



409A VALUATION

PREPARED FOR MEETLY BY ESHARES VALUATIONS LLC

VALUATION DATE: APRIL 30, 2016



TABLE OF CONTENTS

INTRODUCTION

Letter of engagement	5
----------------------------	---

VALUATION RESULTS

Valuation summary	7
Enterprise value determination	8
Equity value allocation	10
Valuation conclusion	11

SUPPORTING EXHIBITS

Exhibit A - Options pricing model inputs.....	13
Exhibit B - Equity breakpoints	14
Exhibit C - Comparable public companies exhibit 1.....	15
Exhibit D - Comparable public companies exhibit 2.....	16
Exhibit E - Choice of marketability discount.....	17

COMPANY OVERVIEW

Product.....	22
Management team.....	22

Stage of development 24

INDUSTRY OVERVIEW

Key statistics 26
Major products 27
Major markets 28
Operating conditions..... 29
Industry structure 31
Competitive landscape 34

REPORT CERTIFICATION

Appraiser bio and credentials..... 37
Report certification and limiting conditions..... 41

APPENDIX

IRC Section 409A overview 44
Valuation methodologies 46
 Market approach 47
 Income approach 49
 Asset approach..... 51
Equity value allocation 52
 Current value method 52
 Probability weighted expected return method 53

Options pricing model	54
Discount for lack of marketability	56
Benchmark study approaches.....	59
Securities-based approaches - the Longstaff approach.....	62
Securities-based approaches - the Chaffe approach.....	18
Securities-based approaches - the Finnerty approach.....	20



APRIL 30, 2016

EMILY WILSON

CHIEF EXECUTIVE OFFICER

MEETLY

870 MARKET STREET | SAN FRANCISCO, CA

Meetly (the "Company") has engaged eShares Valuations LLC ("eShares Valuations" or "eShares") as an independent and qualified financial advisor to determine the fair market value ("FMV") of the Company's common stock ("Common Stock") as of April 30, 2016 on a minority, non-marketable interest basis.

PURPOSE AND SCOPE

For purposes of this analysis, Meetly's management provided us with financial records and other pertinent documents pertaining to the Company's operations and assets. This information has been accepted as a proper representation of Meetly's operations and condition. This letter along with the following report and exhibits are intended to be used by the Board of Directors of Meetly for the exclusive purpose of

compliance with IRC §409A and as an input for financial reporting purposes relating to ASC 718 compliance. We make no representation as to the accuracy of this Valuation if it is used for any other purpose without the written consent of eShares Valuations LLC. This Valuation should not be considered, in whole or in part, as investment advice by anyone.

DEFINITION OF VALUE

For the purposes of this report, Fair Market Value ("FMV") is defined as the price at which an asset would change hands between a willing and informed seller and a willing and informed buyer that are both operating under their own free will.

SUMMARY OF FINDINGS

Based on our analysis, it is our opinion that the value of the Common Stock of Meetly on a minority, non-marketable interest basis as of the Valuation Date is: **\$0.25**. eShares Valuations LLC has based this Valuation on information provided and represented by the management of Meetly. eShares Valuations has followed the American Institute of Certified Public Accountants ("AICPA") guidelines for the valuation of privately-held company equity securities as described in its valuation guide (Valuation of Privately-Held-Company Equity Securities Issued as Compensation, 2013).

As such, eShares Valuations has applied commonly-used valuation techniques in determining the FMV of Meetly's equity, including the Market, Income, and Asset valuation approaches.

eShares Valuations' fee for this service is not contingent upon the results of the Valuation expressed herein. This Valuation is subject to the terms and conditions of the engagement letter between eShares Valuations LLC and Meetly executed on April 30, 2016.

ESHARES VALUATIONS LLC

Christine Ngo

Valuation Manager

Thomas McLaughlin

Valuation Manager

Simon Gu

Valuations Associate

Henry Ward

Managing Director

VALUATION SUMMARY

\$0.25

COMMON STOCK VALUE

APRIL 30,
2016

VALUATION DATE

APRIL 30,
2017

EXPIRATION DATE

SELECTED VALUATION METHODOLOGIES

DETERMINE ENTERPRISE VALUE

MARKET APPROACH (BACKSOLVE) - APPLICABLE

According to the AICPA guidelines, recent securities transactions should be considered as a relevant input for computing the enterprise valuation. Given that there indeed were securities transactions recent to the valuation date, we chose to utilize the backsolve method.

INCOME APPROACH (DISCOUNTED CASH FLOW) - NOT APPLICABLE

eShares Valuations felt that revenue projections were at this point too speculative or otherwise unreliable to be relied upon for this valuation analysis. Thus, the Income Approach was considered inappropriate for this analysis.

ASSET APPROACH - NOT APPLICABLE

Given that the enterprise is in this case not a particularly capital-intensive business, we concluded that other valuation approaches would better capture the fair market value than would the Asset Approach. Thus, the Asset Approach was considered inappropriate for this analysis.

SELECTED VALUATION METHODOLOGIES

DETERMINE ENTERPRISE VALUE

VALUATION APPROACH	IMPLIED EQUITY VALUE	WEIGHTING
Market Approach (Backsolve)	\$6,123,712.27	100.00%
Income Approach	Not applicable	0.00%
Asset Approach	Not applicable	0.00%
WEIGHTED IMPLIED EQUITY VALUE	\$6,123,712.27	100.00%

SELECTED VALUATION METHODOLOGIES

ALLOCATE EQUITY VALUE

EQUITY ALLOCATION METHOD	DECISION
Current Value Method	Not applicable
Option Pricing Model	Applicable
Probability Weighted Expected Return Model	Not applicable

ALLOCATE EQUITY VALUE**COMMON SHARE PRICE**

Option pricing model**\$0.34**

Using the Black-Scholes option pricing model, this method allocates the equity value among each share class, accounting for any economic rights (i.e. liquidation preferences) for all share classes.

Discount for lack of marketability**25.97%**

A discount of 25.97% is applied to account for a lack of marketability of Meetly stock.

CONCLUSION

A common stock price of \$0.25 per share has been concluded.

\$0.25



VALUATION ASSUMPTIONS

Cap table

This valuation is based on the Company's cap table on eShares as of April 30, 2016. The fully diluted share count was 14,923,000.

Options to issue over the next 12 months

This valuation assumes that 1,000,000 shares in the option pool will be issued in the next 12 months.

Public company comparables

We chose a basket of comparable public peer companies to establish an analogous trading volatility estimate for Meetly.


EXHIBIT A - MEETLY OPTIONS PRICING MODEL INPUTS

Fair Market Value of Equity	\$6,123,712.27
Risk-free interest rate As of April 30, 2016.	1.28%
Volatility Selected according to the historical trading volatilities of similar publicly-traded companies.	52.60%
Time to next liquidity event	5.0 years

Note: a full Options Pricing Model has been included with this valuation report. Please refer to the full model for more details.

