from the average, the value to be realized from purchasing at the average and perfectly timing the sale would be half the value from a perfect coupled trade. One might call this trade a partially perfect coupled trade.

The damage measure provided in Madison Fund and Duncan can be restated as the sum of two components, consisting of the price decrease over the period of time when registration was restricted—measuring prices at the beginning and the end of the

\textsuperscript{188} Cf. id. at 90–91 (recommending, as an aid in contract interpretation, consideration of which party is a cheaper “insurer,” meaning risk-bearer, by virtue of having lower “risk-appraisal” costs).

\textsuperscript{189} Cf. id. at 90 (explaining that a party may be a superior risk bearer because he may be able to prevent the risk from ever arising).
time period specified based on averages of prices around each of
the two end points of the corresponding time period—plus the
value of a single partially perfect coupled trade.

A numerical example may be useful in illustrating the point.
Assume that a company wrongfully suspends registration on
January 1. Over a "reasonable" period following January 1, the
average securities price is $10 per share and the high is $11 per
share and the low is $9 per share. Registration is reinstated on
February 1. The average price over a reasonable period of time
following February 1 is $7 per share. The formula, as stated in
*Duncan and Madison Fund*, is damages per share equal the high
price in the January period, $11, minus the average price in the
February period, $7, or $4 per share. The preceding paragraph
states the same formula in a different way: The damages per
share equal $4, computed as follows: (i) the difference in the two
average prices, $10 minus $7, or $3, plus (ii) $11 minus $10, or
$1, the value of a partially perfect coupled trade.190

Merely effecting this rudimentary algebra is not, on its own,
 instructive. In the illustration, they both produce damages of $4
per share. They will always produce the same number. The in-
sight is that by rephrasing the damages definition in this way, it
is easier to compare this damage measure to a proper way to as-
sess compensatory damages—developed in Part V. To understand
why this reformulation is useful, it is helpful to preview the an-
swer developed in Part V. The "correct" answer—what the dam-
age measure should be—replaces the second component in the re-
formation of the *Duncan and Madison Fund* damage measure,
the value of a partially perfect coupled trade, with an amount
based on the promisee's "cost of funds." "Cost of funds" here refer-
ces the value of the securities at the time registration was sus-
 pended ($10 in the example), multiplied by the interest rate at
which the promisee pays its creditors, multiplied by the period of
the suspension (one month in the example). Responsive to the in-
tuitive criticism of *Duncan and Madison Fund* noted above,191
this computation of damages, unlike that used in *Duncan and

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190. To put the analysis in more algebraic terms: *Madison Fund* and *Duncan* provide a
damage measure of: \( \text{Highest Value over Period 1} - \text{Average Value over Period 2} \). The re-
formulated definition in this Article notes that \( \text{Highest Value over Period 1} = \text{Average
Value over Period 1} + (\text{Highest Value over Period 1} - \text{Average Value over Period 1}) \).

191. See supra text accompanying note 48.
Madison Fund, is a direct function of the time period over which the registration is suspended.

IV. FACTORS IN ASSESSING POTENTIAL DAMAGE MEASURES

Part III describes the damage measures courts have developed for valuing inchoate liquidity restrictions. The remainder of this Article discusses proper damage measures for use in that context, including one proposed by Barry Adler and an alternative damage measure. Part IV.A illustrates why the damage measure in current authority is inadequate. Part IV then details factors pertinent in assessing alternative damage measures. Part IV.B addresses the distinctions between ex ante and ex post damage measures, noting the familiar preference for an ex ante damage measure based on the impact of the damage measure on the incentives for having efficient breach. Application of these principles to the context of breach of registration rights is somewhat unusual. Breach of registration rights typically does not last indefinitely. That presents an issue: What is the date as of which one categorizes a remedy as "ex post" or "ex ante"? Is a damage measure computed as of the last moment of breach (the time as of which registration is reinstated) "ex ante"? Part IV explores this issue.

A facile approach would be a damage measure as of the time registration rights are reinstated is necessarily "ex ante," and therefore adequate, because it is measured as of the last moment of breach—it is not measured subsequent to the end of breach. Part IV rejects that simplistic approach to taxonomy and instead references the underlying reasons why ex ante damage measures are preferable. Part IV then examines the tradeoff between selecting a damage measure that creates perfect incentives for efficient breach and selecting one that allows parties to vindicate the essential purposes of their primary contractual obligations. Following that discussion, Part V develops and compares alternative damage computations for breach of registration rights imposing inchoate liquidity restrictions.
A. Inadequacy of the Customary Damage Measure

Firms value liquidity for purposes of meeting cash flow demands, whether expected or unanticipated. It is difficult to conceive of a damage measure adequate to compensate for loss of liquidity that is not a direct function of the time period over which liquidity is denied. The damage measure provided in Duncan is "the difference between (1) the highest intermediate price of the shares during a reasonable time at the beginning of the restricted period and (2) the average market price of the shares during a reasonable period after the restrictions were lifted." This damage measure, which is similar to that articulated in Madison Fund, does not contain a component based on the length of time the registration was postponed. In other words, the damage measure is the same, whether the liquidity restriction lasts a week or a month. The length of time the registration was postponed is not an element of the formula. That omission is curious.

The inadequacy of the damage measure can be identified with a simple example. Assume the security in question is a bond, it is riskless, and the riskless rate of interest is zero throughout the time when registration is suspended. This rule will provide no damage. That is the case even though the securityholder has been deprived of its ability to sell the security and use the proceeds in its business.

In addition, one would expect the value of liquidity to vary depending on the identity of the promisee. Additional liquidity is of more value to one on the brink of insolvency than to a firm with large cash reserves. That the damage measure does not reflect characteristics of the promisee is also a cause for potential concern.

One might argue that the investor can still seek consequential damages where registration rights covering a riskless, floating-rate security are breached. The argument would conclude that

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194. There is, of course, an indirect relationship between the length of the suspension and the price fluctuation.
195. Another example is provided supra note 45 and accompanying text.
196. The riskless rate of return being zero does not mean everyone ascribes a value of zero to liquidity. Market transactions having risk can have a positive expected value. The damage rule produces damages of zero, although the promisee may have been injured.
the damage measure Duncan articulates is not deficient. But that misses the point.

The promisee has bargained for a set of rights, one of which is liquidity. That is part of what the promisee paid for; restricted securities sell for less than unrestricted securities.\textsuperscript{197} The example provides an illustration where the Duncan damage measure provides no compensation for that loss of liquidity.

The Duncan court is seeking to provide a damage measure that fully compensates a promisee where it cannot be proved what the securityholder would have done absent breach. It seeks a damage measure in which securityholders are “compensated for the loss of a range of options and not for the loss of an actual sale of the shares,”\textsuperscript{198} guided by the notion that the court should provide a default damage measure that is not asymmetric (a measure that is not a “one-way” option,”\textsuperscript{199} in the court’s language). That is because the court recognizes that parties frequently will not be able to prove what would have been done absent breach,\textsuperscript{200} yet the court nevertheless seeks to formulate a “bright line” remedy. The damage measure the court creates, however, simply fails to provide compensation for a component of the bargained-for promise.

In fact, the court suggests that it is creating a sui generis, exclusive damage measure that will not be varied from, regardless of proof of what the parties would have done absent breach. Three parts of the opinion have language suggesting the court is creating an exclusive remedy. \textit{First}, the court rejected, finding “unpersuasive,” the issuer’s argument that no damages are due where the issuer demonstrates the stockholders would not have sold when the registration rights were suspended.\textsuperscript{201} \textit{Second}, the

\begin{itemize}
\item \textsuperscript{197} \textit{See supra} notes 88–97 and accompanying text.
\item \textsuperscript{198} \textit{Duncan}, 775 A.2d at 1025 n.18.
\item \textsuperscript{199} \textit{Id.} at 1027.
\item \textsuperscript{200} \textit{See id.} at 1023 n.8.
\item \textsuperscript{201} \textit{See id.} at 1022 n.7. The language, in full, is:
\begin{quote}
We find unpersuasive the TheraTx argument that the injury in this case is the loss of a particular sale and that, under Delaware law, “had it been proven at trial that the members of the Duncan Group intended to hold the TheraTx stock for a long term investment... they would have suffered no deprivation during the suspension, and would not be entitled to damages at all.” In any event, the District Court found that the Duncan Group did intend to sell its shares during the restricted period.
\end{quote}
\end{itemize}
\textit{Id.} (alteration in original). Although the opinion is not a model of clarity on this point, the last sentence clarifies that what the court found “unpersuasive” was (x) the assertion
The court's adoption of the Madison Fund rationale similarly suggests that, at least in a wide range of cases where a securityholder has only modest evidence of a transaction the securityholder would have undertaken, absent breach, that would have realized a greater profit than that afforded by the court's damage rule, the court simply will not entertain a request for additional, consequential damages.\textsuperscript{202} \textit{Third}, in concluding, the court notes that it is providing a "bright line" rule that "achieves more certainty than the alternatives."\textsuperscript{203} The court indicates that a bright line rule is desirable so that parties can assess whether it is efficient to breach.\textsuperscript{204} That only makes sense if the bright line is not subject to blurring by consequential damages associated with a specific transaction a securityholder in litigation seeks to prove would have occurred absent breach. Consequential lost profits damages, however, frequently will not be easily assessed when a decision to breach is made.\textsuperscript{205}

The principal purpose of this discussion is not to assess how the Delaware Supreme Court will treat circumstances where it is clear what the promise would have done absent breach. It may be that it will subsequently "clarify" the Duncan opinion, to provide that, where there is adequate proof of what the plaintiff would have done, demonstrating injury either greater than or less than that which would be provided by a "bright line" rule, damages will not be based on the "bright line" rule.\textsuperscript{206} If the rule is refined there should be no damages where there was adequate proof the plaintiffs would not have sold, not (y) the issuer's proof that the securityholders would not have sold.

\textsuperscript{202} See id. at 1023 n.8, 1024 n.12 (noting difficulty in proving a hypothetical transaction).

\textsuperscript{203} Id. at 1029.

\textsuperscript{204} Id. at 1028–29.

\textsuperscript{205} Uncertainty in this assessment is evidenced by the amount of authority on the subject. See generally, e.g., George P. Roach, \textit{Correcting Uncertain Prophecies: An Analysis of Business Consequential Damages}, 22 \textit{REV. LITIG.} 1 (2003) (collecting and analyzing authority).

\textsuperscript{206} See generally Phansalkar v. Andersen Weinroth & Co., No. 00 Civ. 7872 (SAS), 2002 U.S. Dist. LEXIS 11764 (S.D.N.Y. June 26, 2002) (employer's remedy for employee's wrongful failure to deliver securities to employer limited to delivery of shares where, over the pertinent time period, the employer itself made no effort to sell any of the securities of that issuer that it held), rev'd in part, 344 F.3d 184, 211 (2d Cir. 2003) (affirming the trial court's disposition as to this particular issue).

Of course, a claim for consequential damages would be subject to the normal requirement that the additional costs were foreseeable. See, e.g., \textit{RESTATEMENT (SECOND) OF CONTRACTS} § 351 (1981); Douglas Laycock, \textit{The Remedies Issue: Compensatory Damages, Specific Performance, Punitive Damages, Supersedeas Bonds, and Abstention}, 9 \textit{REV. LITIG.} 473, 476–79 (1990) (assessing in foreseeability terms the damages in the (in)famous
in that way, that will raise the issue of whether the promisee's remedy is limited by the cost of transactions that could have been taken in mitigation. One possible set of transactions, in fact, is that which gives rise to the damage measure developed in this Article.

