

BVR's Guide to Discounts for Lack of Marketability

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Valuation Discounts are Linked to Capital Markets

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In my article "Estate Freeze Rules Affect Partnership Valuation Discounts," which appeared in *Taxation for Lawyers*, Jan. / Feb. 1997, an important point was mentioned that applies essentially throughout market cycles—that investors shy away during bear markets and thus increase the implied liquidity discount more heavily for restricted securities and marketable securities of small companies, and conversely, investors tend to speculate during bull markets, and discounts tend to evaporate. And market cycles also impact levels of control premiums. The point is that as analysts gather capital market data to apply in their valuations, they are wise to appreciate that volatile markets yield volatile levels of discounts and steer away from applying discounts that are not representative of the applicable facts and circumstances.

Liquidity discounts vary over market cycles

This observation is consistent with studies conducted by Ashok Abbott, Associate Professor of Finance at West Virginia University. Ashok recently spoke at the ASA/CICBV Joint Business Valuation Conference in Toronto and presented important findings:

- "There are significant differences between publicly traded firms of different sizes
- Among the smaller stocks, 24% do not trade at all on a given day
- The observed bid ask spread is around 14%
- The measured cost of trading for small lots for smaller firms is around 10%
- Largest firms are much more liquid, have lower spreads and are less costly to trade."

Ashok Abbott studied capital markets over the period 1993 to 2004 (data prior to 1992 was found to contain certain errors) with focus on the half-liquidation periods in months of small and large capitalization stocks. Abbott noted "the definition of large and small stocks changes over time," and that "the December 2005 distributions indicated large capitalization stocks had a mean capitalization of about \$21 billion in size, and range of \$4 billion to \$375 billion, and small capitalization stocks had a mean capitalization of \$18 million in size, with range up to \$33 million."

He found noticeable differences (in half-liquidation months) between large and small capitalization stocks. From the exhibits provided by Abbott at the Toronto Conference, one may observe that large cap stocks were less sensitive to market cycles in comparison to stocks of smaller capitalizations, such as during the 1999 NASDAQ mania and subsequent 2001-2002 market correction, while small cap stocks exhibited significant volatility. Abbott's Toronto conference exhibit labeled "Half Liquidation Period in Months" illustrated how liquidity (measured in half-liquidation months) varies over market cycles- with liquidation time tripling during panic/bear market phases versus bull market phases. According to Abbott "while the swings in liquidation periods are extreme for smaller stocks, liquidity for larger stocks also responds to market conditions. It is a function of scale." Abbott also documented that there are two elements—lack of marketability and lack of liquidity, each playing a role in the value of non-marketable securities. The combined impact of these issues can drive discounts in excess of 40% and more, depending on the facts and circumstances.

As mentioned in my 1997 article, investor sentiment for small public securities and restricted stocks follows the same theme—"when stocks and bonds start to fall, buyers start to evaporate more quickly than for the restricted stock's publicly traded counterpart." Thus, when researching restricted stock studies, deceiving trends should be considered, such as lowering discounts for lack of marketability/liquidity as such lower discount are fueled by investor speculation during bull market manias. Investors are wise to avoid paying up for prices during phases of overbought conditions that create a mirage of liquidity. Similarly, investors can only hope they are not pressed into selling securities during oversold conditions when liquidity discounts expand to panic driven extreme levels.

Take note of market cycles

At the time of this writing (October 2006), the Dow Jones has recently passed the 12,000 level, and historic records are being broken. While stock markets appear buoyant, risk premiums and investor complacency about risk hover at near historic lows. Hedge funds proliferate. Monetary expansion has succeeded temporarily at fooling investors that economic fundamentals are genuine, even while interest rates have been raised. Its critical at this time that valuation consultants are grounded in reality, which requires a healthy appreciation of history and market cycles.