EXHIBIT B - MEETLY BREAKPOINTS

Company Value		Description
\$0.00	\$4,545,000.00	<i>Liquidation preference</i>
\$4,545,000.00	\$5,135,480.00	<i>Common participates</i>
\$5,135,480.00	\$5,458,460.00	<i>\$0.11 Options participate</i>
\$5,458,460.00	\$5,623,715.00	<i>\$0.17 Options participate</i>
\$5,623,715.00	\$5,949,396.05	<i>\$0.20 Options participate</i>
\$5,949,396.05	\$6,030,459.75	<i>FMV Options participate</i>
\$6,030,459.75	\$7,567,029.75	<i>Series Seed converts to Common and \$0.2650 Warrants participate</i>
\$7,567,029.75	\$9,611,897.25	<i>Series A converts to Common</i>
\$9,611,897.25	\$16,365,576.17	<i>\$0.64 Options participate</i>
\$16,365,576.17	Infinity	<i>Series B converts to Common</i>

Note: a full breakpoint description and financial model has been included with this valuation report. Please refer to the full model for more details regarding the shareclass allocation at each breakpoint.

EXHIBIT C - MEETLY COMPARABLE PUBLIC COMPANIES

LTM operating metrics

Ticker	TTM Revenue	Gross profit
GOOG	\$77,988.00	\$48,532.00
BOX	\$302.70	\$215.60
AAPL	\$227,535.00	\$90,573.00
MSFT	\$86,886.00	\$54,617.00
TEAM	\$365.32	\$323.68

EBIT & EBITDA

Ticker	EBITDA	EBIT
GOOG	\$25,512.00	\$20,255.00
BOX	(\$164.47)	(\$199.42)
AAPL	\$78,498.00	\$66,864.00
MSFT	\$29,148.00	\$23,487.00
TEAM	\$15.74	\$4.31

EXHIBIT D - MEETLY COMPARABLE PUBLIC COMPANIES

Balance sheet metrics

Ticker	ROA (%)	ROE (%)
GOOG	8.94%	14.69%
BOX	-25.17%	-99.97%
AAPL	14.75%	39.06%
MSFT	8.19%	12.71%
TEAM	%	%

Key Ratios

Ticker	Current ratio	Quick ratio
GOOG	5.14x	4.75x
BOX	1.28x	1.17x
AAPL	1.28x	1.11x
MSFT	2.90x	2.65x
TEAM	3.74x	3.70x



EXHIBIT E - DISCOUNT FOR LACK OF MARKETABILITY

Selected approach: The Chaffe Approach & The Finnery Approach

Discount for Lack of Marketability: 25.97%

Note: a full discussion of the selected methodologies follows on the next page.

THE CHAFFE APPROACH⁶

In 1993, David Chaffe authored an option pricing study in which he related the cost to purchase a European put option to the Discount for Lack of Marketability. In Chaffe's estimation, *“if one holds restricted or non-marketable stock and purchases an option to sell those shares at the free market price, the holder has, in effect, purchased marketability for those shares. The price of that put is the discount for lack of marketability.”* Chaffe relied on the Black Scholes Option Pricing Model for a put option to determine the cost or price of the put option, and defined the DLOM as the cost of the put option divided by the market price.

According to Chaffe, this approach should be considered the theoretical **lower bound** on an enterprise's DLOM, since a European put option pricing formula does not take into account early exercise.

THE CHAFFE MODEL

$$v\sqrt{T} = \sqrt{\sigma^2 T + \ln[2(e^{\sigma^2 T} - \sigma^{2T} - 1)] - 2 \ln(e^{\sigma^2 T} - 1)}$$

Where:

S_0 = total equity value

X = equity breakpoint value

q = continuously compounded dividend yield

t = time to expiration (% of year)

σ = volatility

r = risk-free rate

$N(\cdot)$ = standard normal cumulative distribution function

CHAFFE APPROACH - REPRESENTATIVE DLOMS

	Volatility	25.00%	50.00%	75.00%	100.00%	125.00%
Time to Exit						
	1	9.25%	18.97%	27.48%	37.40%	45.86%
	2	12.61%	26.01%	37.41%	50.11%	60.25%
	3	14.97%	30.98%	44.20%	58.28%	68.81%
	4	16.81%	34.84%	49.30%	64.02%	74.35%
	5	18.32%	37.97%	53.50%	68.20%	78.00%

⁶ David B.H. Chaffe III, "Option Pricing as a Proxy for Discount for Lack of Marketability in Private Company Valuations," *Business Valuation Review* (December 1993): 182–6.
(Model corrected and updated in 2009; the eShares valuation uses the corrected, updated model)

THE FINNERTY APPROACH⁷

In 2002, John D. Finnerty conducted an extension of the Longstaff study, that “tests the relative importance of transfer restrictions on the one hand and information and equity ownership concentration effects on the other in explaining private placement discounts.” However, unlike Longstaff, Finnerty did not assume that investors have perfect market timing ability. Instead, Finnerty modeled the DLOM as the value of an average strike put option. In general, the Finnerty model generates DLOMs that are relatively close to the average DLOMs reported in the empirical studies mentioned above.

THE FINNERTY MODEL

$$D(T) = V_0 e^{-qt} [\mathcal{N}(v\sqrt{T}/2) - \mathcal{N}(-v\sqrt{T}/2)]$$

$$v\sqrt{T} = \sqrt{\sigma^2 T + \ln[2(e^{\sigma^2 T} - \sigma^{2T} - 1)] - 2\ln(e^{\sigma^2 T} - 1)}$$

Where:

$D(T)$ = Discount for Lack of Marketability

V_0 = The value of the share of common stock without transfer restrictions

q = Continuously compounded dividend yield

t = Time to expiration (% of year)

σ = Volatility

r = Risk-free rate

e = The mathematical constant = 2.71828...

$\mathcal{N}(\cdot)$ = standard normal cumulative distribution function

FINNERTY APPROACH - REPRESENTATIVE DLOMS

	Volatility	25.00%	50.00%	75.00%	100.00%	125.00%
Time to Exit						
	1	5.72%	11.24%	16.34%	20.85%	24.62%
	2	8.04%	15.50%	21.84%	26.63%	29.74%
	3	9.79%	18.52%	25.26%	29.50%	31.49%
	4	11.24%	20.85%	27.54%	30.95%	32.05%
	5	12.49%	22.73%	29.10%	31.66%	32.22%

Note: The Finnerty model has a mathematical asymptote at approximately 32%. Thus, for companies at higher volatilities, this model may understate the proper DLOM.

⁷ John D. Finnerty, "The Impact of Transfer Restrictions on Stock Prices." Analysis Group/ Economics (October 2002).

COMPANY OVERVIEW

CORPORATE ENTITY

Meetly is a C-Corporation that was incorporated in the State of Delaware on August 26th, 2012. Meetly common stock was last valued at \$0.55 per share as of March 1, 2016.

PRODUCT

Meetly makes online appointment scheduling software for businesses of any size. Their cloud-based scheduling solution requires no software installation, and offers free apps for iPhone, iPad, and Android. Meetly is on a mission to transform the way people meet and make appointments. The company was founded by Emily Wilson and Billy Johnson in 2012.