This discussion similarly is not here focused on the relative merits of a "bright line" damage measure that cannot be blurred by evidence concerning a hypothetical sale of a security. Rather, the point is the Duncan court's damage measure fails to provide compensation for a component of the option it is seeking to value. The damage measure developed below, on the other hand, remedies that deficiency, providing a method of assessing compensation for the loss of liquidity that does not depend on proof of what the promisee would have done.

B. Traditional Rationale for Ex Ante Damage Measures

1. Preference for Ex Ante Damage Measures

In general, it is preferable to measure damages for breach of contract at the time of breach.207 This is part of the general concept that damages for breach of contract should be measured ex ante. In many cases, allowing an ex post damage computation will overcompensate promisees and, therefore, inhibit efficient breach. The reason is familiar and straightforward.208 Consider a plaintiff having a claim with a value at the time of breach equal to $X + \delta X$, where $X$ represents the value at the time of breach, a

Texaco-Pennzoil litigation, Texaco, Inc. v. Pennzoil Co., 729 S.W.2d 768 (Tex. App. 1987), for interference with a contract to acquire stock of Getty Oil; concluding the damages could be properly framed as based on the cost of acquiring proved oil reserves, as opposed to the lower cost of the difference in the contract/market price differential for the stock of Getty that Pennzoil had agreed to acquire).


208. See generally Goetz & Scott, supra note 160, at 994 (noting common law rule allowing buyer to value breach as of time of delivery, as opposed to earlier repudiation, is inefficient by not requiring buyer to internalize cost of post-repudiation price increases); Thomas H. Jackson, "Anticipatory Repudiation" and the Temporal Element of Contract Law: An Economic Inquiry into Contract Damages in Cases of Prospective Nonperformance, 31 STAN. L. REV. 69, 89–90 (1978).
positive number, and \( \delta X \) represents the change in value from the
time of breach to some later time as of which damages are mea-sured. Even if the expected value of \( \delta X \) is zero, the plaintiff, if
forced to choose at the time of breach, frequently would have a
greater expected return selecting damages of \( X + \delta X \), measured at
a subsequent date (particularly one measured at or before the
date the lawsuit is commenced). That is because the plaintiff’s
damages will be truncated at zero. If the damage measure pro-
duces a negative remedy (“negative” damages), the plaintiff will
simply not bring suit. Thus, the expected value of a remedy of \( X + \delta X \) is greater than \( X \).

Traditional remedies doctrine is not inconsistent. Courts gen-
erally measure damages for breach of contract as of the time of
breach. However, an ex post damage measure may have advan-

209. However, a risk-averse plaintiff might not choose that option.

210. For completeness, one might wish to identify expressly the possibility that the
damage claim \( X \) may have a negative expected value. One might, perhaps, assert a pro-
misee in such a case should be forced to pay the promisor in breach, to assure proper in-
centives to breach. That would not be a typical outcome. See, e.g., U.C.C. § 2-706(6), 1B
U.L.A. 249 (master ed. 1989) (stating that seller not accountable to a buyer in breach for
profit on resale).

LEXIS 2251, at *21–22 (6th Cir. Aug. 2, 1995) (identifying the customary rule, but distin-
guishing breach of contract for the sale of securities); Sharma, 916 P.2d at 825 (“It is a
fundamental proposition of contract law, including that of New York, that the loss caused
by a breach is determined as of the time of breach.”); Wilkens v. Kaufman, 615 So. 2d 613,
P.2d 25, 26–27 (Colo. Ct. App. 1989) (finding damages for breach of contract resulting in
promisee being unable to consummate sale of property in consideration of discharge of in-
debtedness not decreased by subsequent bankruptcy of promisee); Rametta v. Stella, 572
A.2d 978, 983 (Conn. 1990) (finding for recovery of plaintiff in an action alleging breach of
contract for failure to insure property not diminished by extent to which plaintiff renego-
tiated a contract to sell the property for better terms after the casualty to the property);
arising from zoning ordinance violation measured as of time of sale, notwithstanding sub-
sequent grandfathering of the noncompliance); Jones v. Lee, 971 P.2d 858, 862–63 (N.M.
Ct. App. 1998) (ruling sale of residential real estate three months after breach of contract
to sell at an eleven percent discount from the contract price merely evidence of value at
the time of breach); Aroneck v. Atkin, 456 N.Y.S.2d 558, 559 (N.Y. App. Div. 1982) (actual
business performance subsequent to breach of contract for sale of its securities not rele-
vant to damage valuation); Chris v. Epstein, 440 S.E.2d 581, 583 (N.C. Ct. App. 1994) (af-
firming exclusion of evidence of sales price for residential real estate one year after the
*8–9 (10th Cir. May 11, 1995) (stating damages to be valued at the time of breach, but as-
serting defendant conceded “consequential damages for the subsequent increase in [the
issuer’s] value would have been appropriate if foreseeable”); Comrie v. Enterasys Net-
works, Inc., 837 A.2d 1, 19 (Del. Ch. 2003) (referencing the timing of post-breach firing of
employees in computing damages owed the employees for an employer’s breach of an obli-
gation to deliver in-the-money stock options having a vesting schedule dependent on con-
tages. In some contexts, e.g., in the case of a promise having a random payoff, an ex post damage measure may be more easily computed. In such a case, a court seeking to implement majoritarian default norms might select an ex post damage measure.

2. Pertinent Meaning of Ex Ante

A breach of registration rights typically lasts for a bounded period of time. After some point in time, either the registration rights are reinstated or the securities otherwise become subject to being freely resold. There are three approaches a court might take to valuing breach of registration rights imposing inchoate liquidity restrictions: (i) valuing the damages as of the time of initial breach; (ii) valuing the damages as of the time registration is reinstated; and (iii) valuing the damages as of some intermediate time.

Another principle can cause valuation as of the time of breach to increase the promisee's damages. If A materially fails to perform a contract, A may seek to reduce damages it owes by claiming there is some probability B would not have performed subsequently. Some authority holds where B is not in breach at the time A breaches, that defense would fail. See, e.g., Am. List Corp. v. U.S. News & World Report, 549 N.E.2d 1161, 1162–63, 1165 (N.Y. 1989) (finding damages arising from a publisher's repudiation of an agreement to rent a list of college students for a ten-year term, comprising the present value of the lessor's future income stream, should not be decreased by the probability the lessor would have breached in the future); Roye Realty & Developing, Inc. v. Arkla, Inc., 863 P.2d 1150, 1159 (Okla. 1993) (holding damages arising from a buyer's repudiation under a “take-or-pay” contract for gas are not diminished by the likelihood the seller would have been unable to perform, where the seller could perform at the time of repudiation).

212. See infra notes 219–20 and accompanying text (providing illustrations).

213. The securities typically will become subject to resale because the passage of time would make it impossible to characterize the holder as either one who acquired the securities with a view to their distribution or one who was otherwise participating in the issuer's distribution of the securities. See 17 C.F.R. § 230.144(k) (2004) (lifting volume limits on sales under the rule by non-affiliates after two years). Where the securityholder is a control person, however, the period could be indefinite. The passage of time, by itself, would not allow the control person to resell the securities free of compliance with the volume limits. Id. § 230.144(e) (2004).

214. See, e.g., infra Part V.A.1.

215. See, e.g., infra Part V.A.3.
It is helpful to distinguish taxonomy from analysis. None of these three times occurs after breach has been cured. So each is, from a simplistic standpoint, capable of being categorized as ex ante. But that is not the sole inquiry. A pertinent inquiry is whether a damage measure is capable of producing “negative” damages and therefore capable of suppressing efficient breach. One of the damage measures developed below, which measures damages as of the time registration is reinstated, is capable of producing “negative” damages.\textsuperscript{216} It therefore suffers from a disadvantage of a traditional ex post damage measure. Whether one would otherwise categorize the damage measure as being ex ante is not the pertinent inquiry.

3. Conflict Between Ex Ante Remedy and Inhibition of the Contract’s Essential Purpose

Benefits in creating desirable incentives for breach must be weighed against any possible loss in an ability of the parties to vindicate the risk allocation bargained-for by contract. Assuring there will be efficient breach is not the principal reason why parties enter into contracts. Rather, they enter into contracts for purposes of assuring the risk allocation in the contract will be respected or, if not, the promisee will be compensated. Although one of the damage measures developed below can result in “negative” damages—and may therefore inhibit efficient breach—that characterization should not necessarily disqualify use of the damage measure.

There is a parallel in the law governing repudiation. In general, a promisor by repudiating can fix the time as of which damages are measured.\textsuperscript{217} This treatment promotes efficient breach.

\textsuperscript{216} See example 2 infra text accompanying note 284 and discussion of synthetic registration rights infra Part V.A.

\textsuperscript{217} Farnsworth states:

Though there is some authority that the injured party may choose to ignore a repudiation and await breach by nonperformance, the better view holds that one is expected to act within a reasonable time after the repudiation and that if one delays one bears the risk of any adverse change in the market during the period of the delay.

3 FARNSWORTH, supra note 36, § 12.12, at 233–34 (footnotes omitted); see also Goetz & Scott, supra note 160, at 993 (“Upon anticipatory repudiation, the common law permits an obligee either to seek damages at the time of repudiation or to wait until time for performance and recover damages based upon the market differential at that later date.”). Com-
Were damages valued subsequently, the promisee, in deciding whether to breach, would have to assess not the promisee's current cost of cover but its cost of cover at a future time. It is more difficult to value cost of cover at a future time. Referencing that cost would discourage efficient breach.

However, that concern for efficient breach is not necessarily followed in the case of an option. With an option, the essence of the promised performance is to provide the promisee the ability to fix the time as of which the performance is to be valued. For that reason, one court stated, in rejecting the argument that damages for repudiation of an option should be based as of the time of repudiation, "[t]o recognize [the date of repudiation] as the date of breach as the defendant urges would permit the defendant to select the date of breach and thus rob the plaintiff of the value of his option, which . . . is the right to speculate which it gives the option holder."218 Similarly, other authorities would not allow a promisor to fix the value for breach of a lottery or other contest before the drawing219 or completion of the contest.220 For a similar

\[\text{pare U.C.C. } \S\ 2-708(1), 1B \text{ U.L.A. 265 (master ed. 1989)} ("[T]he measure of damages for non-acceptance or repudiation by the buyer is the difference between the market price at the time and place for tender and the unpaid contract price . . . ."), and id. \S\ 2-713(1), 1B \text{ U.L.A. at 358 ("[T]he measure of damages for non-delivery or repudiation by the seller is the difference between the market price at the time when the buyer learned of the breach and the contract price . . . ."), with U.C.C. } \S\ 2-708(b) \text{ (Proposed Final Draft, Apr. 18, 2003)} ("[T]he measure of damages for repudiation by the buyer is the difference between the contract price and the market price at the place for tender at the expiration of a commercially reasonable time after the seller learned of the repudiation . . . ."), and id. \S\ 2-713(b) \text{ (Proposed Final Draft, Apr. 18, 2003)} ("[T]he measure of damages for repudiation by the seller is the difference between the market price at the expiration of a commercially reasonable time after the buyer learned of the repudiation . . . . and the contract price . . . ."), and id. \S\ 2-713(b), preliminary official cmt. 1 ("This section now provides a rule for anticipatory repudiation cases. This is consistent with the new rule for sellers in Section 2-708(1)(b)."). See generally, e.g., Saevidz v. Epstein, 6 F. Supp. 2d 151, 157 (N.D.N.Y. 1998) (holding doctrine of anticipatory repudiation can be applicable to actions involving option contracts); Space Ctr., Inc. v. 451 Corp., 298 N.W.2d 443, 450 (Minn. 1980) ("An option contract, like other contracts, can be anticipatorily breached by repudiation."); 2 Farnsworth, supra note 36, \S\ 8.20, at 531–32 (discussing application of the doctrine of repudiation to unilateral contracts).]