The current euphoric mood in the capital markets is documented by Morgan Stanley Economist, Stephen S. Roach, in his October 5, 2006 report on "Global Stability and Imbalances", where he writes "With a record US current account deficit still holding at 6.6% of US GDP in mid-2006 and with the price differential between risky fixed-income assets (i.e., corporate credit and emerging market debt) and riskless assets (i.e., sovereign bonds) at historical lows, this is hardly a time for complacency. Overly accommodative central banks have pushed the global liquidity cycle to excess—in effect, funding the resilience of the global financial system with cheap money. With central banks now seeking to normalize monetary policies, that excess liquidity will get withdrawn—posing a much more challenging climate for world financial markets and the global economy. A turn in the global liquidity cycle is precisely the time when we should be worrying the most. Are market participants assessing the risks in financial markets adequately, or are they lulling themselves into a false sense of security?...But I am worried that yield-seeking investors have become indiscriminate in their appetite for yield and assessment of risk—not differentiating the secure investments from the weak ones in riskier asset classes and, as a result, lulling themselves into a false sense of security.... What are the biggest risks to global financial market stability? The growing drumbeat of protectionism is, by far, the biggest risk. Economic nationalism is on the rise in Europe, and China-bashing is in full swing in Washington." Mr. Roach's view illustrates the likelihood that capital markets are due for a re-pricing of risk.

From data by Crestmont Research and Ed Easterling, John Mauldin wrote in his recent article "That Permanently High Plateau", by: John Mauldin, Millennium Wave Advisors, October 22, 2006. "What we find is that markets go from high valuations to low valuations back to high valuations. Looking over the cycles of the last century, we find that this process is repeated time and again. The full cycle can last as long as 40 years or as short as 8. You can have powerful bull and bear markets (in terms of price) within these long term secular valuation cycles. But you always go from high to low to high valuations. There has never been a time when valuations go to some mid-point and then turn around to make new highs or lows. You can see the actual cycles at <http://www.crestmontresearch.com/pdfs/Stock%20Secular%20Chart.pdf>.

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“For instance, starting in 1929 and going forward for 50 years, you would have averaged 2% after inflation and taxes. Not what you need for a happy retirement. But if you start in 1950 and go forward for 50 years, you get 7% after inflation and taxes. Now that is a good return. What is the difference? Valuations. What the chart shows is that your long term returns heavily depend on the valuation of the market at the time you invest. Unless things are different this time, we should expect to see lower P/E valuations (Price to Earnings) in the future. Now this can happen in one of two ways. Either earnings increase as the market stays flat, or the market drops, or a combination of both. You can go to the S&P website and look at the earnings for the S&P 500, both historic and projected. Going back ten years to the second quarter of 1996, we have seen reported earnings rise from \$9.26 to \$20.11, which is a little more than double. That is roughly 7% compound earnings. The S&P at that time was 670, a little less than half of where it is today.

I fully expect earnings for the S&P 500 to double over the next 10-12 years. That is in the 6-7% compound return range and is in line with historic growth over the last century... What are valuations at today? On the tables in the link above, the trailing 12 month core P/E as of June 30 was 18. The market is up 5% since that time, but earnings are rising as well, so the core P/E will probably be in that range as well when all the numbers for the third quarter are in. 18 is at the upper end of the historic P/E range. 12 month forward P/E ratios are in the 16 range.”

All time low risk premiums

With risk premiums at or near all time lows, the recent capital markets are at an extreme, which infers a shift is approaching where risk will be repriced teaching investors another lesson about euphorias. As written in “Using Options to Take Risk-Free Bets”, September 3, 2006, by Eli Hoffman, “Historically, implied volatility has averaged 20%; presently, we hover around 12% — a 40% discount. Yet actual volatility has been creeping up; just when things are getting risky, risk is being massively underpriced... Today there is basically no risk premium. Market outlook: Investors are thinking too short-term, causing them to overlook

The Most Frightening Chart in the Market Right Now, by Jeff Clark, 10/31/06.



the broader picture...The current 15 times P/E index multiple is not cheap; it is historically average. In 1982, 1974 and 1942, we were at seven times earnings. In the bear market of 2001-2002, investors got burned so badly that they began reassessing stocks as an investment... Usually this kind of risk underpricing tells you people are positioned without much hedging and are overleveraged to the upside. What drives the stock market and the economy the most is the 10-year bond, because that's what mortgages, big-ticket items, and major corporate loans are tied to; if it starts to go the wrong way, there could be an unwinding. The two most mispriced assets right now are options, which are underpriced, and bonds, which are overpriced... The VIX, or volatility index, also known as the "fear index," is presently at all-time lows... This lack of fear... is reason for concern...With the low VIX.. funds are overleveraged and underhedged at a time when liquidity is drying up. Paraphrasing former Fed chairman Alan Greenspan, he says, "the aftermaths of periods of low-risk premiums are usually not very good."

