

CLAIMS COURT ADDRESSES VALUATION OF RESTRICTED STOCKS IN *LITMAN V. UNITED STATES*

Trey Stevens

Valuations of stock subject to either contractual restrictions or Securities and Exchange Commission restrictions (i.e., restricted stock) are often performed for estate tax, gift tax, and income tax purposes. One important procedure in the valuation of restricted stock is the application of an appropriate discount for lack of marketability. The United States Court of Federal Claims decision in Litman v. United States provides a comprehensive analysis of both the empirical models and the theoretical models used by valuation analysts to quantify the discount for lack of marketability applicable to large blocks of restricted stock.

INTRODUCTION

In *Litman v. United States*¹ the United States Court of Federal Claims (the “Claims Court”) found itself addressing the arguments put forth by three opposing valuation experts: (1) the expert for the recipients of restricted common stock shares in a publicly traded company, (2) the expert for the issuer of the restricted stock, and (3) the expert for the Internal Revenue Service. The Service believed it was “whipsawed” by the two contradictory valuations.

The issues in this case included (1) the unrestricted price of the subject shares of restricted stock and (2) the appropriate discount for lack of marketability to be applied to the unrestricted price in order to determine the fair market value of the subject restricted stock shares.

Due to the comprehensive analysis of the positions of the experts contained in the Claims Court’s decision, as well as the magnitude of the discounts determined by the Claims Court, the *Litman* decision can be considered to be a landmark case in regards to the valuation of restricted stock.

This discussion provides a summary of (1) the facts of the case, (2) the positions of the valuation experts who testified before the United States Court of Federal Claims and (3) the Claims Court published decision.

FACTS OF THE CASE

Friends since Cornell Law School, David S. Litman and Robert B. Diener had been business partners since the early 1980s. In the early 1990s the men saw an opportunity to enter the hotel business. In 1991, Litman and Diener founded (1) TMF, a Texas corporation, and (2)

HRN Marketing, a Florida corporation. Litman and Diener began doing business as Hotel Reservations Network (HRN), which later changed its name to Hotels.com.

In 1999, Litman and Diener sold HRN to USA Networks for \$150 million and possible additional purchase payments. The additional payment would depend on the company’s performance in the future with Litman and Diener retained at the helm.

Following the sale of their company, Litman and Diener continued as employees of HRN and served on the new company’s board of directors, although they did not control it. Litman was CEO of HRN and Diener was president of HRN. After working as independent entrepreneurs for fifteen years, Litman and Diener soon chafed under the parent company’s control. The men were particularly frustrated by (1) the parent’s demands on their time and (2) the control the parent company had over HRN (including hiring, strategic decision-making, and reporting requirements).

On November 5, 1999, the HRN board of directors authorized the initial public offering (IPO) of HRN stock. To Litman and Diener’s chagrin, the authorization came only seven months after the sale of HRN. The decision to go public was based, at least in part, on (1) the fast-paced industry in which HRN was involved and (2) how quickly the Internet travel industry was changing.

As part of the IPO process, Litman and Diener entered into discussion with USA Networks to exchange their earn-out rights for additional shares of stock in HRN. On February 2, 2000, Litman and Diener entered into an amended purchase agreement, which converted the earn-out provisions to which Litman and Diener were entitled under the original asset purchase agreement to HRN restricted stock.

On February 24, 2000, the final IPO price was set at \$16.00 per share and HRN issued to Litman and Diener 9,999,900 restricted shares of HRN stock subject to contractual restrictions. The most important restriction was that the shares would be released in four tranches over a four-year period. Table 1 depicts the number of shares and the relevant restriction period for each tranche.

On March 1, 2000, the IPO of 6,210,000 shares of HRN class A common stock closed at \$26.25 per share.

Litman and Diener retained Mark L. Mitchell, CFA, ASA, at the time a principal with Business Valuation Services, Inc. (BVS), to determine the appropriate discount for lack of marketability applicable to the HRN restricted common stock, as of February 24, 2000 (the “Mitchell Valuation”). Mitchell opined that the discounts for lack marketability to be applied to the \$16.00 market price of the HRN stock, as of February 24, 2000, were: (1) Tranche 1—49.5 percent, (2) Tranche 2—61.5 percent, (3) Tranche 3—63.5 percent, and (4) Tranche 4—79.0 percent. The weighted average discount for lack of marketability was 71.6 percent.