219. Van Gulik v. Res. Dev. Council, Inc., 695 P.2d 1071 (Alaska 1985), involved a raffle in which the winner of a $10,000 prize was to be the last ticket remaining after multiple drawings. Id. at 1071–72. Two tickets, which appeared to the organizers to be the last two tickets were drawn "seemingly simultaneously." Id. at 1072. The organizers subsequently learned that one more ticket, the plaintiff's, remained not drawn. Id. The court held the plaintiff had the option of either taking $5,000 or participating in a new lottery for the full $10,000, with a fifty percent chance of winning. Id. at 1074.
reason, in choosing among possible damage measures for breach of registration rights, one might avoid reference to a damage measure based on an earlier valuation if it were only a hypothetical damage measure—a damage measure based on hypothetical transactions that the promisee could not, in fact, enter into.

C. Balancing Assuring Benefits of Liquidity and Encouraging Efficient Breach

Registration rights provide liquidity. Parties bargain and pay for liquidity because it is valuable. Breach of registration rights raises special concerns in assuring the original risk allocation is respected. The concerns have two components: breach of registration rights is particularly likely to result in damages that are not foreseeable, and the fungibility of liquidity means breach of registration rights is particularly likely to produce damage that cannot be proved. The remainder of this Part describes those concerns.

220. Hertz v. Montgomery Journal Publ'g. Co., 62 So. 564 (Ala. Ct. App. 1913), involved, essentially, a newspaper's offer to provide prizes to persons who successfully solicited the greatest number of new subscriptions over a stated period of time. Id. at 566. During the contest period, the newspaper wrongfully announced a change in terms, weighting more heavily subscriptions secured during the latter part of the contest period. Id. The court stated a contest participant, at the time the changes were announced had four options, one of which was continuing performance, with damages to be based on whether the participant won the contest under the original terms. Id. at 567. See generally Wright v. St. Mary's Med. Ctr., Inc., 59 F. Supp. 2d 794, 801 (S.D. Ind. 1999) (collecting cases and stating, "Some courts have viewed chances as interests worthy of protection in their own right, while others have rejected the theory.").

221. Borrowers frequently pay "commitment fees," representing fees in order to secure the right to borrow in the future. E.g., Woodbridge Place Apartments v. Wash. Square Capital, Inc., 965 F.2d 1429, 1435 (7th Cir. 1992) ("[W]e cannot deny that standby deposits are standard in the industry and the great majority of courts enforce such provisions under one of several theories."); Forrest Creek Assocs. v. McLean Sav. & Loan Ass'n, 831 F.2d 1238, 1239 (4th Cir. 1987); In re Four Seasons Nursing Ctr. of Am., Inc., 483 F.2d 599, 600 (10th Cir. 1973); Mims v. Fid. Funding, Inc. (In re Auto Int'l Refrigeration), 275 B.R. 789, 803 (Bankr. N.D. Tex. 2002) (addressing an annual facility fee, inter alia); Heidi Pemberton & Thomas C. Lee, Annotated Commentary to US Unsecured Multibank Credit Agreement, in DOING DEALS 2001: UNDERSTANDING THE NUTS AND BOLTS OF TRANSACTIONAL PRACTICE, at 357, 412 (PLI Corp. L. & Prac. ed., 2001), available at WESTLAW, 1228 PLI/Corp. 357 (providing a form with a commitment fee for unused portion of the revolving commitment). See generally Sonja A. Sochnel, Annotation, Enforceability of Provision in Loan Commitment Agreement Authorizing Lender to Charge Standby Fee, Commitment Fee, or Similar Deposit, 93 A.L.R.3d 1156 (1979) (collecting authority construing these provisions).
1. Unusual Damages from Breach of Registration Rights—Remote Contingencies

Acquisition of liquidity represents a precautionary expenditure. Liquidity is acquired in part to deal with remote contingencies.\(^{222}\) A failure to provide bargained-for liquidity therefore may well result in unforeseeable damages that are not compensable. Where liquidity is sought in order to avoid remote costs, a damage measure that computes damages by reference to the foreseeable consequential damages will necessarily under-compensate promisees who seek the liquidity without detailing to promisors the remote contingencies and frustrate contracts designed to avoid losses from remote contingencies.\(^{223}\)

Sometimes the law provides damages by referencing a hypothetical transaction, albeit one that is not really reasonable to expect the promisee to enter into. For example, damages in\(\text{Jacob & Youngs v. Kent}\)\(^{224}\) were based on the hypothetical difference in the value of a house having Reading pipe, specified in the contract, as opposed to pipe manufactured by Cohoes Rolling Mill Company, which was installed.\(^{225}\) It is familiar to note that one might view this damage measure as what would be necessary, without transaction costs, to compensate the promisee for selling the delivered house and buying one complying with the contract. It is also familiar to note the damage measure provides a merely hypothetical substitute, however, because transaction costs would prevent the promisee from effecting the transaction.

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\(^{222}\) See supra notes 87–94 and accompanying text.

\(^{223}\) Compare Energy Capital Corp. v. United States, 302 F.3d 1314, 1319, 1333–34 (Fed. Cir. 2002) (affirming award of lost profits to new venture to finance energy improvement loans where government terminated program, breaching obligation, before the venture had originated a loan, although reversing as to choice of discount rate used in computations), with Wells Fargo Bank, N.A. v. United States, 88 F.3d 1012, 1022–23 (Fed. Cir. 1996) (disallowing damages for lost profits that plaintiff-lender allegedly would have realized on loans it could not extend as a consequence of defendant-guarantor’s breach of an obligation to guarantee a loan in the plaintiff-lender’s portfolio, where the breach obligated plaintiff-lender to charge off the loan). See generally 3 Farnsworth, supra note 36, § 12.14, at 262 (“Even if the borrower of money, buyer of goods, or other recipient can surmount the barrier of showing that the inability to cover was foreseeable, the recipient must then show that loss of profits on collateral transactions was also foreseeable in order to recover for that loss.”) (citing Wells Fargo Bank, 88 F.3d 1012).

\(^{224}\) 129 N.E. 889 (N.Y. 1921).

\(^{225}\) Id. at 891 (“In the circumstances of this case, we think the measure of the allowance is not the cost of replacement, which would be great, but the difference in value, which would be either nominal or nothing.”).
Whether it is appropriate to reference a hypothetical transaction—one the promisee could not, in fact, effect—in computing damages depends on the nature of the contract and the breach. Registration rights provide value in the form of liquidity to a promisee. A breach of registration rights resulting in a loss of liquidity goes to the essence of the benefit registration rights provide. Moreover, the harm to a promisee of a loss of liquidity is not necessarily bounded by what a hypothetical market would charge to provide liquidity. Assume, for example, that one could, at the time registration rights are breached, compute with precision what such a hypothetical market would charge. Providing that value might not make the promisee whole and, therefore, not be a majoritarian default, because the actual damage need not be limited to the amount a hypothetical market would charge for means to avoid the damage.

Language in an opinion by Justice Antonin Scalia gives rise to a useful analogy. Scalia notes, "'[F]or want of a nail, a kingdom was lost' is a commentary on fate, not the statement of a major cause of action against a blacksmith." An alternative conclusion might be reached on slightly modified facts. If an extra nail is contracted to be delivered, anticipating it may be necessary to shoe the horse necessary to defend the kingdom, the king might find inadequate a remedy for breach equal to the price charged for a nail elsewhere in the kingdom.

This concern is not merely hypothetical. Part V, below, contrasts two approaches to damage measures for breach of registration rights. One damage measure will not produce negative damages; the other may. However, the one that will not produce negative damages is based on a transaction that is more likely to be merely hypothetical (unavailable in practice).

226. See supra Part III.A. (describing how the resale of securities will be registered through "registration rights").

227. Holmes v. Sec. Investor Prot. Corp., 503 U.S. 258, 287 (1992) (Scalia, J., concurring). See generally JOHN BARTLET, FAMILIAR QUOTATIONS 347 (15th ed. 1980) ("'[F]or want of a nail the shoe was lost; for want of a shoe the horse was lost; and for want of a horse the rider was lost.") (quoting Benjamin Franklin, Courteous Reader (1758)).

228. See infra Part V.C.
2. Inability to Identify Consequences of Breach

Two other factors make it particularly difficult for a promisee of registration rights in breach to prove damage: the fungibility of liquidity and a difficulty in demonstrating what the promisee would have done absent breach.

Firms typically will have a portfolio of mechanisms by which they can acquire liquidity. For example, they may have lines of credit, or they may invest in easily sold securities, e.g., short term government securities. Liquidity is valuable, and firms will pay for liquidity by paying to have a line of credit or by investing in liquid securities having lower yields. This allows a firm to meet unanticipated demands without resorting to an unanticipated "fire sale" of assets. Adjustments to an unplanned loss of liquidity may be difficult to prove. On average, firms will adjust by acquiring additional liquidity in another way when they lose liquidity in securities, e.g., by increasing lines of credit or by readjusting their portfolios of assets to include more liquid investments. But the precise adjustment made by an individual firm in response to a specific contingency may be difficult to identify. A host of reasons can cause a firm to encounter breaches of bargained-for liquidity. Debtors may fail to make timely payment to the firm. Each promisee will want to ascribe to its breach the lowest-cost substitute performance acquired by the firm.

A similar phenomenon arises in the context of grade discussions between undergraduate professors and students. A former colleague, who taught Economics, recounted his reply when approached by some students who sought grade increases. Sometimes a student would, in discussing a course grade, tell my colleague that an increase in my colleague's class was necessary to allow the student to retain a GPA-based scholarship. This former colleague reported he would reply to each student something like, "The grade in my class was not the marginal one." By that, the professor meant that a grade increase in another class would also have resulted in retaining the scholarship, so it was another of the student's professors, not he, who was "responsible" for the student not meeting the required GPA. Of course, each professor could make the same assertion, meaning no professor was "responsible"—the "correct" result, at least from the faculty's perspective, although not necessarily for that reason.
The nature of registration rights also makes it particularly difficult for a promisee to prove what it would have done absent breach. That is important, because one of the two damage measures discussed below—again the one that won't produce negative damages—requires reference to what the promisee would have done absent breach.

Registration rights provide a securityholder with an option—the option to sell the securities in a registered transaction. The context of breach of registration rights has particular attributes that may be pertinent in assessing remedies. A promisor may repudiate an option that the optionor remains capable of performing merely because the optionor decides the transaction is not favorable. In such a case, for example, the option holder may request performance of a repudiated option at the time it would have sought to exercise the option, notwithstanding repudiation.\(^{229}\) The facts that cause breach of registration rights may, however, inhibit the promisee's seeking or requesting performance of registration rights. For example, the issuer's disclosure may become inaccurate due to a material transaction where it takes time to prepare required financial statements. The issuer will already be trying to update the disclosure; immediate reinstatement may not be within the issuer's power. Thus, once registration rights are breached, the promisee may not naturally demand reinstatement at the time when, but for breach, it would have sold the securities. It is troublesome to provide a damage measure that is only available to those who take atypical acts designed to memorialize facts pertinent to proving damages.