As written in "Beware of the 'Bubbleonians'", by Bill Fleckenstein, October 2, 2006, "There will be no bailing out the housing bubble that bailed out the equity bubble. There's no way that the flagrant disregard for risk on the part of folks chasing stocks can end in anything other than tears for this temporary rebirth of Bubbleonian mentality."

Control premiums and the recent NASDAQ tech bubble

During the tech bubble that culminated in NASDAQ 5000 and a subsequent crash, thoughtless upward momentum vaulted publicly traded stocks to levels above any form of fundamental or intrinsic value. When many of these dot.coms bubble companies were sold, they were sold for other bubble company shares; and during this mania, negative control premiums weren't abnormal for cash for stock transactions. Furthermore, forecasts that would justify such nose-bleed prices were full of unrealistic growth assumptions. In deed, a "new era" was becoming the assumption of many investors. Subsequently, these same investors found out that trees truly don't grow to the sky, as tech stocks crashed some 80% in price.

As mentioned in the below article, as investors bid prices to the stratosphere in this bubble, control premiums have been observed to diminish or evaporate, or become negative. The theme makes sense, as fundamental or intrinsic value eventually gives way to investor complacency, and bear markets eventually ensue. "Trees don't grow to the sky" really means something and is simple but powerful wisdom worth remembering.

Secondary market for limited partnerships

An invaluable resource can be found in the material provided by Spencer Jefferies, Founder and publisher of Partnership Profiles (Dallas, TX), the leading providing of analysis and commentary in the limited partnership industry. The company publishes an industry newsletter six times a year as well as an annual limited partnership discount study. To learn more about Partnership Profiles, visit partnershipprofiles.com

For instance, its Executive Summary Report on Partnership Re-Sale Discounts is a 20-page report that provides a detailed analysis of the current state of price-to-value discounts based on the prices at which minority interests in real estate partnerships traded in the secondary market, together with a historical look at discounts. This summary reports price-to-value discounts for each partnership included in the survey as well as average price-to-value discounts for the entire group of partnerships and based upon five categories including: (i)

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Equity—Distributing (low to no debt); (ii) Equity—Distributing (moderate to high debt); (iii) Equity—Non-Distributing; (iv) Undeveloped Land; and (v) Triple-Net-Lease.

Partnership Profiles Minority Interest Discount Database is an interactive database, which is accessible via the Partnership Profiles website for a period of one year from time of purchase, and provides access to valuable market data compiled from 1994 to 2005 in connection with Partnership Profiles' annual Partnership Re-Sale Discount Surveys. This service includes an interface enabling appraisers to quickly access market data on more than 300 real estate partnerships and permits the selection of attributes that are most comparable to the FLP or other minority interest being valued; the database will locate and display those partnerships that match the input criteria.

Data from these periodic studies confirms that investors prefer distributions, stability, diversification while it also demonstrates that investors disfavor leverage, volatility and lack of distributions and lack of diversification. These observations are consistent with themes observed in the *Mandelbaum* case as well as key inputs considered in Mercer's QMDM model.

FLP court case observations

"The Care and Feeding of Family Limited Partnerships", by James R. Robinson, 2005 Tax Analyst, offers a particularly eloquent summary on FLPs:

"Of all the techniques commonly used by estate planners, perhaps none is more subject to IRS scrutiny and challenge than the family limited partnership (FLP). Over the years, the IRS has attacked the FLP using a variety of arguments, all intended to "look through" the partnership to tax the full value of the underlying assets: that FLPs lack economic substance (or a valid nontax business purpose); that one or another of the special valuation rules of chapter 14 applies to the formation or existence of FLPs; that the "string" provisions of section 2036 apply to a retained partnership interest held by the principal contributing partner; that the formation of an FLP in and of itself constitutes a taxable gift; and that the valuation discounts claimed by taxpayers for FLP interests are not supportable by economic analysis."