MANAGEMENT TEAM

Ivan Gilson

Ivan Gilson is the Vice President of Sales for Meetly, Inc. Prior to joining Meetly, Ivan held sales leadership positions at IMIM and Taskmaster, Inc. Ivan graduated from the University of Tennessee with a B.S. in Communications.

Jeanette Davis

Jeanette Davis is the Chief Operating Officer of Meetly, Inc. Prior to joining Meetly, Jeanette's roles have included the VP of Sales at IMIM and the Chief Operating Officer of Okeru, Inc. Jeanette holds a B.S. in Computational Finance and a M.S. in Quantitative Finance from Carnegie Mellon University.

Emily Wilson

Emily Wilson is the Founder and Chief Executive Officer of Meetly, Inc. Prior to joining Meetly, Emily was the Founder and CEO of both BetaHex and ThunderLizard, Inc. Emily graduated from the University of Michigan with a B.S. in Economics and also holds an MBA from Stanford University.

Michael Edmonson

Michael Edmonson is the Chief Financial Officer of Meetly, Inc. Prior to joining Meetly, Michael held numerous senior leadership positions at each of the Big Four auditing firms. Michael graduated from Harvard University with a B.S. and an M.S. degree in Quantitative Finance and Accounting.

STAGE OF DEVELOPMENT

The American Institute of Certified Public Accountants (AICPA) defines six stages of enterprise development:

STAGE ONE

Enterprise has no product revenue to date and limited expense history, and typically an incomplete management team with an idea, plan, and possibly some initial product development. Typically, seed capital or first-round financing is provided during this stage by friends and family, angels, or venture capital firms focusing on early-stage enterprises, and the securities issued to those investors are occasionally in the form of common stock but are more commonly in the form of preferred stock.

STAGE TWO

Enterprise has no product revenue but substantive expense history, as product development is underway and business challenges are thought to be understood. Typically, a second or third round of financing occurs during this stage. Typical investors are venture capital firms, which may provide additional management or board of directors expertise. The typical securities issued to those investors are in the form of preferred stock.

STAGE THREE

Enterprise has made significant progress in product development; key development milestones have been met (for example, hiring of a management team); and development is near completion (for example, alpha and beta

testing), but generally there is no product revenue. Typically, later rounds of financing occur during this stage. Typical investors are venture capital firms and strategic business partners. The typical securities issued to those investors are in the form of preferred stock.

STAGE FOUR

Enterprise has met additional key development milestones (for example, first customer orders, first revenue shipments) and has some product revenue, but is still operating at a loss. Typically, mezzanine rounds of financing occur during this stage. Also, it is frequently in this stage that discussions would start with investment banks for an IPO.

STAGE FIVE

Enterprise has product revenue and has recently achieved breakthrough measures of financial success such as operating profitability or breakeven or positive cash flows. A liquidity event of some sort, such as an IPO or a sale of the enterprise, could occur in this stage. The form of securities issued is typically all common stock, with any outstanding preferred converting to common upon an IPO (and perhaps also upon other liquidity events).

STAGE SIX

Enterprise has an established financial history of profitable operations or generation of positive cash flows. An IPO or sale of the enterprise could also occur during this stage.

Accordingly, eShares Valuations considers Meetly to be in development **Stage Two**.

INDUSTRY OVERVIEW

Industry: Software Publishing

\$192.7B

INDUSTRY REVENUE, 2015

3.0%

PROJECTED GROWTH 2015-2020

7,737

FIRMS IN INDUSTRY

\$40.1B

PROFIT

\$65.1B

WAGES

\$87.5B

OTHER COSTS

INDUSTRY SUMMARY

Software publishers disseminate licenses to customers for the right to execute software on their own computers. Operators in this industry market and distribute software products and may also design the software, produce support materials and provide support services.

MAJOR PRODUCTS

Other

Custom application design and development are designed for specific organizations and users. These may include agriculture, aerospace & defense, education, healthcare, and transportation industries among others. More expensive than other types of software, custom software accommodates the customers' needs and may be designed in stages and permit changes and improvements.

System software publishing

Computer software that makes up the computer's operating system, is designed to control the computer hardware, and provides a platform for application software, system software publishing is expected to account for about 33.0% of revenue. The systems software is installed when the operating system is installed and enables it to interact with

the hardware. Operating systems software, which manages the computer's processes, memory, hardware and other software makes up for more than a third of total systems software publishing. Network software accounts for another third of the systems software publishing segment, designed to set up, manage and monitor computer networks. Networking software enables computers to communicate with each other or provides user access to share programs. The final third is composed of database management software, development tools and programming languages software as well as several others.

Application software publishing

Unable to run independently of the operating system, applications are programs designed for the end-user to carry out specific applications, such as word processing, graphics, databases or games. This segment is expected to account for about 36.3% of total industry revenue. General business productivity and home use applications make up almost 50.0% of this segment's revenue. Cross-industry application software, which provides software for common core activities, such as invoicing, attendance, accounts payable, human resources on boarding and many others, across several industries, makes up almost 30.0% of application software

publishing. Almost 20.0% of applications software is split between vertical market application software and utilities application software. The former is a software that is often customized to meet the needs of a specific industry, supporting a specific business process for a small number of users. The latter also performs very specific tasks that are limited in capability. Video game publishers fall into this segment, and make up 2.3% of industry revenue.

MAJOR MARKETS

Government and households

Government and household users are estimated to account for about 7.5% and 30.3% of industry revenue, respectively. Governmental needs are similar to that of business, though relative revenue from the government sector has declined. The household market is more diverse, as purchases range from games and photo editing to educational, word-processing and spreadsheet software. Handheld computing devices still represent a smaller share of revenue, as they are relatively inexpensive in comparison to the software bought by businesses in the United States. Nevertheless, share of revenue stemming from households has increased significantly over the past five years.

Businesses

Businesses form the bulk of end customers for the Software Publishing industry, accounting for an estimated 62.2% of industry revenue. Businesses adopt operating systems and application software to boost productivity and cater to industry-specific environments, like computer-aided design and manufacturing. Virus prevention and protection from "hackers" are also areas in which businesses require continual upgrades in software to meet ever-changing threats to internal networks and websites. Some industries, including those in the health and finance sectors, have increased spending on software to improve systems in coping with regulatory and market changes. Large businesses have increasingly resorted to "off-the-shelf" software, including enterprise resource planning software, customer relationship management software and database management software. A move toward networked workplaces has driven demand for networking software, as well as applications software.

OPERATING CONDITIONS

Capital intensity

Low

Revenue volatility

Medium

Regulation

Low

CAPITAL INTENSITY

The Software Publishing industry is highly labor-intensive, spending about \$0.06 on capital investments for every \$1.00 spent on labor. Most software companies require only limited capital goods, such as computers and office space. Software is an intangible product that requires highly skilled employees and a significant time investment. Companies rarely encode their software on discs themselves, preferring to outsource that activity. The industry spends 33.8% of revenue on employee wages. The largest companies, however, employ thousands of workers and require much larger office space than smaller competitors.