3. Conclusion

A thoughtful assessment of alternative damages measures cannot simply focus on whether appropriate incentives are created for efficient breach. It must also address the primary question: does a damage measure truly provide a promisee compensation that is adequate; or does it require proof of facts that is unlikely to be available, or provide compensation for breach of the

\(^{229}\) But see generally D'Oliveira v. Rare Hospitality Int'l, Inc., No. P.C. 99-1835, 2003 R.I. Super. LEXIS 28, at *14–15 (R.I. Sup. Ct. Feb. 13, 2003) (holding optionee of repudiated ninety-day options need not have sought to exercise them during the last nine days—when they were not under water—to preserve a claim for damages).
essence of the agreement based on hypothetical transactions not actually available?

V. A PROPER COMPUTATION VALUING LOSS OF LIQUIDITY

A. The Principle of Synthetic Registration Rights and the Short Sale Alternative

The *Duncan* opinion describes its damage rule as follows: "This is a sensible ‘bright line’ rule that is fair and achieves more certainty than the alternatives. Thus, it appropriately accommodates the reasonable expectations of the contracting parties *ex ante*, which are centered upon maximum freedom of choice for the stockholders." The damage awards in *Duncan* and *Madison Fund* do provide “bright line” rules. Yet, the reference to accommodating appropriately various expectations lacks content. The pejorative colloquialism “hand-waving” comes to mind. The courts do not provide a persuasive theory that ties the value of a single partially perfect coupled trade over a short time period to damage arising from loss of liquidity over time periods that may be substantially longer. This Part provides a theory and uses the theory to derive a proper damage measure.

One thing the promisee might do is immediately sell the restricted (unregistered) securities and buy registered securities in the open market. Sales of restricted securities, however, frequently can realize only a fraction of the value of registered securities. A twenty percent discount would not be uncommon, and the discount might be significantly higher. If the issuer promptly reinstated registration, the issuer might persuasively argue the promisee unreasonably mitigated damages and that discount, which could be substantial, should be borne by the promisee.

A better view of damages would focus on the cost a promisee may incur in acquiring a bundle of rights that, when added to possession of restricted securities, provides the promisee the

231. *See supra* Part III.D.
232. This would, of course, not work for a promisee who is a control person of the issuer, as the acquired securities also would not be subject to free resale. See 15 U.S.C. § 77b(a)(11) (2000); 17 C.F.R. § 230.144(b), (e) (2004).
233. *See supra* note 97 and accompanying text.
equivalent of possession of registered securities. This approach is somewhat reminiscent of Modigliani & Miller's proposition: "[T]he market value of any firm is independent of its capital structure."\textsuperscript{234} Miller described the famous work in the following simple terms:

Think of the firm . . . as a gigantic tub of whole milk. The farmer can sell the whole milk as is. Or he can separate out the cream and sell it at a considerably higher price than the whole milk would bring . . . . But, of course, what the farmer would have left would be skim milk, with low butter fat content and that would sell for much less than whole milk . . . . The M and M proposition says that if there were no costs of separation . . . . the cream plus the skim milk would bring the same price as the whole milk.\textsuperscript{235}

The promisee in the case at hand was promised registered securities. Assume they have a value of $A$. The breach has caused the promisee to have unregistered securities. Assume they have a value of $B$. Assume also that the promisee, for a cost of $C$, can obtain a bundle of rights that together with possession of unregistered securities are equivalent to possession of registered securities.

This re-bundling of rights of an instrument is suggested by the development in modern "financial engineering" of "synthetic" rights. The term "synthetic" is described by Knoll as follows: "[C]ash flow streams can easily be repackaged to create . . . ‘synthetics,’ which have a cash flow identical to that of an existing contract or recognized transaction."\textsuperscript{236} Thus, one might use the term \textit{synthetic registration rights} to identify a bundle of contract

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\textsuperscript{235} ROSS ET AL., supra note 14, at 401 (quoting Merton H. Miller's description to a television crew). After Miller delivered the above-quoted description to a television crew, in response to a request for a more easily understood example, he provided the following: "Think of the firm . . . as a gigantic pizza, divided into quarters. If now you cut each quarter in half into eighths, the M and M proposition says that you will have more pieces but not more pizza." Id. Because providing this more simple illustration caused the television crew to leave, Miller concluded: "I knew that I had somehow lost my chance to start a new career as a packager of economic wisdom for TV viewers in convenient ten-second bites." Id.
\textsuperscript{236} Knoll, supra note 21, at 63 ("The [put-call parity] theorem states that given any three of the four following financial instruments—a riskless zero-coupon bond, a share of stock, a call option on the stock and a put option on the stock—the fourth instrument can be replicated.").
\end{flushright}
rights that together with possession of unregistered securities subject to a registration right in breach provide the holder with the equivalent of registered securities.

In our formula, $C$ represents the cost of acquiring the synthetic registration rights. Absent transaction costs, as long as each of the components, represented by $A$, $B$, and $C$, can be acquired separately, $A$ should equal $B + C$. In that case, we may decide that damages for breach of registration rights should equal $C$, whatever that turns out to be, as long as the promisee has the ability to acquire the synthetic registration rights, even if the promisee does not actually acquire them.\(^{237}\)

This Part develops the principle of synthetic registration rights and then contrasts synthetic registration rights to a valuation based on a “short sale,” which has been proposed by Adler. It develops synthetic registration rights in two ways. Both approaches to synthetic registration rights can be conceptualized as the promisee immediately buying unrestricted stock in the market and relinquishing the restricted stock covered by registration rights then in breach. The first approach involves the promisee selling the restricted stock at the time of breach at a price fixed as of the time of sale. The problem with this approach is it cannot be priced, because the time the restricted stock will become freely tradable is not then known. This first approach thus will not work. The second approach can be conceptualized as an agreement to sell, also entered into at the time of breach, but for deliv-

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\(^{237}\) This analogy may be considered imperfect for a number of reasons. Ultimately the value of liquidity is dependent on the promisee. Its value is dependent on to whom it is allocated. In addition, the discussion below, see infra Part V.C, ultimately poses a choice between two damages measures that produce different results. One of the choices is “better,” in the sense of not producing “negative” damages, but it frequently will not be capable of being computed in practice and it more frequently will be unavailable to the promisee.

If we say that the value of liquidity varies based on the identity of the holder, that has implications for the general principle, identified in the text, that $A + B = C$ (meaning the value of the registered security equals the value of the unregistered security plus the value of the right to resell). If the value of liquidity varies based on the identity of the holder and this equation still holds, then either the value of the registered security as a whole, represented by $C$, must vary depending on the holder’s identity, or the value of the unregistered security, represented by $B$, must vary. However, there are frequently markets in both restricted and unrestricted securities, and those markets frequently, particularly as to unrestricted securities, would provide a price not dependent on the identity of the holder. Because this Article merely uses these theoretical constructs as providing inspiration for the approach taken, a resolution of this conundrum is beyond the scope of this Article.
ery of the security in the future. The time of delivery is the time
the issuer stops its breach and the stock is freely tradable, with
the purchase price not delivered, and the price not computed, un-
til the stock is freely tradable—the time of delivery.

The second approach to creating synthetic registration rights is
then contrasted with a “short sale” transaction, which has been
proposed elsewhere. The full details of this alternative involving
a short sale were not fully articulated by its proponent, but some
aspects are clear. The promisee does nothing immediately upon
breach. Rather, the promisee merely waits and, when it desires to
sell, if the registration rights have not been reinstated, the pro-
missee sells the security short. The promisee also then enters a
credit transaction (borrows funds), the details of which are un-
specified.

Now that the general concepts have been stated, it is helpful to
make a few assumptions to ease the detailed explication of the
damage computation. Assume there is a thick market in the secu-
rities in question and there is trading at the time the registration
is supposed to be in effect, although the promisee cannot sell the
restricted securities. Call the time the registration should have
been effective \( T_0 \) and the subsequent time the registration was in
fact effective \( T_1 \). Further assume no dividends are paid on the se-
curities during the suspension of registration and, lastly (solely
for ease of exposition), the securities in question represent 100
shares of common stock.

1. Initial Approach: Valuing Synthetic Registration Rights as of
the Time of Breach

The promisee \( P \) has bargained to have unrestricted securities
available for holding or disposition during the period registration
is not in effect. It has already been noted that it is impracticable
for the promisee to immediately sell the restricted securities, as
restricted, buy registered securities, and charge the difference to
the issuer.\(^{238}\)

The promisee might instead try to sell the securities “forward.”
It might say to a third party, whom we will call \( X \), something like
the following:

\(^{238}\) See supra notes 232–33 and accompanying text.
I have some restricted securities. But, at some point in time in the future they will be registered (freely saleable). Either a required holding period will have run or the issuer will have reinstated registration. I don't know when that will be. But why don't you give me cash now, and I will give you the securities at the future time when they are freely saleable.

The promisee could then take the cash proceeds, buy registered stock in the market, and charge the difference to the issuer in damages.

The problem with this approach to synthetic registration rights is the third party X will have difficulty pricing the transaction. One might seek to value this synthetic registration right by referencing well-known procedures for valuing forward contracts. A forward contract is an agreement in which persons agree to buy or sell a particular item at a specified time in the future at a price (the delivery price) specified at the time the contract is formed. One can derive the delivery price in the forward contract such that a party would neither demand nor be required to pay additional consideration to enter into the forward contract. If there is no risk of non-performance by either party, the delivery price in a forward contract will equal the spot (current) price for the property subject to the forward contract, increased by hypothetical interest on that amount at the risk-free rate over the time when delivery is due.

In this conceptualization of the synthetic registration rights, however, P and X have entered into a contract for delivery of an asset at an unspecified future time. Because the time for delivery is not specified at time T0, the typical procedure for valuing the forward contract, which depends on the time the security will be

239. It is assumed in this discussion that the item does not produce income, e.g., dividends, or suffer physical depreciation over the time period in question. Adjusting for that possibility makes the algebra more complex, without affecting the intuition.

240. See HULL, supra note 120, at 51. The intuition is that if the delivery price for the forward contract were higher, then a firm that can borrow at the risk-free rate would immediately (i) buy the property at the spot price, (ii) fund the purchase with a loan at the risk-free rate, and (iii) enter into the forward contract, agreeing to sell the property at the time the contract matured—profiting at the time the contract matured equal to the difference between the delivery price and the spot price at the time the contract was entered into plus interest on that amount at the risk-free rate. Hull also confirms that the price in a forward contract cannot be lower than the spot price increased by the hypothetical interest at the risk-free rate, a derivation that is a little more complex. Id. at 51–52. This analysis assumes a reasonably thick market. In other markets, a temporary shortage might cause the current price to exceed the forward price. See Jackson, supra note 208, at 94–95.
delivered,\textsuperscript{241} does not yield a valuation and cannot be used. There typically will not be a market that will provide the value of this transaction, where the time of future delivery is not specified in advance.

If $P$ actually entered into the transaction in good faith, that would provide a value. The absence of a market for delivery at an unspecified future date, however, suggests transaction costs in developing a covering transaction formulated in this fashion will be prohibitive, and promisees in $P$'s circumstance will not be able to recover in this fashion.

2. Valuing Synthetic Registration Rights as of the Time Registration Is Reinstated

Because it is likely to be impracticable to make this damage computation, alternatives need to be considered.\textsuperscript{242} There is an alternative formulation of the synthetic registration rights that can be more easily computed. In general, the promisee $P$ does two things at time $T0$ (initial breach):

First, the promisee $P$ buys 100 unrestricted shares in the market. Its bargain is it will have 100 unrestricted shares at that time, and it has now acquired them.