On their 2000 personal income tax returns, the Litmans and the Dieners reported that the 9,999,900 shares of HRN restricted stock had an average weighted value of \$4.54 per share, the same value reported in the Mitchell Valuation. The Litmans and the Dieners arrived at this value by applying the Mitchell Valuation discounts for each restriction period to the \$16.00 IPO price.

In contrast, on its 2000 income tax return, HRN reported that the shares of restricted stock had a value of \$16.00 per share. This figure was HRN’s predicate for taking a goodwill amortization deduction. After the issue of the inconsistent values was brought to their attention, HRN engaged Deloitte & Touche to perform a valuation of the shares. In its report (the “Deloitte & Touche Valuation”), Deloitte & Touche opined that the weighted average discount for lack of marketability applicable to the HRN restricted stock was 33 percent.

The 2000 HRN income tax return was never amended to reflect a lower value based on the Deloitte & Touche Valuation. Each of the 2001, 2002, and 2003 HRN income tax returns, however, took positions with regard to the

9,999,900 shares of stock based on the Deloitte & Touche Valuation.

The Service filed Notices of Deficiency against the Litmans, the Dieners, and Hotels.com² claiming that the parties whipsawed the Service, creating “a tax gap of approximately \$115 million.” The Service sought over \$25 million in income tax and over \$5 million in penalties from the Litmans and the Dieners. And, the Service determined that Hotels.com owed an additional \$2.8 million in increased tax and \$0.5 million in penalties.

The Litmans, the Dieners, and Hotels.com paid the taxes pursuant to the Notices of Deficiency and filed complaints in the Court of Claims, alleging they were entitled to refunds of the increased taxes and penalties. The cases were consolidated and tried in the Claims Court.

POSITIONS OF THE VALUATION EXPERTS

Litman’s Valuation Expert—Mark Mitchell

At trial, the Litmans and the Dieners relied on the Mitchell Valuation and the associated discounts for lack of marketability. Mitchell is a senior member of the American Society of Appraisers and a member of the Institute of Chartered Financial Analysts. As of the date of the trial, Mitchell was associated with Clothier & Head, P.S.

Mitchell stated that he considered all the factors listed in Revenue Ruling 59-60 and concluded that the key “drivers” of the discount for lack of marketability were (1) the “nature of the restrictions” and (2) the “risk of the underlying securities.” According to Mitchell, (1) the longer the restriction period, the greater the discount that is required and (2) as risk associated with owning the underlying security increased, the greater the discount is going to be. He attributed this increase in the discount for lack of marketability to the “opportunity cost” associated with owning a volatile restricted asset.

Further, Mitchell noted two primary differences between typical restricted shares and the HRN restricted stock received by Litman and Diener. First, the Litman and Diener shares could not be resold in a private placement

Table 1
Summary of HRN Stock Contractual Restrictions

Tranche	Restriction Period	Number of Shares	% of Total Shares
Tranche 1	One year	1,959,960	19.6%
Tranche 2	Two years	489,990	4.9%
Tranche 3	Three years	489,990	4.9%
Tranche 4	Four years	<u>7,059,960</u>	<u>70.6%</u>
Total		<u>9,999,900</u>	<u>100.0%</u>

so that element of marketability is eliminated from the subject shares relative to typical restricted stock. Second, the length of the restriction period for the majority of the HRN restricted stock, almost 7,000,000 shares, was subject to contractual resale restrictions lasting four years, as opposed to a typical private placement restriction period of only two years.

It was Mitchell's assessment that, because the block of 9,999,900 restricted shares was larger than the public float—that is, approximately 6,000,000 shares—the ability of the HRN restricted stock holders to resell their stock was negatively affected.

The “frenzy over internet stocks,” which has since become known as the “dot-com bubble,” also increased Mitchell's discount for lack of marketability for the HRN restricted stock. At least one statistic noted by Mitchell was that the return on public equity in the internet sector had been over 1,000 percent in roughly a two-year period prior to the first quarter of 2000.