REVENUE VOLATILITY

The Software Publishing industry has had a moderate level of revenue volatility over the five years to 2015. The majority of industry revenue comes from software sold to businesses, normally on a subscription basis. Most businesses treat software spending as a capital expense, as software is seen as a productivity-enhancing tool. In times of increasing demand, businesses take advantage of available funds to invest in computer software and increase productivity. On the other hand, many businesses do not view software spending as necessary in an environment of declining demand. Companies that primarily sell their products to consumers or businesses on a single license basis experience much more revenue volatility than business-oriented software

companies. This is particularly true for software which is updated regularly and customarily bought in concordance with new hardware. As consumer credit tightens and consumers reduce their debt levels, hardware sales decline, and software sales and updates decline as a result.

REGULATION

The future success of many software companies is highly dependent upon their proprietary technology, including their software and their source code for that software. Failure to protect such technology could lead to a loss of valuable assets and competitive advantage. Software companies protect their proprietary information through the use of patents, copyrights, trademarks, trade secret laws, confidentiality procedures and contractual provisions. Congress has passed the Sherman Antitrust Act, the Wilson Act, the Clayton Act, and the Robinson-Patman Act, along with various other regulations regarding unfair competition. In addition, states have enacted their own antitrust laws to ensure that the general public is provided with the best prices, quality and competition among businesses. In 2010, the Department of Justice (DOJ) filed a \$1.0 billion lawsuit against Oracle, claiming that between 1998 and 2006, the federal government did not receive the same discounts for services as the commercial sector. The case was ultimately

settled for just under \$200.0 million. In 1994, the DOJ opened an investigation into whether Microsoft was abusing its monopoly on the PC operating system market. In 2004, the investigation resulted in a settlement, in which Microsoft consented to not tying other Microsoft products to the sale of its Windows operating system. In 1998, the DOJ and the attorney generals of 20 states sued Microsoft for illegally thwarting competition. In 2001, the DOJ reached a proposed settlement, requiring Microsoft to share its application programming interfaces with third-party companies and appoint a panel of three people who would have full access to Microsoft's systems, records, and source code for five years to ensure compliance. In 2004, a US Appeals Court approved the settlement, with Microsoft's obligation under the settlement, as originally drafted, expiring on November 12, 2007. Microsoft later agreed to a two-year extension of part of the final judgments dealing with communications protocol. Microsoft has stated that it has "established a strong track record of complying with the expiring portions of the Final Judgments."

INDUSTRY STRUCTURE

Globalization

High

Barriers to entry

Medium

Competition

High

GLOBALIZATION

Globalization is on the rise, as major players in the Software Publishing industry increasingly become multinational companies and control a large percentage of the worldwide software publishing market. Typically, sales to customers outside the United States represent about half of their total sales. Many industry players have made acquisitions and formed collaborative alliances across national borders to achieve economies of scale and reach local markets. International trade flows do not reflect these trends because software is generally transferred to printers who reproduce the software locally, rather than through physical shipments of media across international borders. Some US software companies have established software development facilities in low-wage countries, such as India. For example, in February 2008, CA Technologies finalized an agreement with

HCL Technologies (an Indian company). From this partnership, HCL assumed all responsibilities for product development and research as well as customer support associated with CA's internet security business.

BARRIERS TO ENTRY

The Software Publishing industry has moderate barriers to entry, though certain product segments have much stronger barriers than others. Patents on intellectual property are commonly used to limit competition, though in many cases companies are willing to license their patented technology. In certain product segments, particularly operating systems, network effects are a key factor protecting incumbent products; for example, the ubiquity of Microsoft's Windows

operating system makes it extremely difficult for competing products to gain market share, even when the competing software is more technologically robust and given away for free. Software publishers have historically been the targets of antitrust regulators. In 1998, the US Department of Justice brought charges against Microsoft for anticompetitive business practices that led to the dominance of Microsoft's Internet Explorer web browser over competing programs. Microsoft had been bundling its web browser with its immensely popular Windows operating system and forming restrictive licensing agreements with computer vendors. Software bundling remains a common competition-limiting practice, though large software publishers must be careful not to garner too much regulatory scrutiny. Companies looking to supply software to the government, particularly military contractors, must have that software approved through additional certification and accreditation processes. On an investment basis, there are few barriers to entry for software publishing start-ups. Many software companies began with a little more than a handful of computers and programmers. Scarcity of highly skilled, creative programmers is the most limiting factor for software publishers, leading to very high wages or stock-based compensation plans.

COMPETITION

Internal competition Competition in the Software Publishing industry varies significantly depending on the target market for a particular piece of software. Retail software Competition in the market for retail software can be fierce. Although some companies, like Microsoft, have met success and profit in the retail market, such success is rare. The ability of small software publishers to advertise and distribute their product cheaply via the internet has hurt profitability for what once were mighty companies, particularly in the security segment, where McAfee and Symantec once reigned. Another threat is the open-source software movement, wherein programmers contribute to publicly available code, which is then distributed freely. While such software can lack the polish (i.e. usability, attractiveness and stability) of professionally published programs, it can be updated more easily, and is often more standards-compliant. The one software segment largely immune to the open-source movement is video games, which require not only programming but significant efforts in asset creation as well as organization. But even in video games there are numerous communities devoted to the production of freely downloadable add-ons for existing titles, and involvement in such an effort is seen as a key stepping-stone toward gainful employment in the industry. Indeed, many games tout their community of independent developers and

content as a reason to buy the original game. Enterprise software While the enterprise software market is enormous, the massive profitability of the major industry operators suggests a systemic inefficiency. That inefficiency arises due to customers' difficulty in comparing competitors' prices directly. In addition, the wave of acquisitions made by the major companies in this market have led to each offering sprawling lists of overlapping products with unintuitive names, and descriptions so weighed down with jargon and business speak, they are largely unintelligible. However, these larger companies have a competitive advantage in that other companies requiring enterprise software often have significant constraints that all but rule out smaller and open-source competitors. Many require their software supplier to offer significant support contracts, and for those contracts to be backed by an extensive support staff. In addition, many companies may have either internal security requirements or external security requirements imposed upon them by their customers. The banking industry and military contractors, for instance, both have very particular and demanding certification processes required of any software they use. Such requirements reduce the ease with which new companies can penetrate the enterprise market. Among one another, industry operators often compete via lawsuits, usually through the patent enforcement process. External competition Cloud computing also looms as an emerging

source of competition. Cloud computing refers to massive clusters of servers designed to function as a single unit for the storage of large amounts of data. Users can then access this storage over the internet. Google, for instance, makes use of cloud technology to run its Google Docs application, which competes with some of Microsoft's services. Google Docs is accessed via web browser, and the documents are stored remotely, in Google's "cloud." Such software most immediately presents a threat to companies providing productivity software, because cloud computing is low-intensity, computationally, and does not require much more functionality than can be provided via web browser. Furthermore, some companies, such as EMC, Oracle, and IBM, are major providers of the hardware and software used to operate clouds, and stand to benefit tremendously from widespread adoption of the cloud. However, most individual users require more reliable access to their documents than their connections to the internet provide them. Until users have widespread redundancy in their network connections, most will prefer the familiarity of their locally installed word processors. At the enterprise level, however, industry operators will have the ability to collect and store all of their important business information in a single location with multiple offsite backups, and can be expected to spend heavily on this capability.