Second, the promisee $P$ agrees with a third party $X$ to sell to $X$ 100 unrestricted shares at the future time when registration is reinstated, at the market price in effect at the time the registration is reinstated. This will put the promisee in the position it bargained to be in at time $T1$—it will have either 100 unrestricted shares or the proceeds of their prior sale.\textsuperscript{243}

To effect these transactions, the promisee $P$ will need the cash to buy the 100 unrestricted shares at time $T0$. It did not bargain to lose that amount of liquidity. The promisee would therefore need to be compensated for the cost of borrowing the purchase price of 100 unrestricted shares for the period of time when registration was suspended ($T0$ to $T1$).

\textsuperscript{241} See Hull, \textit{supra} note 120, at 51.
\textsuperscript{242} One might seek to measure damages based on a series of daily forward contracts. That series of transactions seems impracticable for a promisee to effect.
\textsuperscript{243} The promisee will also hold 100 restricted shares while the issuer is in breach.
If the promisee enters into these transactions with a lender and a third party X, the promisee can be placed in the position it would have been in had the contract been performed by providing the promisee the cost of entering into these transactions.244

Valuation of the second transaction is a little subtle. It requires determining how much a third party will charge to buy a security in the future, when, at the time the contract is formed, neither the date of the sale nor the purchase price is set. In the absence of transaction costs, this obligation would be costless. The obligation to buy 100 shares at the market price at time \( T1 \) could be discharged without cost by buying 100 shares at that price and immediately reselling them in the market. Thus, the damage remedy that, if received at time \( T1 \) will make the promisee \( P \) whole consists of:

\[
(x) \text{ interest on the market value of the shares, as of the time the registration was suspended (time } T0), \text{ over the period of time of the suspension (from } T0 \text{ to } T1), \text{ at the promisee } P's \text{ cost of funds, plus }
\]

\[
(y) \text{ the market value of the shares as of the time the registration was suspended (} T0), \text{ minus }
\]

\[
(z) \text{ the market value of the shares as of the time the registration was reinstated (} T1).245
\]

A quantitative example may facilitate illustration of the calculation:

\[
244. \text{ The promisee will have possessed 100 restricted shares during the pendency of the breach. That is of limited value and cannot reasonably be considered as causing the promisee to be overcompensated.}
\]

\[
245. \text{ If there are distributions on the security during the suspension of registration, the promisee's damages would need to be adjusted.}
\]

One might also want to include in damages the bid-asked spread (transaction costs associated with a typical securities sale). Including the bid-asked spread is probably best categorized as reflecting an unwarranted measure of precision. And, for other reasons one might object to inclusion of the bid-asked spread. There might be other ways involving lower transaction costs to acquire liquidity. Thus, in the typical case, one might disregard the bid-asked spread.

In addition, the market prices referenced in the formula frequently will not be subject to determination with precision close to the amount of the bid-asked spread. Providing an average of the price over a limited period of time sufficient to replace the securities provides an unbiased estimate of the value as of the pertinent time, but is preferable to the value as of a particular time. As discussed above, see supra note 140 and accompanying text, the highest intermediate price over that period could be referenced, for purposes of allocating any risk of misspecification of the value to the defaulting promisor.
Assume the promisor suspends registration of 100 shares of its common stock from June 1 until December 1. On June 1, its market price is $10 per share. It is $7 per share on December 1. The promisee's cost of borrowing is ten percent per annum. The promisee's damages should be: $1,000–$700+$50, or $350.

This damage measure is close in concept to the measure used in *Madison Fund* and *Duncan*. It differs, however, as to interest, which is substituted for the value of a partially perfect coupled trade. The proposed measure of damage—the change in price plus interest on the value of the securities at the time registration was suspended—makes intuitive sense. The promisee has been deprived of liquidity, and one would therefore expect the damage measure to reflect, at least in part, the cost the promisee incurs at that time to maintain liquidity—its cost of borrowing.

It is important to note that, in two separate ways, the interest referenced here is not equivalent to prejudgment interest typically awarded. *First*, this interest must be based on the plaintiff's cost of funds. A fixed rate of prejudgment interest set by statute is inapposite. *Second*, in the typical case, prejudgment interest provided by law applies to a different principal amount—the damages. For example, the trial court in *Duncan* initially awarded prejudgment interest on a principal amount equal to the excess of (x), the highest intermediate value during a reasonable period of time following suspension of registration, over (y), the actual proceeds realized on resale of the securities. The principal amount on which the interest should be computed was reduced by the actual proceeds realized on resale.

246. In implementing the procedure, it would be preferable to reference average prices over some reasonable time periods compared to a price at a specific point in time, for reasons previously discussed. See supra note 138 and accompanying text.

247. One might assert the cost of funds used in computing these damages should be based on a loan secured either by the securities acquired or by the restricted securities. Such a loan could be subject to a margin call, and therefore impose risks the promisee did not bargain to bear. See generally THOMAS L. HAZEN & JERRY W. MARKHAM, BROKER-DEALER OPERATIONS UNDER SECURITIES AND COMMODITIES LAW § 8:6, at WESTLAW, SECBDOPS Database (discussing margin requirements and margin calls). Moreover, a security interest in the acquired securities would not work, because the entire point is to allow the promisee to sell the securities at any time. Subjecting the securities, or their proceeds, to a security interest is a claim the promisee did not bargain to assume.

248. See supra note 245 and accompanying text.


250. See id.
curiosities have a value of zero when registration is reinstated, customary prejudgment interest, even if at the correct rate, could apply to a smaller principal amount than is required to compensate the promisee fully. 251

3. Short Sale as a Substitute

In a thoughtful essay, Adler proposes a different cure for the shortcomings of Duncan. 252 He criticizes the outcome in Duncan on a number of bases. 253 Adler asserts:

The plaintiff’s remedy should have been the difference in value between the promised unrestricted shares and the delivered temporarily restricted shares. That difference was perhaps trivial. Given that stock prices do take a random walk, the only loss from a trading restriction, here of less than six months, would be the holder’s inability to sell those shares in the event of the holder’s need for liquidity or desire for portfolio diversification during the restricted period. The best a holder who wanted to sell could do would be to sell shares short, a credit transaction and the cost, including transactions cost, of a loan can exceed that of a sale. . . .

. . . [At the time TheraTx breached its contract, it might not have been clear that the restriction would last as long, and only as long, as it did. The length of the restriction affects the (liquidity-based) true damages. But a court ex post might have been able reasonably to estimate the expected length of the restriction ex ante, albeit as guided by hindsight. In any case, an ex post take on the length of the restriction in the context of an otherwise ex ante resolution likely would more closely resemble the efficient outcome than does the Duncan court’s determination, which awards the plaintiffs for a substantial ex post decline in price. 254

A short sale is the sale of borrowed stock. 255 Adler’s essay does not list all the details of the transaction in mitigation that he contemplates. Some of those details can be derived, however. Under the transaction Adler proposes, it must be that the short sale of the security would not take place at the time of the initial breach.

253. Id.
254. Id. at 31–32.
A short sale at the time of breach would not put the promisee in the promised position; it would insulate the promisee from any increase or decrease in value arising from market fluctuations. The promisee bargained for the right to select a time for selling the securities—the right to select the time as of which it would be insulated from subsequent market changes in the covered security. It did not bargain to allow the issuer to have the right to determine unilaterally that time. The mitigation Adler contemplates thus would involve the promisee simply waiting until it wanted to sell the restricted shares and, at that time, selling the shares short.

The Introduction of this Article notes that there are two rights associated with possessing registration rights: the right to liquidity and the right to insulate the holder from future price fluctuations.\footnote{256. See supra note 45 and accompanying text.} A short sale, by itself, only provides the holder the second of these two rights. Thus, fulfilling Adler's contemplated transaction in mitigation would also require some additional borrowing, on terms Adler does not specify.\footnote{257. In a typical short sale, the securityholder is required to keep cash collateral on deposit with its broker. See D'Avolio, supra note 255, at 275. The transaction actually involves a loan of the proceeds to the broker. See id. at 276. Thus, a typical short sale would insulate the securityholder from future swings in the security value, but it would not provide the liquidity one would get from selling securities. Thus, to complete the mitigation, the promisee would separately have to arrange for liquidity (borrow funds), and the cost of this liquidity would be charged to the issuer as part of the damages. It should be noted that Adler's brief essay principally criticizes Duncan from a different angle. Adler, supra note 16, at 29–30 (criticizing the court's ex post damages calculation). It would appear that is the reason why the details of the short sale transaction in mitigation, which Adler proposes, are not fully articulated in Adler's piece. It may be that Adler has in mind an arrangement in which the securityholder holds the restricted securities in an account with a broker, and the short sale is arranged through that same broker. See generally Bissell v. Merrill Lynch & Co., 937 F. Supp. 237, 240 n.5 (S.D.N.Y. 1996) (stating in connection with a lawsuit alleging inadequate disclosure of amounts realized by brokers on short sales against the box, that, in a typical short sale against the box, New York Stock Exchange rules would allow the investor to withdraw up to ninety-five percent of the proceeds, but doing so would result in the incurrence of margin debt), aff'd, 157 F.3d 138 (2d Cir. 1998).}
breach. Underlying that court's development of a sui generis damage measure is the assumption that breach of registration rights frequently will arise in contexts in which the promisee cannot prove what it would have done absent breach, hence the need for a damage rule tailored to the context. Duncan provides a method for assessing damages. Yet that damage measure is not tethered to a justifiable principle. This Article has demonstrated that the Duncan damage measure simply fails to compensate the promisee for a component of the promised performance. Reference to synthetic registration rights motivates development of a method for computing damages that is both (i) responsive to the need for providing a damage measure without proof of what the promisee would have done and (ii) developed from justifiable premises—damages may be computed by reference to the cost of transactions that recreate the promised performance.

In assessing whether the refinement proposed in this Article is a suitable alternative to the damage measure developed in Duncan, it is helpful to assess how radical the computation would be relative to other damage measures used. Damages based on synthetic registration rights would not be radical. Interest on the value of the entire amount of the covered securities was allowed in United Telecommunications, Inc. v. American Television & Communications Corp.258 Foreseeable additional interest costs arising from breach of contract have been held recoverable in a variety of contexts.259 The difference is that interest in United Telecommunications was apparently based on financing charges that would have been avoided had the plaintiff been able to con-

258. 536 F.2d 1310, 1314 (10th Cir. 1976).
summate a planned transaction.\textsuperscript{260} The interest in this case is based on the loss of an ability to enter into a hypothetical transaction.

There is other authority producing similar calculations. Brownstein notes interest on the value of a chattel was a traditional measure of damages for loss of use\textsuperscript{261} and argues "interest on the value of the 'lost' chattel should be reconsidered as the basis for loss of use awards in many cases."\textsuperscript{262} Failure to fulfill registration rights might be conceptualized as denying a plaintiff one of the components of "use" of a financial instrument. Brownstein notes that current law typically emphasizes alternative valuation procedures for loss of use of a chattel, referencing either the value the owner could receive on lease of the chattel or the cost of leasing a substitute.\textsuperscript{263} Although those distinctions can be important in connection with some chattels, those distinctions are of less moment in the case of a financial investment where there is a

\textsuperscript{260} United Telecomm., Inc., 536 F.2d at 1313 ("[The promisee] also presented testimony showing that [the promisor] was aware before entering into the agreement that [the promisee] had planned to convert the . . . stock to cash and would use that cash to reduce its short-term debts.").