"One conclusion that can be drawn from the recent cases is that the courts now are likely to pay closer attention to the business (that is, nontax) purposes of the partnership. In *Stone*, for example, the partnerships at issue were formed to resolve a serious and costly family dispute by segregating ownership of family business assets among the *Stone* children. In *Kimbell*, the court quoted at length the recitations in the partnership agreement regarding business purpose. It also cited several cases, including *Stone*, involving partnerships formed for bona fide business purposes, before concluding that the decedent had received adequate and full consideration for the assets she had transferred to the partnership and thus the partnership assets were not includable in her estate under section 2036. In evaluating the bona fides of the transaction, the court gave weight to the fact that *Kimbell* had transferred to the partnership working oil and gas interests that required active management and involved liability issues best minimized by use of a partnership. Likewise, the *Bongard* court paid particular attention to the ostensible motivating factor behind the creation of the family limited liability company whose existence was respected for estate tax purposes, namely the need to attract outside investment."

"The FLP continues to be a valid and useful planning strategy. However, the recent case law in light of the ongoing IRS assault against the FLP highlights the need for caution. The practitioner is well served to advise (his/her) clients of the necessity to have valid nontax

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reasons for the partnership's existence, and to operate the partnership accordingly. Also, a conservative approach is recommended regarding the participation of the principal contributing partner in the management of the partnership. Pending further developments in the courts, the matriarch or patriarch should turn over active management of the partnership to others. Finally, the practitioner and the family should be cognizant of the potential income tax consequences of partnership operations and distributions. "

With recognition that business purpose is a vital ingredient to a viable partnership, several noteworthy purposes were cited in "Charitable Gifts of Family Limited Partnership Interests", 2006, Endowment Development Services.

"Why People Use FLPs- People who employ FLPs in their planning are usually trying to accomplish one or more of the following objectives:

- protection of assets from creditors
- conservation and transfer of family wealth
- minimization of gift and estate taxes on wealth transfer to younger family members
- provision for successor ownership of a family business
- splitting of income and capital gains among family members in order to keep such income in lower tax brackets."

Evolving views on merger and acquisition activity and implied premiums

The profession has witnessed a continual evolution in thoughts about whether a control premium is applicable when using the comparable guideline method (public comparables). The continuum of valuation ownership has broadened to differentiate strategic (industry players) from financial buyers. We have come to appreciate that financial buyers can become strategic in nature as they amass significant positions in sectors and gain share and influence.

Statement of Financial Accounting Standards (SFAS) No. 157 has illuminated the view that value definitions (fair market value, fair value, present fair saleable value, liquidation) mirror that which potential buyers would consider, rather than a specific buyer (investment value) view, and that market participants risk adjust discount rates to consider market risk (systematic risk) while they view unsystematic risk as diversifiable. Academic and market practitioners have refined their views to assert that sectors can be more important than country factors when assessing risk. Joint ventures are a favorite means to expand into developed countries. Multinationals illustrate modern portfolio theory and the efficient frontier on a global scale.

Classic themes concerning lack of liquidity and marketability

In general, a number of conclusions can be drawn from restricted stock studies:

- The larger the revenue or earnings of a company, the lower the discount
- The stronger the growth of the company, the lower the discount
- The more stable the earnings, the lower the discount
- The smaller the trading block to overall volume, the lower the discount
- The lower the price volatility in the publicly traded counterpart, the lower the discount on the restricted stock side

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Key considerations in estimating a DLOM include

- Internal Revenue Service Ruling 77-287
- Various studies on DLOMs observed from restricted stock studies and studies on private transactions prior to public offering, and SEC Rule 144
- Factors as delineated in the case of *Bernard Mandelbaum, et al. versus Commissioner*, T.C. Memo 1995-255 (the "Mandelbaum Factors")

Revenue Ruling 77-287, Restricted Stock Studies & Rule 144

Internal Revenue Service Ruling 77-287 states, "The discount from the market price provides the main incentive for a potential buyer to acquire restricted securities." This mirrors that observations found in the secondary market for limited partnership interests, where investors, expecting a total return which exceeds publicly traded securities, due to the non-liquid and non-marketable nature of such investments, will require a discount from the freely traded value to entice them to acquire the interest; this discount is larger when the investment has no expectation of periodic dividends.

In 1990, the SEC removed the requirement that all transactions in restricted stock be registered. The resulting Rule 144A permits qualified investors to trade unregistered securities without filing registration statements. Restricted stock studies since 1990 show lower discounts than did prior studies. In 1997 the SEC reduced the required holding period for restricted securities from two years to one. Restricted stock studies were observed to show lower discounts under the new one year Rule 144; discounts of 13.0 to 21.0% for instance (see below chart). Its not surprising that observed restricted stock discounts, which had been observed to have medians of around 35% associated with 2 year holding periods, suddenly halved in size, corresponding to the change to a 1 year time frame. The 2 year studies are more applicable than the 1 year studies when it comes to closely held shares that have no outlook for a ready market. Its also important to reiterate the points made above that valuation discounts and capital markets are linked, such that during bull markets, investors speculation behavior drives discounts lower.