COMPETITIVE LANDSCAPE

Market share concentration

Low

Competition

High

Globalization

High

MARKET SHARE CONCENTRATION

The Software Publishing industry has a low level of market share concentration, with the three largest companies accounting for less than one third of industry revenue in 2015. Concentration has remained relatively steady over the past five years. While many startups have entered the market, this has been balanced out by the largest software publishers being active in acquisitions, targeting smaller companies with innovative products or attractive patent portfolios. Increased consolidation has also been a result of companies trying to gain a larger customer base. Some business customers are looking to reduce the complexity of their IT infrastructure and drive efficiency with fewer IT suppliers. The largest companies usually achieve these goals through a combination of internal development and acquisitions, such as Oracle's 2010 acquisition of Sun Microsystems. Due to the

varied nature of the software market, other than Microsoft, no single company dominates software publishing as a whole. The size of Microsoft's market share is due to its leading role in the operating system, business analytics and video game software segments. Other players in this industry, however, focus on only one or two industry segments. As a result, their market share for software publishing is relatively small, resulting in a low market share concentration for the industry. Concentration varies widely by market segment. It is typically high in the operating system and middleware segments, but relatively low in the large applications segment. Categories within the applications segment can be highly concentrated as well. For example, the important relational database market has about 90.0% penetration from only a few companies (e.g. IBM, Oracle and Microsoft).

COMPETITION

Internal competition Competition in the Software Publishing industry varies significantly depending on the target market for a particular piece of software. Retail software Competition in the market for retail software can be fierce. Although some companies, like Microsoft, have met success and profit in the retail market, such success is rare. The ability of small software publishers to advertise and distribute their product cheaply via the internet has hurt profitability for what once were mighty companies, particularly in the security segment, where McAfee and Symantec once reigned. Another threat is the open-source software movement, wherein programmers contribute to publicly available code, which is then distributed freely. While such software can lack the polish (i.e. usability, attractiveness and stability) of professionally published programs, it can be updated more easily, and is often more standards-compliant. The one software segment largely immune to the open-source movement is video games, which require not only programming but significant efforts in asset creation as well as organization. But even in video games there are numerous communities devoted to the production of freely downloadable add-ons for existing titles, and involvement in such an effort is seen as a key stepping-stone toward gainful employment in the industry. Indeed, many games tout their community of independent developers and

content as a reason to buy the original game. Enterprise software While the enterprise software market is enormous, the massive profitability of the major industry operators suggests a systemic inefficiency. That inefficiency arises due to customers' difficulty in comparing competitors' prices directly. In addition, the wave of acquisitions made by the major companies in this market have led to each offering sprawling lists of overlapping products with unintuitive names, and descriptions so weighed down with jargon and business speak, they are largely unintelligible. However, these larger companies have a competitive advantage in that other companies requiring enterprise software often have significant constraints that all but rule out smaller and open-source competitors. Many require their software supplier to offer significant support contracts, and for those contracts to be backed by an extensive support staff. In addition, many companies may have either internal security requirements or external security requirements imposed upon them by their customers. The banking industry and military contractors, for instance, both have very particular and demanding certification processes required of any software they use. Such requirements reduce the ease with which new companies can penetrate the enterprise market. Among one another, industry operators often compete via lawsuits, usually through the patent enforcement process. External competition Cloud computing also looms as an emerging

source of competition. Cloud computing refers to massive clusters of servers designed to function as a single unit for the storage of large amounts of data. Users can then access this storage over the internet. Google, for instance, makes use of cloud technology to run its Google Docs application, which competes with some of Microsoft's services. Google Docs is accessed via web browser, and the documents are stored remotely, in Google's "cloud." Such software most immediately presents a threat to companies providing productivity software, because cloud computing is low-intensity, computationally, and does not require much more functionality than can be provided via web browser. Furthermore, some companies, such as EMC, Oracle, and IBM, are major providers of the hardware and software used to operate clouds, and stand to benefit tremendously from widespread adoption of the cloud. However, most individual users require more reliable access to their documents than their connections to the internet provide them. Until users have widespread redundancy in their network connections, most will prefer the familiarity of their locally installed word processors. At the enterprise level, however, industry operators will have the ability to collect and store all of their important business information in a single location with multiple offsite backups, and can be expected to spend heavily on this capability.

GLOBALIZATION

Globalization is on the rise, as major players in the Software Publishing industry increasingly become multinational companies and control a large percentage of the worldwide software publishing market. Typically, sales to customers outside the United States represent about half of their total sales. Many industry players have made acquisitions and formed collaborative alliances across national borders to achieve economies of scale and reach local markets. International trade flows do not reflect these trends because software is generally transferred to printers who reproduce the software locally, rather than through physical shipments of media across international borders. Some US software companies have established software development facilities in low-wage countries, such as India. For example, in February 2008, CA Technologies finalized an agreement with HCL Technologies (an Indian company). From this partnership, HCL assumed all responsibilities for product development and research as well as customer support associated with CA's internet security business.

APPRAISER BIO AND CREDENTIALS

HENRY WARD

Managing Director, eShares Valuations LLC

Henry Ward is the CEO of eShares, Inc, the Managing Director of eShares Fund Advisors LLC, and the Managing Director of eShares Valuations LLC. Prior to eShares, Henry was the CEO of Secondsight Inc, a portfolio optimization software company executing real-time valuation and optimization models on complex equity portfolios. Previously Henry worked as a quantitative analyst at the investment bank Natixis building valuation and yield curve models for fixed income traders. Henry has also held senior technical and business roles in a number of industry leading software companies including Trilogy, Callidus, and Reddwerks.

Henry has a B.G.S from the University of Michigan with a concentration in Mathematics and an M.S.C in Quantitative Finance from EDHEC.

APPRAISER BIO AND CREDENTIALS

CHRISTINE NGO, CVA

Valuation Manager, eShares Valuations LLC

Christine Ngo is a Valuation Manager at eShares Valuations LLC. She has significant valuation experience, completing over 300 valuation projects including intangible asset valuations, stock option analyses for financial reporting, fairness opinions and corporate planning.

Prior to joining eShares, Christine completed valuation and financial reporting work as an Associate at Teknos Associates. Her work experience also includes positions with the business valuation and litigation support firms Valuation Services, Inc., where she completed valuation projects for corporate planning, private equity transactions, and gift and estate tax purposes.

Christine's experience also includes an internal audit role with Ernst and Young.

Christine received a B.S. in Finance from the University of Virginia. Additionally, Christine holds the designation of Certified Valuation Analyst (CVA) granted by the National Association of Certified Valuators and Analysts and is a CFA Level II Candidate.