\textsuperscript{261} Alan E. Brownstein, What's the Use? A Doctrinal and Policy Critique of the Measurement of Loss of Use Damages, 37 RUTGERS L. REV. 433, 438 (1985). See generally RESTATEMENT (SECOND) OF CONTRACTS § 348 cmt. b (1981) (stating, in discussing "breach that delays the use of property," "[a]nother possible basis for recovery, as a last resort, is the interest on the value of the property that has been made unproductive by the breach, if that value can be shown with reasonable certainty").

One analogy is proposed in the main discussion, for purposes of demonstrating that the contemplated remedy would not be dissimilar to all remedies that historically have been, or are currently, granted. This analogy adequately demonstrates the refinement proposed in this Article to the Duncan sui generis damage measure would not yield an outcome fundamentally discordant with all principles of remedies. No attempt is made here, however, to seek to harmonize the remedy proposed in this Article with all potentially analogous circumstances. See generally, e.g., Korea Life Ins. Co. v. Morgan Guaranty Trust Co., No. 99 Civ. 12175, 2004 U.S. Dist. LEXIS 16436, at *32–35 (S.D.N.Y. Aug. 20, 2004) (party to currency swap, which, under a separate loan facility, borrowed funds to pay termination fee under swap from the counterparty itself, held unable to recover from the counterparty the financing costs under that loan facility, notwithstanding the court's determination that the counterparty had, in breach of the swap, demanded a termination fee of $24 million too high; holding inapposite authority under the U.C.C. allowing a seller of goods to recover from a buyer in breach financing costs paid by the seller to third parties); ROY RYDEN ANDERSON, DAMAGES UNDER THE UNIFORM COMMERCIAL CODE § 2:17, at WESTLAW, DAMAGESUCC Database (updated Aug. 2004) (collecting authority concerning seller's recovery of finance charges arising from buyer's breach).

\textsuperscript{262} Brownstein, supra note 261, at 435.

\textsuperscript{263} Id. at 436, 438.
liquid market, and arbitrage in an efficient capital market would suppress the impact of those distinctions.\textsuperscript{264}

Some prior authority references, and rejects, more complex synthetic transactions in computing damages. For example, the court in \textit{American General Corp. v. Continental Airlines Corp.}\textsuperscript{265} evaluated a plaintiff's argument that valuation of an option should be based on a synthetic transaction.\textsuperscript{266} The court described the synthetic transaction as "elaborate schemes providing for the purchase of 'put' and 'call' options on . . . stock [of the defendant's corporate parent] that [the defendant contends] would have allowed [the plaintiff] to have 'locked in' the profit it is now claiming as damages."\textsuperscript{267} The court provided two rationales: the transaction was "too speculative to support a damage award"\textsuperscript{268} and it was "very unlikely that a regulated insurance corporation such as [the plaintiff] would (or even could) engage in short sales of the magnitude suggested by the expert testimony presented at trial."\textsuperscript{269}

This authority nevertheless is consistent with the proposed damage measure for breach of registration rights. The proposed damage measure is not complex; as discussed above, it is similar to the damage measure the common law formerly provided for loss of use.

\begin{footnotesize}
\begin{enumerate}
\item[264.] Some authority governing loss of use damages references the "lease out" rate—the rate the plaintiff could have received by leasing out the property. See \textit{id.} at 436. The liquidity of the securities markets diminishes the discrepancy that otherwise exists in "lease out" and "lease in" rates for chattels generally.
\item[265.] 622 A.2d 1 (Del. Ch. 1992).
\item[266.] \textit{id.} at 11.
\item[267.] \textit{id.}
\item[268.] \textit{id.}
\item[269.] \textit{id.} at 12. Some other authority rejects requirements that a promisee engage in short selling or options transactions to mitigate damages. For example, the court in \textit{KERS & Co. v. ATC Communications Group, Inc.}, 9 F. Supp. 2d 1267, 1273 (D. Kan. 1998), found that the holder of registration rights, which sought to sell the stock promptly, had not unreasonably failed to mitigate damages, notwithstanding that it neither sold short nor traded in put options and call options. See \textit{generally} Korea Life Ins. Co. v. Morgan Guaranty Trust Co., No. 99 Civ. 12175, 2004 U.S. Dist. LEXIS 16436, at *25–26 (S.D.N.Y. Aug. 20, 2004) (enforcing express agreement allocating to one party the duty to mitigate costs from unwinding swap and noting other party's mitigation would be unreasonable where it would have required acquisition of a put option at a cost almost equal to that party's annual net income).
\end{enumerate}
\end{footnotesize}
C. Inability to Effect Short Sale or Synthetic Registration Rights and Other Imperfections

Part V.A discusses two approaches to valuing breach of registration rights: synthetic registration rights and a procedure proposed (albeit without full detail) by Adler involving a short sale. The two approaches will produce different damage computations. That raises the question of which of the two approaches is preferable.

A basic difference between the two approaches is the synthetic registration rights approach can be valued even if the promisee does not in fact seek to mitigate damages by actually entering into the substitute transactions. Adler's approach is different because it requires reference to the day the promisee would have shorted the securities in question. By assumption—this is a procedure for valuing inchoate liquidity restrictions where the promisee cannot prove when it would have sold the securities—unless the promisee actually shorts the securities in question, the plaintiff will not be able to identify that day. It is therefore important to assess the extent to which a promisee could actually enter into one of these transactions in mitigation, or whether various circumstances impede entering into one or both of these transactions.

If there are no substantial impediments to entering into a short sale, one might persuasively argue that, unless the promisee entered into the short sale, it should not receive compensation. This section thus reviews factors that may inhibit entering into either of these transactions in mitigation. In sum, the impact of the problems is greater for Adler's approach. The following section then discusses the extent to which a failure actually to effect these alternative transactions affects the propriety of referencing these transactions in designing a damage measure and concludes that the failure to effect either transaction should not prevent

270. Adler does not detail the restrictions noted below to effecting his short sale transaction. He does, however, state, "[a]ssuming that relevant securities law and other law as well. . . would have permitted, . . . the issuer might have solved the plaintiff shareholders' liquidity problem with an open offer to purchase the restricted shares throughout the restricted period." Adler, supra note 16, at 33 (emphasis added). Thus, although Adler's essay does not note the extent to which federal securities law would inhibit the short sale he proposes, he does note the possibility that federal securities law would inhibit other actions the issuer could take to decrease damages, without detailing the pertinent terms. Id.
reference to one for purposes of computing damages. And, because only the synthetic registration rights can be valued without reference to a hypothetical sale date that, by assumption, cannot be proved, damages should be available based on synthetic registration rights.

1. Absence of Securities to Short

The short sale valuation methodology has a fundamental limitation not pertinent to the synthetic registration rights. This limit renders Adler's approach inapplicable to a significant segment of securities.

Because a short sale involves the borrowing of a security, it depends on the availability of securities that can be borrowed. Some securities, even equity securities, cannot be borrowed. D'Avolio reports, "[A]t most 16% ... of the stocks found in the monthly Center for Research in Security Prices (CRSP) file are potentially impossible to short." This percentage may overstate the likelihood that a security subject to registration rights could be borrowed, because less-widely-traded securities are more likely to be unavailable for lending and those securities are more likely to be the subject of registration rights. For these securities, a short sale simply cannot be used to mitigate damages or compute the value of breach.

271. D'Avolio, supra note 255, at 271.
272. Id. at 273 (stating, however, that "[m]ost stocks can be borrowed").
273. Id. at 273. D'Avolio reviews the securities available for lending by "one of the largest security lenders in the world." Id. at 281. It appears, from reviewing that paper, the sixteen percent represents securities in CRSP that are neither included in an exchange's monthly short interest nor included by that lending institution as being available for loan. See id. at 281–82. This would mean there is a possibility that securities were available for borrowing, but they were neither reported by an exchange in the short interest nor available from this lender.

The securities are also less likely to be available shortly after an IPO. Todd Hoge et al., Divergence of Opinion, Uncertainty, and the Quality of Initial Public Offerings, 30 FIN. MGMT., Winter 2001, at 5, 6. In a typical IPO, large securityholders will agree not to resell their shares within a few months, perhaps three or six, following the offering. JOHNSON & MCLAUGHLIN, supra note 166, at 89. These contractual restrictions may moot any failure to comply with registration rights immediately following an IPO.
274. See D'Avolio, supra note 255, at 283 ("[S]tocks without short interest are generally small, illiquid stocks.").
In addition, securities that are borrowed may be subject to being recalled by the lender.\textsuperscript{275} Effecting a short sale may therefore require the promisee assume the risk, which it did not expressly bargain to assume, that the securities sold short will be recalled and the promisee therefore will be unable to maintain the short position.

2. Section 16

Section 16 of the Securities Exchange Act of 1934 ("1934 Act")\textsuperscript{276} could limit both the short sale contemplated by Adler and the synthetic registration rights developed in this Article. Section 16 applies to officers, directors, and beneficial owners of more than ten percent of an issuer's class of registered equity securities.\textsuperscript{277} Section 16(c) makes it unlawful for those persons to effect a short sale.\textsuperscript{278} A short sale is called "against the box" where "the person sells short even though the person owns securities that can be delivered."\textsuperscript{279}

Commentators generally construe section 16(c) as rendering unlawful short sales "against the box" by the covered persons.\textsuperscript{280}

\textsuperscript{275} Id. at 295–301 (discussing recalls).
\textsuperscript{277} Id. § 78p(a), (c) (2000). Section 16(c) creates concerns not only for those subject to section 16(c) at the time of breach, but also those who, as of that time, may desire in the future to become a beneficial owner of more than ten percent of the issuer's securities. The beneficial ownership rules under section 13 of the 1934 Act, including 17 C.F.R. § 240.13d-3 (2004), are generally used in computing beneficial ownership for purposes of determining whether section 16(c) applies. Id. § 240.16a-1(a)(1) (2004).
\textsuperscript{278} 15 U.S.C. § 78p(c).
\textsuperscript{279} Id. at 295–301 (discussing recalls).
\textsuperscript{280} Id. at 295–301 (discussing recalls).
which would make the short sale Adler contemplates by those securityholders unlawful. Loss and Seligman, however, note an SEC release indicates section 16(c) does not render unlawful “short sales against the box where the securities ultimately to be delivered already belong to the seller.” 281 Yet using the unregistered securities, even when subsequently registered, to close out the short could violate section 5 of the 1933 Act. 282 The problem is that, if a formerly unregistered security is delivered to cover a short, for purposes of section 5 of the 1933 Act, the subsequently registered security may be treated as if it were sold at the time the short sale was effected, i.e., when the registration was suspended. 283 Thus, there are significant potential impediments un-

not made, he lost an opportunity to gain a profit, and suffered economic injury of over $200,000.00. However, the expert witness for Claimants did agree that a simple short of a restricted stock was a violation of Rule 144 . . . .

Id.; see also SEC. & EXCH. COMM’N, MANUAL OF PUBLICLY AVAILABLE TELEPHONE INTERPRETATIONS C-3 (July 18, 2001), available at http://www.sec.gov/interps/telephone/1997manual.txt (last visited Nov. 14, 2004) (“A person holds only restricted securities and has held them for less than one year. Such person cannot effect a short sale of securities of that class, and then cover with such person’s restricted securities (even though the restricted securities are now eligible for sale) since the initial short sale did not qualify under Rule 144.”). Adler also recommends that an issuer make an ongoing offer to repurchase the restricted securities for purposes of limiting liability for breach. Adler, supra note 16, at 33. Putting aside the issue of whether such a repurchase could be effected without potential liability for inadequate disclosure, if the parties desired to resolve the dispute, they might alternatively arrange for the issuer to deliver a derivative instrument whose value was based on the difference between the market price as of some time selected by the holder and the market price as of the time registration were to be reinstated. This kind of derivative security could realize the same benefits as a short sale without running afoul of section 16(c). See generally 17 C.F.R. § 240.16c-4 (2004) (excluding put equivalent positions).