Mitchell applied two quantitative methods to directly calculate the discounts for lack of marketability using theoretical models—(1) the Black-Scholes option pricing model and (2) the capital asset pricing model. He also relied on empirical studies that examined real-world transactions of restricted stock, specifically (1) a study performed by Michael Hertz and Richard L. Smith and (2) a study performed by William L. Silber.

Black-Scholes Option Pricing Model

Of the six inputs in the Black-Scholes option pricing model, Mitchell estimated (1) the volatility of the underlying asset and (2) the time to expiration. Due to the absence of any trading history for HRN stock, he elected to base the volatility estimate in part on (1) data for nine companies operating in the Internet retail or Internet content industry and (2) the 100 percent volatility estimate that HRN used in their S-1 filing with the Securities and Exchange Commission.

In determining the time-to-expiration of the restrictions variable, Mitchell considered two factors: (1) the contractual restrictions imposed by the amended purchase agreement and (2) the size of the block of shares being sold pursuant to Rule 144. Based on these factors, Mitchell estimated holding periods that were greater than the contractual restrictions.

Capital Asset Pricing Model

Mitchell also used the capital asset pricing model (CAPM) to determine the discount for lack of marketability. According to Mitchell, CAPM can be used to understand the risk and the incremental return associated with the risk of not being able to sell the restricted security.

To estimate (1) the expected return on the market portfolio and (2) the estimated systematic risk for the mar-

ket, Mitchell relied on historical data published in *Stocks, Bonds, Bills, and Inflation* by Ibbotson Associates. Mitchell used the same volatility measurement of 100 percent that was used in the Black-Scholes model. And, for beta, Mitchell used a value of one based on data on the lodging segment from Ibbotson Associates' *Cost of Capital Quarterly 1999 Yearbook*.

Empirical Studies

Mitchell examined a number of empirical studies to “gauge whether the discount should be relatively higher or lower.” While Mitchell summarized and considered the findings of the most recognized restricted stock studies, he focused on regression analyses based on (1) a study published in *The Journal of Finance* in 1993 by Michael Hertz and Richard L. Smith titled “Market Discounts and Shareholder Gains for Placing Equity Privately” (the “Hertz and Smith Study”) and (2) a study completed by William L. Silber, published in the *Financial Analysts Journal* in 1991, titled “Discounts on Restricted Stock: The Impact of Illiquidity on Stock Prices” (the “Silber Study”).

Mitchell DLOM Conclusion

In concluding the appropriate discounts for lack of marketability, Mitchell relied on the Black-Scholes option pricing model and the CAPM. He relied on these quantitative methodologies, in part, because “of the unusual nature of the restrictions.” And, Mitchell gave significant weight to the fact that “the restriction periods are longer than those for the transactions in either the Hertz and Smith Study or the Silber Study. Table 2 summarizes (1) the discounts for lack of marketability concluded by each of the Mitchell analyses and (2) his overall discount for lack of marketability conclusion.

Based on (1) an unrestricted share price of \$16.00 and (2) the concluded 71.6 percent discount for lack of marketability, Mitchell opined that the fair market value of the subject HRN restricted stock was \$4.54 per share.

Service Valuation Expert—Francis X. Burns

The Service relied on the valuation of its expert, Francis X. Burns, ASA, a vice president of CRA International (CRA). Burns, like Mitchell, is a senior appraiser with the American Society of Appraisers. Burns set the fair market value of the unrestricted HRN stock, the starting point for his valuation, at \$16.00 per share. His opinion was based on (1) the agreement between HRN and the underwriters that established the IPO price and (2) the HRN prospectus, and (3) historical pricing data from Bloomberg financials services. According to Burns, the best indication of value on February 24, 2000, was the transaction between the underwriter and the issuing company.