APPRAISER BIO AND CREDENTIALS

THOMAS MCLAUGHLIN

Valuation Manager, eShares Valuations LLC

Thomas McLaughlin is a Valuation Manager at eShares Valuations LLC. Thomas has significant valuation experience and has completed over 100 valuation projects and has reviewed hundreds more. Prior to joining eShares, Thomas worked as an Associate at Citigroup in the low-latency high frequency trading division. Here, Thomas was directly responsible for supporting over 5,000 individual algorithmic and high-frequency trading servers located at ever major securities and commodities exchange in the world.

Thomas has contributed directly to two academic financial publications:

Essays in Venture Capital: Institutional Investor Behavior and IPO Performance^[a]

Fundamentals of Corporate Finance, 7th edition^[b]

Thomas received a B.S. in Mathematics, a B.S. in Economics, and a B.S. in Computational Finance from Saint Vincent College.

^[a]Racculia, N. M., Malkiel, B. G., Jurek, J., & Xiong, W. (n.d.). *Essays in venture capital: Institutional investor behavior and IPO performance*. Princeton, NJ: Princeton University.

^[b]Brealey, Richard A., Stewart C. Myers, and Alan J. Marcus. *Fundamentals of Corporate Finance*. New York: McGraw-Hill/Irwin, 2012. Print.

APPRAISER BIO AND CREDENTIALS

SIMON GU

Valuations Associate, eShares Valuations LLC

Simon Gu is a Valuations Associate at eShares Valuations LLC. Prior to joining eShares, Simon worked at a wealth management firm as a U.S. Equity Analyst. There, Simon conducted equity and credit research to drive alpha-capturing strategies and was directly responsible for helping the firm grow assets from \$212,000,000 to \$230,000,000. Simon is a CFA candidate and has received a B.S. in Microbiology from the University of California Santa Barbara.

REPORT CERTIFICATION

This valuation complies with generally accepted standards

This valuation was created in compliance with the Uniform Standards of Professional Appraisal Practice and the American Institute of Certified Public Accountants valuation methodologies.

This valuation is unbiased

Neither eShares nor its staff who conducted this valuation have a present or intended financial interest in the Company. The fees for this service are not contingent upon the valuation opinion expressed in this report.

This valuation uses the best information available

This valuation was created using the best information available, and assumes that there are no hidden or unapparent conditions that would materially alter the opinion expressed in this report. This valuation assumes that, as of

the Effective Date of April 30, 2016, the Company will continue to operate as a going concern.

The information in this report is believed to be correct

For purposes of this valuation report, the management of Meetly provided us with financial data and other records and documents pertaining to the Company's operations and assets, which have not been independently verified. This information has been accepted as a proper representation of the Company's operations and condition.

Purpose and distribution of valuation

The valuation prepared by eShares Valuations is prepared solely for the purpose stated in the Engagement Letter and should not be used for any other purpose. Except as specifically stated by eShares Valuations, this valuation report and its contents may not be quoted or referred to, in whole or

in part, in any registration statement, prospectus, public filing, loan agreement, or other agreement or document without the prior written approval of eShares Valuations. This valuation report is prepared for Client use only for the stated purpose as of the valuation date and may not be reproduced or distributed to any third parties without eShares Valuations LLC prior written consent.

Nature of opinion

Nothing in this valuation report is to be construed as a fairness opinion as to the fairness of an actual or proposed transaction, a solvency opinion, or an investment recommendation, but, instead, is the expression of eShares Valuations' determination of the fair market value of assets between a hypothetical willing buyer and a hypothetical willing seller in an assumed transaction on an assumed valuation date. For various reasons, the price at which the assets might be sold in a specific transaction between specific parties on a specific date might be significantly different from the fair market value as expressed in this report.

Reliance on forecasted data

eShares Valuations' use of Client's management projections or forecasts in any analysis does not constitute an examination or compilation of prospective financial

statements in accordance with standards established by the American Institute of Certified Public Accountants ("AICPA"). eShares does not express an opinion or any other form of assurance on the reasonableness of the underlying assumptions or whether any of the prospective financial statements, if used, are presented in conformity with AICPA presentation guidelines. Further, there will usually be differences between prospective and actual results because events and circumstances frequently do not occur as expected and these differences may be material. Achievement of the forecasted results is dependent on action, plans, and assumptions of management.

Testimony

eShares Valuations and its employees, consultants and agents shall not provide any testimony or appear in any legal proceeding unless eShares Valuations coordinates such testimony.

APPENDIX

IRC SECTION 409A

Section 409A was added to the Internal Revenue Code on January 1, 2005, and issued final regulations in 2009. In most private company cases, the main concern is the IRS assessing penalties if option strike prices are not at least at fair market value ("FMV") of the common stock.

The IRS provides three "safe harbor" methodologies for setting the FMV of the common shares of private companies.

INDEPENDENT APPRAISAL

A valuation is performed by a qualified independent appraiser, using traditional appraisal methodologies. The valuation is presumed reasonable if it values the stock as of a date that is no more than 12 months before the applicable stock option grant date and if there is no material change from the date of valuation to the grant date. If these

requirements are met, the burden is on the IRS to prove the valuation was "grossly unreasonable."

ILLIQUID START-UP PRESUMPTION

The illiquid start-up presumption is applicable to private companies less than 10 years old, not anticipating sale, IPO or change of control within the next 12 months, and the stock is not subject to a put or call right. If the CEO cannot be absolutely sure the company satisfies all these requirements, the company must use other valuation methodologies. The valuation will be considered reasonable by the IRS, if it is in written form, performed within 12 months of an option grant and performed by a person with significant knowledge and experience or training in performing similar valuations.

BINDING FORMULA PRESUMPTION

This valuation method must be based on the consistent application of a single formula and used for a binding agreement, i.e. buy-sell agreement, both for grant of stock and options, purchases or sales of stock to third parties, conversion of loans in to stock, etc. This method is as a multiple of some tangible benchmark, such as Sales, EBITDA, or Net Income.

If the valuation is performed outside of “safe harbor” the burden of proof falls on a taxpayer. The penalties for Section 409A violations include an immediate tax on vesting, an additional tax of 20%, and penalty interest. Of the three “safe harbor” methods the most practical and advisable is the independent appraisal methodology.



VALUATION METHODOLOGIES

In valuing the FMV of Meetly's common stock, eShares Valuations has considered the three generally accepted valuation approaches as recommended by the American Institute of Certified Public Accountants (AICPA).

In its Valuation of Privately-Held-Company Equity Securities Issued as Compensation publication, the AICPA outlines three approaches to determining fair market value:

MARKET APPROACH

INCOME APPROACH

ASSET APPROACH

MARKET APPROACH

According to the AICPA, the **market approach** is a valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable (that is, similar) assets, liabilities, or a group of assets and liabilities, such as a business. The market approach derives value based on the value implied by these other similar enterprises or transactions. Using this approach, eShares Valuations would examine investments by unrelated parties or examine transactions in enterprises with equity securities similar to Meetly. Within the market approach, eShares considers three valuation methods:

- **Guideline Public Company Method**
- **Guideline Company Transactions Method**
- **Backsolve Method**

GUIDELINE PUBLIC COMPANY METHOD

Relevant market multiples from the guideline comparable public companies are developed using metrics such as revenue and earnings before interest, taxes, depreciation and amortization (EBITDA).