281. 5 LOSS & SELIGMAN, supra note 79, at 2478 n.256 (rev. vol. 2001).

A “short sale against the box” is a brokerage transaction in which the seller already owns an amount of securities at least equal to the amount he wishes to sell short. While Section 16(c) of the Exchange Act prohibits insiders from making short sales, i.e., the sale of a security which the seller does not own, this prohibition does not extend to short sales against the box where the securities ultimately to be delivered already belong to the seller.


An issuer filed a Form S-3 registration statement for a secondary offering of common stock which is not yet effective. One of the selling shareholders wanted to do a short sale of common stock “against the box” and cover the short sale with registered shares after the effective date. The issuer was advised that the short sale could not be made before the registration statement becomes effective, because the shares underlying the short sale are deemed to be sold at the time such sale is made. There would, therefore, be a violation of
der section 16 for these persons to effect the short sale mitigating transaction.

The application of section 16 to the synthetic registration rights is interesting. It is easier to examine by referencing two quantitative examples.

**Example 1:** The registration is suspended when the market price is $10. It is reinstated when the market price is $7.

Effecting the synthetic registration rights would involve the promisee buying the securities at $10 and selling them at $7, representing a $3 loss per security. These two transactions, by themselves, would not result in liability under section 16, because the purchase price is less than the sales price. The promisee's damages would be that $3 loss per security, plus interest on $10 per security during the suspension of the registration.

**Example 2:** The registration is suspended when the market price is $10. It is reinstated when the market price is $13.

Effecting the synthetic registration rights would involve the promisee buying the securities at $10 and selling them at $13. The promisee would not have recoverable damages, unless interest on the $10 exceeded $3.

This is one of the cases that results in "negative" damages—an ex post damage measure that can create a biased damage award. The amount of the "negative" damage is $3, less interest on $10 over the suspension of registration. If the promisee effected the covering transaction, however, absent some defense, this is one of the cases that results in "negative" damages—an ex post damage measure that can create a biased damage award.

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284. See supra Part IV.B.1.
285. See generally C.R.A. Realty Corp. v. Fremont Gen. Corp., 5 F.3d 1341, 1342–43 (9th Cir. 1993) (construing the loan exemption to section 16(b)); see also Colan v. Mesa Petroleum Co., 951 F.2d 1512, 1523 (9th Cir. 1991) (rejecting economic coercion as a basis for an exemption from application of section 16(b), where the securityholder exchanged stock for debt securities in the issuer's self-tender); Cutler-Hammer, Inc. v. Leeds & Northrup Co., 469 F. Supp. 1021, 1023 (E.D. Wis. 1979) (“The fact that [the issuer] had the power to approve the purchase and sale of its own shares by Cutler, and did in fact agree to such transactions, does not immunize Cutler from liability under § 16(b). One of the statute's prime objectives is the prevention of questionable transactions on the part of insiders to the detriment of minority or outside shareholders who may have had no voice in the approval of the transactions. Courts have consistently held, therefore, that waiver and estoppel are insufficient defenses as a matter of law to actions asserted under section 16(b).” (citation omitted)); ARNOLD S. JACOBS, SECTION 16 OF THE SECURITIES EXCHANGE ACT § 3:86 (2004) (discussing defenses to section 16(b) liability).
the promisee would have liability under section 16 for $3 if the transactions occurred within six months. For the synthetic registration rights to work (be fully compensatory), either the promisee would have to have a valid defense under section 16 or the issuer would have to pay the securityholder the “interest” component.

If the securityholder has effected other transactions in the securities, application of section 16 becomes more complex. For example, if the securityholder in Example 2 acquired other registered securities at $8 shortly before registration, it might be liable for $5 in short-swing profits. The possible consequences of application of section 16 would depend on the transactions in the securities otherwise entered into by the securityholder and the availability of a possible defense to the application of section 16. Examining those possibilities in the abstract does not seem profitable. Reference to section 16, however, does identify a reason why some holders of registration rights in breach might not seek to effect the synthetic registration rights developed in this Article.

In sum, there is a significant question whether securityholders covered by section 16 could effect the short sale transaction in mitigation. The synthetic registration rights would be subject to more limited restriction under section 16. Full compensation of the securityholder would require application of an exception or separate receipt of additional damages. Absent a defense under section 16, the section would prevent a covered promisee’s realizing “negative” damages, eliminating the bias of the damage measure favoring the promisee.

287. See supra note 285 and accompanying text.
288. See supra note 245 and accompanying text.
289. See supra notes 276–88 and accompanying text.
290. See supra notes 276–88 and accompanying text.
291. See supra notes 276–88 and accompanying text.
292. See supra notes 276–88 and accompanying text.
3. Rule 10b-5

Rule 10b-5 raises a second concern as to the adequacy of both approaches to valuing breach of registration rights. Rule 10b-5 may inhibit the short sale in mitigation. Short sales are subject to Rule 10b-5. Holders of registration rights are typically insiders: employees, venture capital firms, or others with material investments in the firm. The securities at issue in Duncan, for example, were issued to shareholders of a firm TheraTx had previously acquired in a merger. Material developments in the issuer's financial position, making its prior SEC disclosure no longer accurate, would be a primary cause for suspension of the registration statement. That is what happened in Duncan. The issuer acquired another firm, making its then-existing disclosure incomplete.

Many holders of registration rights in this circumstance will be unable to effect a short sale. The holders may well be aware of information the issuer has not made public, whether about the circumstances that caused the issuer to suspend the registration or about other matters, which could cause their sale of the securities to be unlawful. Thus, some set of holders of registration rights

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294. See United States v. Smith, 155 F.3d 1051, 1064, 1069–70 (9th Cir. 1998) (affirming a conviction for insider trading where the jury instructions contemplated a finding of a violation from either a sale of securities owned or a short sale); United States v. Russo, 74 F.3d 1383, 1392 (2d Cir. 1996) (addressing whether particular short sales were sufficiently connected with fraudulent scheme for purposes of creating liability under Rule 10b-5); cf. HFTP Invs., L.L.C. v. ARIAD Pharms., Inc., 752 A.2d 115, 117 (Del. Ch. 1999) (stating issuer's allegation that holder of a convertible security violated duty by selling short while in possession of material nonpublic information).
295. See supra notes 70–77 and accompanying text.
298. Duncan, 775 A.2d at 1021. One might assert that a securityholder in possession of material nonpublic information is not harmed by the suspension of the registration, because possession of the information would make the securityholder's trading at that time unlawful. That view is incorrect. The scope of the obligation necessarily depends on the express language. A promise to register shares may include an undertaking to disclose all material information or an undertaking not to take actions that would make the disclosure misleading. See supra note 83. Had the issuer disclosed all material information, i.e., absent breach, the securityholder would have been able to sell. In essence, a securityholder, in acquiring particular registration rights, may have bargained for the issuer to provide accurate disclosure on a continuous basis.
299. Rule 10b-5-1, codified at 17 C.F.R. § 240.10b-5-1 (2004), clarifies that, subject to
would not be content, at the time of breach, to wait until they desired to sell their securities and then effect a short sale. A short sale in the future might be unlawful and an inability to effect a short sale could result in damage not recoverable because (i) its proof would be speculative or (ii) the damages could have been avoided with the synthetic registration rights discussed above.

The synthetic registration rights contemplate the promisee buying securities at the time the registration rights are suspended and selling securities when they are reinstated. If the registration rights are suspended because the issuer’s disclosure is not accurate, the first transaction, the purchase, also may be unlawful. The promisee may have non-public information, and its acquiring the securities may therefore be unlawful. There presumably would not be a problem for the second (sale) transaction. That happens when registration is reinstated, so the disclosure should be accurate as of that time.

4. Pertinent Time to Assess Impediments

In assessing the significance of these impediments, it is helpful to focus on the time when a promisee is required to determine how it will mitigate its damages and the certainty as of that time of an ability to mitigate through a short sale transaction. The “duty” to mitigate (or, less colloquially, the exclusion from recoverable damages those that can be avoided by reasonable mitigation) does not obligate the promisee to undertake significant additional risk. The risk needs to be assessed ex ante—as of the time the promisee learns of the breach and has to decide how it

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301. See id. § 350.
302. See supra Part V.A.2.
303. RESTATEMENT (SECOND) OF CONTRACTS § 350 (1979) (referencing “undue risk, burden or humiliation”).
will mitigate damages. Adler’s proposed mitigation requires the promisee at some future time following breach to effect a short sale. Requiring this action in mitigation is only reasonable if, as of the time the issuer breaches, the promisee has an appropriate level of assurance that at the future points in time when the securities are required to be registered, it will be able to effect a short sale.

Reference to dates is useful in illustrating the point. Assume the issuer is required to have registration effective through June 1 and it breaches the obligation on the preceding January 2. It is only reasonable to assess mitigation based on a short sale during breach if, as of January 2, it is clear the promisee will be able to effect a short sale at any point in time from January 2 through June 1. If the promisee does not have that assurance, it may be in the position of waiting to sell short on, for example, March 1 and being unable to sell short at that time. For example, assume the stock price doubles from January 2 to March 1, and then returns to the January 2 price when registration is reinstated (or the securities can be freely resold absent registration). If the promisee seeks damages based on the share price on March 1, the issuer may successfully argue that, through procedures underlying the synthetic registration rights, referenced above, the promisee could have captured that price increase and, therefore, those damages cannot be recovered.

5. Other Imperfections in the Damage Measures

The damage measure developed above may not produce a fully compensatory damage measure in a few other contexts. One context in which this damage measure may prove inadequate is where the amount of covered securities is substantial. The ability to trade a large block of stock can sometimes allow a securityholder to capture a “control premium,” meaning some value over

304. See supra Part IV.B.1.
305. Adler, supra note 16, at 32–33.
306. See supra notes 35–36 and accompanying text.
the market price per share for small trades, because the buyer acquires some measure of control over the issuer.\textsuperscript{308}

Even where a control premium is not applicable, covering transactions of a very large size may be sufficient to move the market adverse to the covering party.\textsuperscript{309} If, for example, it required a five percent premium over the market price to buy that quantity of shares, and another five percent discount to sell the same number of shares, the cost of merely covering the promised performance with registered shares in the absence of any other market change could be substantial. Of course, the holder of the securities, had they been registered, would have been required to give up a similar discount in order to sell the entire block. But that discount would have only been incurred once had the promisee performed.

Similar concerns could arise in connection with Adler's short sale damage computation. A holder might be unable to borrow a large block of securities.

The damage measure derived above similarly may not work well in the absence of a thick market. There are a few reasons. First, transaction costs in effecting the covering transaction may be substantial. Unless those transaction costs are provided, the promisee cannot acquire the equivalent of the rights in the market. Second, this procedure does not provide the bargained-for amount of public float (shares available for resale in the market). The amount of the public float can affect market prices that can be realized. The promisee's acquiring unrestricted securities in the market does not put it in the position of having unrestricted shares in a market of the size for which the promisee bargained.

These factors raise some concerns with the damage measures discussed above, as alternatives to the damage measures courts have developed. A comprehensive assessment of the factors is

\textsuperscript{308} See, e.g., 2 JAMES D. COX & THOMAS LEE HAZEN, COX & HAZEN ON CORPORATIONS § 12.01, at 620 (2d ed. 2003).