Table 2
Summary of the Mark Mitchell DLOM Analysis

Restriction Period	Black-Scholes	CAPM	Hertzel & Smith	Silber	Overall DLOM Conclusion
One year	51.6%	47.2%	34.9%	31.3%	49.5%
Two years	60.8%	61.6%	47.5%	43.0%	61.5%
Three years	62.9%	64.5%	50.3%	45.7%	63.5%
Four years	75.0%	82.7%	69.3%	64.3%	79.0%
Average	<u>69.1%</u>	<u>73.8%</u>	<u>60.6%</u>	<u>55.9%</u>	<u>71.6%</u>

Burns examined three restricted stock studies, (1) the SEC Institutional Investor Study (the “SEC Study”), which was a report issued to Congress in March 1971, (2) a study conducted by Management Planning, Inc. (the “MPI Study”), which analyzed private placement transactions between 1980 and 1995, and (3) a study prepared by Bruce Johnson, which was published in 1999 in *Business Valuation Update* (the “Johnson Study”). The three studies examined stocks that were restricted for two years pursuant to SEC rules.

Based on these three studies, Burns concluded that the appropriate range of price discounts was between 16 percent and 22 percent. Because the restrictions period in the studies was only two years, compared to the one-to-four year restrictions on the 9,999,900 shares of HRN restricted stock, Burns added a 4.3 percent “differential” to both sides of the range. The calculated DLOM range for the empirical studies was from 20 percent to 26 percent.

Burns also used a put-option methodology to value the shares, which he developed in response to the option methodologies of Mitchell and other valuation opinions that had been given in the case. Burns’s method used an option collar taking into account both a put option and call option. This method, he opined, “took into account not only the cost of the put [but also] what you could receive if you sold a call option.”

The Burns analysis took into account four years of theoretical borrowing costs associated with creating an option collar, which was adjusted to present value as of the valuation date. Burns also included a 7.5 percent key person discount in his put-option analysis.

Using (1) his collar option approach and (2) the three empirical studies that he examined, it was Burns’s ultimate opinion that a 20.3 percent weighted average discount for lack of marketability was appropriate for the shares of HRN restricted stock.

Based on (1) an unrestricted share price of \$16.00 and (2) the concluded 20.3 percent discount for lack of marketability, Burns opined that the fair market value of the subject HRN restricted stock was \$12.75 per share.

Hotels.com Valuation Expert—Dr. Mukesh Bajaj

Hotels.com relied on the valuation of its expert, Dr. Mukesh Bajaj, senior managing director at LECG, LLC (LECG). Unlike the two other valuation experts, Bajaj insisted that the fair market value of the HRN unrestricted stock on February 24, 2000, was not \$16.00 per share. He contended (1) that the transaction between HRN and the underwriters, which set the IPO price at \$16.00 per share, cannot fit within the definition of fair market value and (2) that a base price between \$23.00 and \$26.00 was appropriate.

Bajaj relied on the restricted stock method to reach his discount for lack of marketability conclusions. According to Bajaj, “the empirical evidence generally shows that on average, discounts have been in the early years about 30, 35 percent range, and starting [in the] 1990s, most of the studies find average discount of the order of 20 percent.”

Bajaj based his analysis on a study he co-authored with David Dennis, Stephen P. Ferris, and Atulya Sarin in 2001. The article, titled “Firm Value and Marketability Discounts” appeared in the Fall 2001 edition of *Journal of Corporation Law* (the “Bajaj Study”). As a validity check, Bajaj also used statistical data from FMV Opinions, Inc. (the “FMV data”).

In applying the restricted stock method, Bajaj considered three factors. First, he took into account a measure of financial health of a company called a Z-Score, which he defined as “a weighted average of several financial ratios that measure liquidity and credit worthiness.”

Second, Bajaj considered the market capitalization of the firms in the sample, “because it’s well established that on average, other things being equal, smaller firm securities are harder to appraise, and are associated with larger discounts.”

Third, Bajaj considered “the size of the block relative to the total shares outstanding.”

Based on (1) his analysis of the Bajaj Study and the FMV data and (2) the length of the restrictions of the HRN stock, Bajaj concluded a discount for lack of marketability of 20 percent.

Based on (1) an unrestricted share price of \$23.00 and (2) the concluded 20.0 percent discount for lack of marketability, Bajaj opined that the fair market value of the subject HRN restricted stock was \$18.40 per share.