GUIDELINE COMPANY TRANSACTIONS METHOD

The guideline company transaction method uses actual prices paid in merger and acquisition transactions for companies similar to the Company to determine an exit multiple. While useful for certain specific capital structures and situations, the guideline public company and guideline company transactions methods are limited in that "true" comparables are unlikely to exist, especially when valuing privately held, early-stage enterprises.

THE BACKSOLVE METHOD

The backsolve method is useful for valuers when there has been a recent transaction in the company's own securities. At a fundamental level, the backsolve method answers the singular question:

What would the total value of the enterprise need to be, in order for a third-party investor to invest at the given per-share price, accounting for all liquidation preferences and seniorities for all share classes in the enterprise?

In other words, given that an investment occurred, the backsolve method outputs the implied total value of the enterprise if the valuation accounts for all share class rights and preferences, as of the date of the latest financing.

According to the AICPA, the backsolve is the most reliable indicator of enterprise value for early-stage customers, provided that the relevant transactions in the enterprise's shares have occurred at **arm's length**^{*}.

The Backsolve Method considers the various terms of an enterprise's stockholder agreements that would affect the distributions to each class of equity upon a liquidity event as of the future liquidation date, including:

- the level of seniority among securities,
- dividend policy,
- conversion ratios,
- and cash allocations.

^{*}**Arm's length transaction:** A transaction that was entered into by informed but unrelated market participants, simultaneously seeking the best terms possible.

^{*}**Note:** In many situations, the transactions are not done at arm's length. It is still possible to perform the valuation in these cases, but additional considerations need to be made.

INCOME APPROACH

According to the FASB ASC glossary, the Income Approach is defined as a:

"Valuation technique that converts future amounts (for example, cash flows or income and expenses) to a single current (that is, discounted) amount."

This approach finds conceptual support in the basic assumption that the value of an enterprise is represented by the aggregate expectations of future income and cash flows.

DISCOUNTED CASH FLOW METHOD

The income approach converts future cash flows to a single, current discounted amount. The fair value measurement is

estimated on the basis of the value indicated by current market expectations about those future cash flow amounts. The DCF method converts these future cash flows to their present value using a specific discount rate that factors in the time value of money and any measurable level of risks associated with the business.

WACC CALCULATION

The Weighted Average Cost of Capital ("WACC") is the rate of return specific to the enterprise being valued that reflects the risk of investment in said enterprise. In general, the higher the WACC, the higher an investor's expected return would be for an investment in the enterprise. When performing a Discounted Cash Flow analysis, eShares Valuations computes an enterprise-specific WACC using the Capital Asset Pricing Model ("CAPM").

The CAPM formula is defined as follows:

$$R_E = R_F + B * (R_M) + SP + CP$$

Where:

R_e = Return on equity

R_f = Risk-free rate

β = Beta

R_m = Market risk premium

SP = Small company size premium

CP = Company-specific risk premium

SMALL COMPANY RISK PREMIUM

Given that most of the comparable public companies are much larger than the enterprise being valued, we apply an additional risk premium to the cost of equity calculation to reflect the additional premium that investors would require to invest in small cap public stocks.

COMPANY-SPECIFIC RISK PREMIUM

To capture the added risk involved in investing in smaller, less profitable, and less mature companies, an additional company specific risk premium is applied to the cost of equity calculation. This risk premium reflects the additional risk associated with the enterprise's revenue relative to the market at large.

ASSET APPROACH

Among the three valuation approaches discussed, the AICPA considers the Asset Approach in most circumstances to be the weakest valuation method from a conceptual standpoint. Typically this approach would only be used when valuing enterprises that:

- are in the very early stages of development,
- have not yet raised any arms-length financing,
- or when there is a limited (or no) basis for the application of the Income Approach or the Market Approach.

COST TO RECREATE METHOD

This method defines an enterprise's fair market value as the sum total of the enterprise's assets minus the sum total of the corresponding liabilities. In the case that an enterprise's

assets are not sufficiently captured on its balance sheet, the **cost to recreate** method assumes that the enterprise's fair market value is consistent with the replacement cost (i.e. **cost to recreate**) of the enterprise's assets.

EQUITY VALUE ALLOCATION

After calculating the total value of the enterprise, valuers must then allocate the value to the various classes of securities in the capital structure. The generally accepted methods of equity allocation are:

CURRENT VALUE METHOD

OPTION PRICING MODEL

PROBABILITY WEIGHTED EXPECTED RETURN METHOD

CURRENT VALUE METHOD (CVM)

The Current Value Method allocates enterprise value to the various series of an enterprise's preferred stock based on the respective liquidation preferences or conversion values, in accordance with the terms of the enterprise's Articles/ Certificate of Incorporation.

The CVM assumes that the value of the convertible preferred stock is represented by the most favorable claim the holders of preferred stock have on the equity value of the enterprise as of the valuation date.

The CVM is generally only useful in two circumstances:

When an acquisition or dissolution of the enterprise is imminent, and expectations about the future of the enterprise as a going concern are virtually irrelevant.

When the enterprise is at such an early stage of development that little or no progress has yet been made, and/or no significant common equity value has been created above the liquidation preference of a company's preferred shares.

OPTIONS PRICING MODEL

The Options Pricing Model (OPM) treats each share class as a call option on the equity value of the entire firm, with exercise prices based on the liquidation preferences of the preferred stock.

Using the OPM, the common stock is modeled as a call option that gives its owner the right, but not the obligation, to buy the underlying equity value at a predetermined price. The considered "price" of these common-stock "call options" is based on the value of the entire enterprise at specific equity values ("breakpoints"). Thus, the common stock is considered to be a call option with a claim on the equity at an exercise price equal to the remaining value immediately after all share classes with higher liquidation seniority have liquidated. Further discussion of the Options Pricing Model is provided elsewhere in this valuation report.

PROBABILITY WEIGHTED EXPECTED RETURN

The Probability-Weighted Expected Return Method (PWERM) considers various potential liquidity outcomes and assigns probabilities to each in order to arrive at a weighted equity value for the enterprise. Using this approach, the value of a company's common stock is based upon an analysis of

distinct values for the company assuming various possible future events including but not limited to an initial public offering, strategic merger or sale, dissolution/no value to common, or remaining a private company.

Using the PWERM, the per share value of the common stock is based upon the probability-weighted present value of expected future equity values, under each of the possible future event scenarios, as well as the rights and preferences of each share class.

OPTIONS PRICING MODEL

eShares Valuations estimated the fair market value of Meetly common stock using the Options Pricing Model (OPM).

One of the most common AICPA-approved methods to value private companies with complex capital structures is the Options Pricing Model. The Options Pricing Model (OPM) treats each share class as a call option on the equity value of the entire firm, with exercise prices based on the liquidation preferences of the preferred stock. One notable benefit to using the OPM is that it accounts for the economic rights often seen in venture-capital backed preferred shares, including preferred liquidation preferences and payout seniority. In this method, each share class only has value if the funds available for distribution to shareholders exceed the value of the liquidation preferences at the time of a

liquidity event for each of the prior share classes in a company's cap table.