\textsuperscript{309} See Broadcort Capital Corp. v. Summa Med. Corp., 972 F.2d 1183, 1192-93 (10th Cir. 1992) (affirming, under New Mexico law, a jury award for conversion damages greater than the per share value at the time of conversion (refusal to register securities transfer) where purchasing the amount of securities in question would have affected market prices); Siegler v. Living Aluminum, Inc., [1961-1964 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 91,266, at 94,209 (N.Y. Sup. Ct. Sept. 24, 1963) (noting, in case concerning breach of registration rights, that purchasing in the market the number of shares the issuer was required to register would have dramatically changed the market price).
context-specific and therefore not easily addressed in the abstract. The damage principles developed above, however, notwithstanding imperfections, represent a better starting-point for damage computations than approaches contemplated by the case law.

6. Ability to Manipulate Damages

A final consideration unique to the synthetic registration rights involves the issuer's ability to manipulate the damages. Adler notes stock prices are frequently modeled as following a random walk.310 Even if one takes that as true in the abstract, it is not true if the time the walk begins is selected by the issuer and the issuer bears the burden of the outcome of the walk. This possibility has conflicting implications.

It is possible that the parties would at the time of contracting prefer the synthetic registration rights developed above. Using synthetic registration rights aligns some of the incentives of the parties. If, during breach, the issuer knows the stock price is going to rise rapidly, it has an incentive to postpone reinstatement. The securityholder might prefer to be prevented from selling at that time.311 An issuer that expected registration suspension generally to be associated with positive events, e.g., favorable acquisitions, might prefer the synthetic registration rights damage measure.

The issuer's control over damages produced by the contemplated synthetic registration rights is not unambiguously positive to the promisee. As long as the securities price rises during the suspension, at a rate greater than the promisee's cost of funds, the issuer can with impunity refuse to reinstate registration, because the damages are "negative." A promisee might object to the incentives created.

310. See supra text accompanying note 254.
311. Use of material nonpublic information in deciding not to effect a transaction is not proscribed by Rule 10b-5. See 17 C.F.R. § 240.10b-5 (2004); see also Jesse M. Fried, Insider Abstention, 113 YALE L.J. 455, 456 (2003).
7. Conclusion of Comparison of Short Sale and Synthetic Registration Rights

This Part has examined two alternative transactions that a promisee might contemplate as part of mitigation. Assessing the relative merits of the two valuation approaches in many cases will be a matter of judgment. The wide array of possible factual contexts does not make it practicable to articulate a comprehensive, rigorous algorithm by which one approach to valuing remedies should be selected over the other. In general, the impediments to effecting the short sale valuation methodology are greater than those of the synthetic registration rights. Some securities cannot be shorted. The short sale methodology won't work in those cases. The short sale methodology is subject to greater restrictions under section 16 of the 1934 Act. It also requires a promisee, at the time of breach, to undertake the risk that, at a future time, it will be in possession of nonpublic information and be unable to effect the transaction. Most significantly, that damage computation requires the promisee to be able to identify when during the restricted period it would have sold the securities. Consistent with these concerns with the short sale methodology, at least one district court has found, albeit for reasons one might ascribe to inadequate utilization of expert witness evidence, that damages for breach of registration rights need not be limited by costs that could have been avoided by selling the covered securities short.

ATC argues that the requested amount of damages should be reduced, since KERS failed to mitigate its damages by short-selling or engaging in "put" and "call" options trading. The uncontroverted evidence submitted by KERS establishes, however, that such approaches would have exposed KERS to additional risks of loss. A party seeking recovery for damages due to a breach is subject to the requirement that they have not acted unreasonably so as to increase the damages which would otherwise exist. Such reasonable efforts at mitigation do not require a party to subject themselves to the risk of incurring additional losses.

Id. (citation and footnote omitted). A footnote to the second sentence states:
Plaintiff's Statements of Fact ¶¶ 47-61, relating to this issue, are wholly ignored in the defendant's response, save for the observation that mitigation is a duty and that the suggested approaches would have been "simple." As noted above, the touchstone of a party's duty to mitigate is reasonableness, not simplicity. Defendant offers no evidence to controvert plaintiff's evidence
This Article has argued that unless either (i) the promisee actually effects the transaction in mitigation (the short sale or synthetic registration rights) or (ii) the promisee takes actions designed merely to enhance its ability to prove damages in subsequent litigation, the promisee may be unable adequately to prove what it would have done. That substantially reduces the desirability of the short sale approach and is inconsistent with the premise of the sui generis damage measure developed in the case law. It is not desirable to create a legal rule that deprives a promisee of damages for breach of a valuable contractual right merely because the promisee did not take unusual acts that one would take only to be able to memorialize damages subsequently.

Of course, for many assets having fluctuating values, there is not a ready market for a short sale. Thus, the synthetic registration rights principles are more easily extended to disputes involving liquidity restrictions on other types of property than is the short sale approach.

D. Recovery Based on Synthetic Registration Rights Absent the Transaction Being Effected

One final question to be addressed explicitly is whether the failure of a promisee to effect either of these transactions in mitigation (the short sale or the synthetic registration rights) should prevent the promisee from recovering damages computed based on the cost of those transactions. This Part argues a promisee's failure to effect the synthetic registration rights developed above should not prevent its recovery of damages by reference to the consequences of having entered into synthetic registration rights.

Part V.B notes certain risks associated with effecting synthetic registration rights that the promisee did not, by contract, expressly assume. Depending on the context, those risks, together with the cost of acquiring appropriate legal advice, could justify the failure to effect the synthetic registration rights. In addition, as noted above,314 courts in various contexts have held that where

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314. See supra note 182; see also, e.g., Schultz v. Commodity Futures Trading Comm'n,
a breach involves property having a fluctuating value, damages are measured as of some point in time, with downward price fluctuations thereafter being at the expense, and upward price fluctuations thereafter being to the benefit, of the plaintiff. The plaintiff who continues to hold the property is considered thereby to have made a new investment decision; the plaintiff’s having made that choice does not affect its damages. For even stronger reasons, a holder of securities as to which registration rights have been breached should not be required to effect the synthetic registration rights in order to become entitled to damages based on the cost of entering into synthetic registration rights.

The first reason involves the transaction costs associated with effecting the transaction for which it would not be compensated. The second reason is that effecting the transaction would expose the promisee to increased risk upon insolvency of the promisor. The second concern can be developed with an illustration. Consider, for example, a securityholder having an investment of one million restricted shares, whose resale has been registered and worth, if immediately sold in the public market, $10 million. Assume the securityholder’s other assets are cash of $10 million. It has a balance sheet that looks like the following:

**Balance Sheet Before Breach**

<table>
<thead>
<tr>
<th>Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Marketable Securities</td>
<td>$ 10 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 20 million</td>
</tr>
<tr>
<td>Liabilities:</td>
<td>$ 0 million</td>
</tr>
<tr>
<td>Shareholders’ Equity:</td>
<td>$ 20 million</td>
</tr>
</tbody>
</table>

If the issuer defaults and the securityholder immediately effects the synthetic registration rights, its balance sheet looks, at best, like the following:

716 F.2d 136, 140 (2d Cir. 1983) (supporting conclusion the plaintiff need not have re-entered the market, in order to recover damages based on market prices); *accord* Scully v. US Wats, Inc., 238 F.3d 497, 514 (3d Cir. 2001) (quoting Schultz, 716 F.2d at 140).
### Balance Sheet After Breach and Synthetic Registration Rights

<table>
<thead>
<tr>
<th>Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Marketable Securities</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Restricted Securities</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Claim vs. Issuer</td>
<td>$ 0 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 30 million</td>
</tr>
<tr>
<td>Liabilities:</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Shareholders’ Equity:</td>
<td>$ 20 million</td>
</tr>
</tbody>
</table>

The claim against the issuer has no value, because, as of that time, there has not been a change in the stock price and no interest has accrued.

This statement actually overstates its financial position, because no discount has been taken for the illiquidity of the restricted securities. Making an adjustment for that would obscure the purpose of the balance sheets—to show that by actually effecting this synthetic registration right, the securityholder has incurred additional risk. That can be seen by comparing balance sheets, one where the promisee did not effect synthetic registration rights following breach and one where it did, in the extreme case where, at the time the registration is reinstated, the issuer’s stock has become worthless and claims against the issuer are worthless, because the issuer’s assets will be consumed in bankruptcy:

### Balance Sheet With Breach and Synthetic Registration Rights Not Effected; Stock Now Worthless

<table>
<thead>
<tr>
<th>Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Marketable Securities</td>
<td>$ 0 million</td>
</tr>
<tr>
<td>Claim vs. Issuer</td>
<td>$ 0 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 10 million</td>
</tr>
<tr>
<td>Liabilities:</td>
<td>$ 0 million</td>
</tr>
<tr>
<td>Shareholders’ Equity:</td>
<td>$ 10 million</td>
</tr>
</tbody>
</table>
Balance Sheet With Breach and Synthetic Registration Rights Effected; Stock Now Worthless

Assets:
- Cash $10 million
- Marketable Securities $0 million
- Restricted Securities $0 million
- Claim vs. Issuer $0 million
- Total $10 million

Liabilities: $10 million

Shareholders’ Equity: $0 million

In these two balance sheets, the claim against the issuer is the same. Each is based on the “damage” arising from having effected synthetic registration rights. In the first balance sheet, however, the promisee did not, in fact, effect the synthetic registration rights. So it neither has the unrestricted (marketable) securities in its assets, nor does it have a liability representing the cost to enter into the synthetic registration rights.

This extreme example illustrates the point: requiring the promisee to effect the synthetic registration rights has increased the promisee’s reliance on the issuer’s financial position. This relationship further supports allowing recovery based on synthetic registration rights by a promisee who did not effect them.

VI. CONCLUSION

This Article develops a textured principle for measuring damages for breach of an obligation to provide liquidity in property having a fluctuating value by referencing a paradigmatic market of property having a fluctuating value—the securities market. Case law has sought to develop a damage measure that can be applied to value a breach of an obligation to register securities without proof of what the promisee would have done absent breach. Yet that authority provides a damage measure that is not fully compensatory. Proceeding from the premise, reflected in the case law, that there is a need for a compensatory damage measure in cases where there is inadequate proof of what the promisee would have done absent breach, an approach to assessing those damages more fully, based on the cost of a promisee’s syntheti-
cally recreating the pertinent bundle of rights, is developed in this Article.

The damage measure can be summarized as the sum of the price drop during the loss of liquidity plus hypothetical interest at the promisee's cost of funds, over that time period, on an amount equal to the value of the securities at the beginning of the pertinent period. This damage measure is elegant; it would not be unduly cumbersome to compute, and it would harmonize the damage measure in this context with damages historically provided for loss of use of a chattel.

An alternative damage measure proposed by Adler, which also has appeal in some cases, is based on a hypothetical short sale. Both the damage measure developed in this Article and the alternative short sale approach have potential drawbacks. The damage measure developed in this Article is superior for use in the wider range of cases where the property subject to liquidity restrictions is not capable of being borrowed and sold by the promisee, which includes cases involving promises to provide liquidity in some stocks as well as much other property. It is also subject to fewer restrictions under pertinent federal securities laws than mitigation involving a short sale, although it is not free of restrictions. Finally, this Article argues that, because of these impediments and the transaction costs associated with effecting the synthetic registration rights, the failure to have effected the necessary transactions should not prevent reference to them in computing damages.