THE CLAIMS COURT DECISION

The Service, the Litmans, and the Dieners argued in favor of a \$16.00 per share price for the unrestricted shares of HRN stock. Hotels.com and its valuation expert Bajaj, disagreed and argued for a \$23.00 per share price.

Mitchell and Burns testified that a valuation expert should not include events that were not reasonably foreseeable on the valuation date in determining the fair market value of a stock. Bajaj took the position that it was foreseeable that the shares would be worth 50 percent more following the IPO.

Although Mitchell and Burns had not valued an IPO until their work in connection with this case, their experience in valuing stock impressed the Claims Court. While the Claims Court found that Bajaj has a deep academic and scholarly knowledge of how IPOs operate, his embrace of future events, or post-facto analysis, did not impress the Claims Court.

The Claims Court ruled it would be pure hindsight for the Claims Court to find that the stock price would rise above the IPO price. Because the valuation date is February 24, 2000, the Claim's Court stated that it must limit itself to what was known on that date. Given that Hotels.com itself valued the unrestricted stock at \$16 per share in its claim for refund, for IPO purposes, and in the Prospectus, which is fortified by the testimony of the Burns and Mitchell, the Claim's Court concluded that the February 24, 2000, value of an unrestricted share of HRN stock was \$16.00.

Of the three valuation experts, the Claims Court found Mitchell's methodology of determining a discount for lack of marketability to carry the most weight. Both Bajaj and Burns provided the court with valuable expert testimony, but Mitchell's analysis best withstood the attacks of his counterparts and opposing counsel. Mitchell's method had its own weaknesses, however, and the Claims Courts discount for lack of marketability of the HRN restricted stock was adjusted accordingly.

First, the Claims Court considered Mitchell's use of published empirical studies—especially the Hertz and Smith Study and the Silber Study—notwithstanding the aged data in the Silber Study, to be the appropriate method. Although Mitchell did not rely on these studies and, indeed, discussed the flaws inherent in each study, his consideration of their methodology supported his opinion that a wide range of appropriate discounts for lack marketability can be supported. Also, these studies reinforced the concept that one of the components driving the determination of a discount

for lack of marketability is a quantifiable risk associated with purchasing a restricted stock.

In contrast, the studies considered by Burns—(1) the SEC Study, (2) the MPI Study, and (3) the Johnson Study—primarily examined the differences in discounts for lack of marketability by comparing the HRN earnings and revenue to each study's data. While the Claim's Court recognized that earnings and revenues are two factors that should be considered in determining the discount for lack of marketability, the Claims Court noted that those factors alone should not dictate the result. In addition, the Claims Court criticized Burns for using the published averages of the studies without taking into account the underlying data points.

The discount for lack of marketability determined by Bajaj was based entirely on his restricted stock method, which compared the results of the Bajaj Study, the FMV Data, and the available data on HRN to estimate the appropriate discount. According to the Claims Court, this methodology, however, did not take into account the substantial restrictions imposed on the HRN restricted stock.

For example, the stocks in the Bajaj Study and the FMV Data (1) could be sold into private placements, (2) could be collared, and (3) were not subjected to SEC Rule 144 trade-volume restrictions. In contrast, the HRN restricted stock (1) could not be sold into private placements, (2) could not be collared easily, and (3) was subject to SEC Rule 144 trade-volume restrictions.

The Claims Court was "flummoxed" by the Bajaj testimony that he took into account all the differences between the stock in his studies and the HRN restricted stock. The evidence presented at trial convinced the Claims Court that the HRN restricted stock was subject to substantial restrictions that were more severe than the restrictions imposed on the stock of the companies Bajaj examined.

The most significant disagreement between the valuation experts, however, concerned the option pricing methodology relied on by Mitchell, which he calculated using the Black-Scholes option pricing model. Mitchell's option pricing model determined the value of the option—the right to buy or sell a security at a specified price with the right to do so having a specific duration. The value of the option is primarily related to two factors: (1) the risk of the security and (2) the time period before expiration. Burns argued that this model was "one-sided," taking only account of "the downside risk and trying to insure against that with a put option."