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Summary of Restricted Stock Studies (a)			
Discounts for Lack of Marketability for Minority Interest			
Time Period	Study	Number of Transactions	Average Discount
1/66-6/69	SEC Institution Investor (b)	398	25.8%
1/68-12/70	Milton Gelman	89	33.0%
1/68-12/72	Robert Trout	60	33.5%
1/68-12/72	Robert Moroney	148	35.6%
1/69-12/73	Michael Maber	33	35.4%
10/78-6/82	SRC (median discount)	28	45.0%
1/81-12/88	William Silber	69	33.8%
1/79-4/92	FMV Opinions, Inc.	>100	23.0%
1/80-12/96	Management Planning, Inc.	53	27.1%
1/91-12/95	Bruce Johnson	70	20.0%
1/96-4/97	Columbia Financial Advisors	23	21.0%
5/97-12/98	Columbia Financial Advisors	15	13.0%
(a) Business Valuation Discounts and Premiums, Shannon P. Pratt; page 81. All discounts average except where noted.			
(b) The average was 32.6% for OTC companies required to file reports with the SEC.			

Mandelbaum

The case of *Bernard Mandelbaum, et al. versus Commissioner*, T.C. Memo 1995-255 (the "Mandelbaum Factors") is significant as Rev Ruling 59-60 is to closely held stock and as the Georgia Pacific factors are to royalty rates. The fundamental review of discount drivers, that is facilitated by a *Mandelbaum* analysis mirrors what a market participant would be expected to consider. Use of a *Mandelbaum* analysis provides quantitative and qualitative support for the DLOM position reached.

Ten *Mandelbaum* Factors were outlined by the court as considerations in ascertaining the DLOM. A listing of these factors and certain brief related comments follow:

1. The value of a similar corporation's public and private stock
 - In the event that a company has observable transactions between third parties that involve both their publicly traded stock and restricted shares, this point has important application.
 - If the subject shares do not have a publicly traded counterpart, review of restricted stock studies can serve as an important reference".
2. An analysis of the Company's financial statements
 - Financial statement analysis would include historical and projected trends in profitability, leverage, distributions, liquidity, and volatility of these and other measures.

3. The Company's dividend-paying capacity and payment history
 - Investors in non-marketable securities prefer distributions as they provide elements of capital recovery and capital gain.
4. The nature of the corporation, history, industry position, and economic outlook
 - Investors gravitate to positive results and shy away from risk.
5. Management
 - Intangibles such as management contribute to operational and financial success and help to ensure favorable returns.
6. Degree of control transferred
 - Control or related influence will typically be perceived as reducing risk.
7. Restrictions on transferability

Specific clauses that are viewed as unattractive and tend to increase discounts:

- Right of First Refusal—many limited partnership agreements provide that a limited partner can only sell and transfer an interest subject to first offering to sell that interest to the partnership or its partners. These provisions are onerous as they impair an interest's marketability by discouraging third party offers.
 - Transferee Restrictions- such as limits on transfer to "permitted transferees" reduce the universe of potential buyers and generally lengthen the time horizon to liquidate the investment.
8. Investor's holding period
 - Key is whether such holding period is discretionary or mandated. Restrictions on holding are clearly perceived as negative by investors. But for non-marketable securities, the loss of vital timing in being able to liquidate an investment can be regarded as a substantial negative to a prospective investor that is faced with an uncertain time horizon and outlook, including impacts of overall capital markets.
 9. The Company's redemption policy
 - Put rights or expectations of near term monetization events reduce the risk to an investor.
 10. Costs associated with a public offering of the stock
 - While public offerings are under the control of the corporation or majority owner, these provisions only relate to marketability. Even marketable securities can be impacted by severe liquidity discounts during bear markets (especially those related to small capitalization companies).

In summary, valuation discounts are linked to capital markets. And such capital markets are volatile and depending on the time period of study, observations may lean towards overly overbought (mania) or oversold (panic) levels which directly impact observable discounts. The analyst is wise to watch out for this as they gather data and apply it.

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