Jim Hitchner's Valuation Products and Services

VPS Q&A

A free Q & A periodical to promote education, build consensus and answer your questions in the financial valuation and litigation services industry.

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Email your question to: jhitchner@valuationproducts.com

NEW RISK PREMIUM DATA FROM MORNINGSTAR IBBOTSON

Question 1: Is there an inconsistency when using Ibbotson's supply side equity risk premium and the historical (non supply side) size premium when determining the cost of equity?

Answer 1: Jim Harrington, Director, Business Valuation Research, Morningstar, Inc. and Senior Editor, Ibbotson SBBI Valuation Yearbook has just sent me (as well as others) an advance copy of the Morningstar 2008 Ibbotson SBBI Supply Side Report to review and comment on. No, the report is not out yet. It should be available by early next year. This report discusses the use of the historical (traditional) equity risk premium, size premium and industry risk premium. It also, for the first time, presents data and explanations on supply side size premiums and supply side industry risk premiums. This is in addition to the already published supply side equity risk premium. They also show an example for both the Buildup Method and Modified CAPM.

This new data also allows the analyst to pick a supply side size premium for multiple time periods and for all 10 deciles including deciles 10a and 10b. Additional research and discussion is taking place at Morningstar on the use of this data and whether you should use all historical inputs, all supply side inputs or some combination. I see this new data set as a very useful tool, and I look forward to its publication.

Answer by: Jim Hitchner, CPA/ABV, ASA, Valuation Products and Services and Financial Valuation Advisors, Inc. (Atlanta, GA) jhitchner@valuationproducts.com.

PRE-IPO STUDIES AND DISCOUNTS FOR LACK OF MARKETABILITY

Question 2: Recently, there has been increased attention given to various models and databases for calculating discounts for lack of marketability (see editor's note below). Are the pre-IPO studies still relevant?

Answer 2: Quite simply, yes! The Valuation Advisors Pre-IPO database is the largest (by far) database of market based Lack of Marketability (DLOM) information available. The database contains over 3,700 transactions and is updated monthly (except when liquidity totally dries up and there are no IPO's, which has happened in the last few months for the first time in over 20 years). Further, the database can be searched and sorted by SIC or NAICS code, revenues, operating profit, assets, years and discount timeframe from 0-24 months. This allows the user to review a possible DLOM discount from several angles and provides the type of work paper support you should have in your files.

Part of the relevancy question is not the Pre-IPO studies usefulness, but simply the fact that Willamette, Emory and our firm aren't out there consistently trying to sell you on the usefulness of the data, since we know the data is useful. Further, Willamette chooses to keep its information proprietary and the Emory information has not been updated since 2000. For Valuation Advisors, we let our users tell us how useful they view the data. Our users have included prominent government agencies, the Big 4 accounting firms, investment banks, traditional banks, law firms, fraud and forensic firms, and many prominent valuation firms that license our database (through BVResources.com). We also have users in many different countries, including Russia, China, Canada, Mexico, Israel, Singapore and Britain to name a few. Therefore, BV practitioners are clearly finding our database useful in helping them determine their DLOM.

Like all databases, we sometimes come under attack from competitors or competing ideas on how to calculate DLOM. One of the most frequent arguments I hear is that our database has sampling bias because only successful IPOs are included. Well,

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lets think about that: if you had ten client companies and one went public and nine didn't, do you think the nine that didn't go public are more or less marketable than the one that did?

Pre-IPO studies are useful because they are based on market transactions, not the subjective inputs of users. Further, they are conceptually easy to understand. Lastly, they represent the financial choices of millions of investors who helped determine the IPO prices and the professionals, employees and venture capitalists who valued and purchased stock, options, or convertible preferred stock used to calculate the discounts in our database.

When considering the method you use to calculate your DLOM, think about the sample size you are using and whether the companies in your sample are truly representative of the company you are valuing. You can test our database online for free at www.bvresources.com

Answer by: Brian Pearson, CPA/ABV/PFS, ASA, Valuation Advisors, LLC, (Buffalo), creator of the Valuation Advisors Pre-IPO database. He is a past Chairman of the NYSSCPA Business Valuation committee, the present Chairman of the Consulting Task Force Oversight Committee and a member of the Chief Financial Officers, Business Valuation, and Finance committees. He is also a voting member, exam writer, and incoming chairman for the AICPA ABV exam writing committee. *bp@valuationpros.com.*

[Editor's note: Valuation Products and Services (VPS) presented a webinar on DLOM and illiquidity models and databases including: the Valuation Advisors Pre-IPO database, FMV Opinion's FMV Restricted Stock Study, Chris Mercer's Quantitative Marketability Discount Model (QMDM), Dr. Ashok Abbott's Liquidity Analysis, Mark Vianello's use of Dr. Francis Longstaff's Look Back Option Pricing Model, Dr. David Tabak's NERA CAPM-Based Approach to Calculating Illiquidity Discounts, Will Frazier's Nonmarketable Investment Company Evaluation (NICE) System, Dr. Mukesh Bajaj's restricted stock regression analysis and criticisms of restricted stock and pre-IPO studies. This webinar also addressed the responses to Dr. Bajaj's criticisms of those studies and can be purchased/downloaded at www.valuationproducts.com. Also, for a concise presentation of Dr. Bajaj's criticisms of both Pre-IPO and restricted stock studies and responses to those criticisms, see *Financial Valuation Applications and Models,* 2nd edition, Hitchner, et al., Wiley, 2006, pp. 375-379, 390-425.]

USING DUFF & PHELPS RISK PREMIUM DATA

Question 3: **Maybe I'm lacking some basic Duff & Phelps understanding; however, two of the inputs to the Risk Premium Analyzer used to extract information from the Duff & Phelps Risk Premium Report are the Market Value of Equity and Market Value of Invested Capital. If I'm using the Duff & Phelps data to calculate a business value, how could I possibly know the answer to these inputs? What am I missing?**

Answer 3: You are not lacking any understanding of the use of the Duff & Phelps (D&P) data. You are correct in that you have the classic chicken and egg scenario: What came first, the size premium or the size category. You do not know the value of the equity of the subject company and therefore you do not know the value of the invested capital (equity and carrying value of preferred stock and long-term debt (including current portion) and notes payable) either. As such, you don't know what size category the subject company goes in to. D&P has 25 size categories with the 25th category including the smallest companies and the 1st category including the largest companies.

However, one of the many great features of D&P is that they allow you to measure size by eight different categories, six of which do not include an assumption of the value of the subject company. In addition to market value of common equity and market value of invested capital (see D&P definition above), D&P allows comparisons based on the following: book value of common equity, five-year average net income, total assets, five-year average EBITDA, sales and number of employees.

This still leaves the two other measures of size, market value of common equity and market value of invested capital. Most analysts will make an assumption of value for the subject company based on the results of the other six categories of size as well as a possible range of value to use the two value based measures of size. For example, the average company size for market value of equity and market value of invested capital for size categories 23, 24 and 25 are as follows:

Size Category	**Equity** ($mil)	**MVIC** ($mil)
25	99	135
24	287	363
23	476	591

(Source: Duff & Phelps Risk Premium Report, 2008, exhibits A-1 and A-4).

When valuing smaller companies and given the large size differential for categories 23, 24 and 25, it is usually evident where the subject company should be within that range of size categories. Is it an assumption of value? Yes. However, it can usually be supported as stated above.

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