Burns would rectify the problems he identified with Mitchell's method by using an option collar. This method "takes into account not only the cost of the put [but also] what you could receive if you sold a call option." Bajaj agreed "in principle" with Burns's collar approach to determine a discount for lack of marketability, although he did not utilize a similar analysis.

This case was the first occasion for Burns to use this method. Although Burns repeatedly emphasized that his methodology was hypothetical, his analysis depended on assuming a number of real-world factors. The Claims Court criticized the option collar approach because “the collar relies on real-world variables, it cannot be considered purely theoretical.”

According to the Claims Court, “the size of the HRN restricted stock, as compared to the public float, [would] render such a transaction impossible as a practical matter. Although the Claims Court commended the theoretical merit of Burns’s position it found that the methodology is not wholly theoretical, as it relies on real costs that have been shown not to be achievable.

According to the Claims Court, the most persuasive real-world factor supporting Mitchell’s option-pricing methodology was the fact that a valuation analyst for the Service used an option-discount methodology in a memorandum to an agent for the Service, as did Deloitte & Touche in its valuation. These valuations supported the finding that Mitchell’s opinion was the product of an accepted method within the appraisal community for valuing restricted shares.

Although the Claims Court generally approved of Mitchell’s approach, the Claims Court identified weaknesses in his analysis. For example, Mitchell elected to apply 100 percent volatility for all four holding periods, which is supportable by the figures provided by HRN in the prospectus. However, Mitchell considered the volatility of comparable companies only over a 52-week period, as opposed to a longer period. Furthermore, Mitchell admitted that he had to make some “simplifying assumptions” and that, if he had used “a slightly more defined methodology, you might get a higher put value.”

More generally, Mitchell’s analysis failed to consider specific items. First, he did not take into account the fact that the restrictions could lift early, nor did he consider the possible value of tag-along rights. Even though it was not foreseeable that the Litmans and the Dieners would have the opportunity to exercise these options, the Claims Court

concluded that the possibility of these opportunities, as negotiated in the contract, should have been considered.

In order to account for the perceived weaknesses in Mitchell’s analysis, as discussed above, the Claims Court subtracted 25 percent from the lower range of his discounts for lack of marketability to reach the DLOM conclusions provided in Table 3.

Based on (1) an unrestricted share price of \$16.00 and (2) the concluded 43.2 percent discount for lack of marketability, the Claims Court held that the fair market value of the subject HRN restricted stock was \$9.08 per share.

SUMMARY AND CONCLUSION

While the Claims Court held that the value of the restricted stock was understated by \$45 million, the resulting 43.2 percent discount for lack of marketability was actually favorable to the Litmans and the Dieners. However, it should be recognized that this DLOM conclusion was based on several factors including (1) the specific facts and circumstances of the subject case, (2) the Claims Court’s interpretation of the expert’s testimony at trial, and (3) the litigation strategy of the litigants.

This discussion provides a brief summary of the Claims Court discussion of the analyses performed by the three valuation experts which is contained in the 91-page *Litman* decision. Therefore, reading the published judicial decision would be beneficial to valuation analysts and others who are interested in the valuation of restricted stock. And, because the methods used to value restricted stock are also applicable to the valuation of closed held stock, the *Litman* decision is useful to all valuation analysts.

Notes:

1. *Litman v. U.S.*, 78 Fed.Cl. 90 (2007).
2. In 2002, HRN changed its name to Hotels.com, Inc., and Subsidiaries (“Hotels.com”).

Trey Stevens is our Washington, D.C., area office director. Trey can be reached at (703) 235-4621 or tstevens@willamette.com.

Table 3
Summary of Discount Conclusions

Restriction Period	Litman & Deiner	Hotels.com	Internal Revenue Service	Court Decision
One year	49.5%	20.0%	16.9%	22.0%
Two years	61.5%	20.0%	20.9%	36.0%
Three years	63.5%	20.0%	21.2%	38.0%
Four years	79.0%	20.0%	21.2%	50.0%
Average	71.6%	20.0%	20.3%	43.2%