Using the OPM, the common stock is modeled as a call option that gives its owner the right, but not the obligation, to buy the underlying equity value at a predetermined price. The considered "price" of these common-stock "call options" is based on the value of the entire enterprise at specific equity values ("breakpoints"). Thus, the common stock is considered to be a call option with a claim on the equity at an exercise price equal to the remaining value immediately after all share classes with higher liquidation seniority have liquidated. eShares utilizes the Black-Scholes-Merton Options Pricing Model.

OPTIONS PRICING MODEL CONSIDERATIONS

The OPM considers the various terms of an enterprise's stockholder agreements that would affect the distributions to each class of equity upon a liquidity event as of the future liquidation date, including:

- the level of seniority among securities,
- dividend policy,
- conversion ratios,
- and cash allocations.

OPTIONS PRICING MODEL INPUTS

The Options Pricing Model relies on four inputs:

- the total equity value of the enterprise,
- the expected time to exit,
- the risk free rate of interest as of the valuation date,
- the volatility derived from similar publicly traded companies.

The formula for the Options Pricing Model is as follows:

$$C = S_0 e^{-qt} * N(d_1) - X e^{-rt} * N(d_2)$$

Where:

- S_0 = Total equity value
- X = Equity breakpoint value
- q = Continuously compounded dividend yield
- t = Time to exit (years)
- σ = Volatility
- r = Risk free rate

and d_1 and d_2 are defined as:

$$d_1 = \frac{\ln\left(\frac{S_0}{X}\right) + t\left(r - q + \frac{\sigma^2}{2}\right)}{\sigma\sqrt{t}}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

VALUATION ADJUSTMENTS

DISCOUNT FOR LACK OF MARKETABILITY

When valuing closely-held (private) companies, valuers typically apply a discount for lack of marketability (DLOM) to the share price, to account for the fact that private company shares are not as liquid as their public comparable company counterparts. In other words, one should expect to pay less for a closely-held (private) share of stock than that same investor would pay for a publicly-traded, fully liquid security.

Discount for lack of marketability: "An amount or percentage deducted from the value of an ownership interest to reflect the relative absence of marketability."¹

Marketability: "The ability to quickly convert property to cash at minimal cost, with a high degree of certainty of realizing the anticipated amount of proceeds."^{1,2}

WHAT TO CONSIDER

This valuation, in accordance with the parameters set forth in **Mandelbaum v. Commissioner**³, takes into account the following:

- *The value of the subject corporation's privately traded securities vis-a-vis its publicly traded securities (or, if the subject corporation does not have stock that is traded both publicly and privately, the cost of a similar corporation's public and private stock);*

- *an analysis of the subject corporation's financial statements;*
- *the corporation's dividend-paying capacity, its history of paying dividends, and the amount of its prior dividends;*
- *the nature of the corporation, its history, its position in the industry, and its economic outlook;*
- *the corporation's management;*
- *the degree of control transferred with the block of stock to be valued;*
- *any restriction on the transferability of the corporation's stock;*
- *the period of time for which an investor must hold the subject stock to realize a sufficient profit;*
- *the corporation's redemption policy;*

- *the cost of effectuating a public offering of the stock to be valued, e.g., legal, accounting, and underwriting fees.*

SUMMARY OF APPROACHES

In preparing this valuation, we considered number of different approaches to computing the proper Discount for Lack of Marketability, loosely categorizable into the following:

Benchmark study approach Securities-based approaches

¹*International Glossary of Business Valuation Terms, as adopted in 2001 by American Institute of Certified Public Accountants, American Society of Appraisers, Canadian Institute of Chartered Business Valuators, National Association of Certified Valuation Analysts, and The Institute of Business Appraisers.*

²*Shannon P. Pratt, Alina V. Niculita, Valuing a Business, The Analysis and Appraisal of Closely Held Businesses, 5th ed (New York: McGraw Hill, 2008), p.39.*

³*Mandelbaum v. Commissioner, T.C. Memo 1995-255, 36.*

⁴*Securities Act of 1933 (Section 230.144). Note: Because the holder of restricted common stock is prohibited from selling any of the stock for full year (1997-2008, thereafter holding period is six months) and has additional constraints on the amounts that may be sold for an additional year, the restricted stock is significantly less liquid (and therefore less valuable) than its unrestricted counterpart.*

BENCHMARK STUDY APPROACH

This approach estimates the appropriate DLOM based on restricted stock studies, as well as pre-Initial Public Offering (IPO) pricing studies. This valuation considers the pre-IPO pricing studies a generally less-accurate indicator of private company DLOM for smaller, earlier-stage companies.

Restricted stock: unregistered common stock of a corporation identical in every respect to its publicly traded shares, except that it has not been registered, and is therefore, not freely tradable.⁴

We considered the following restricted stock studies because the effect of lack of marketability can be quantified by comparing the sale price of publicly traded shares to the sale price of so-called restricted shares of the same company that are identical in all rights and powers except for their ability to be freely marketed. Restricted stock studies are published,

empirical studies, the most often cited of which are indicated below:

EMPIRICAL STUDY	TIME PERIOD COVERED	MEAN DLOM
SEC overall average ^[a]	Jan 1966 - Jan 1969	25.8%
SEC non-reporting OTC companies ^[a]	Jan 1966 - Jan 1969	32.6%
Gelman ^[b]	Jan 1968 - Dec 1970	33.0%
Trout ^[c]	Jan 1968 - Dec 1972	33.5%
Moroney ^[d]	Jan 1969 - Dec 1972	35.6%
Maher ^[e]	Jan 1969 - Dec 1973	35.4%
Standard Research Consultants ^[f]	Oct 1978 - Jun 1982	45.0% (median)
Willamette Management Associates ^[g]	1981 - 1984	31.2% (median)
Silber ^[h]	Jan 1981 - Dec 1988	33.8%
FMV Opinions, Inc. ^[i]	Jan 1979 - Apr 1992	23.0%
Management Planning, Inc. ^[j]	Jan 1980 - Dec 1996	27.1%
Bruce Johnson Study ^[k]	Jan 1991 - Dec 1995	20.0%
Columbia Financial Advisors ^[l]	Jan 1996 - Apr 1997	21.0%
Columbia Financial Advisors ^[l]	May 1997 - Dec 1998	13.0%

^[a]Discounts Involved in Purchases of Common Stock (1966-1969), Institutional Investor Study Report of the Securities and Exchange Commission, H.R. Do. No. 92-64, Part 5, 92nd Congress, 1st Session, 1971, 2444- 2456.

^[b]Gelman, Milton, An Economist Financial Analyst's Approach to Valuing Stock of a Closely Held Company, Journal of Taxation, June 1972, 353-354.

^[c]Trout, Robert R., Estimation of the Discount Associated with the Transfer of Restricted Securities, Taxes, June 1997, 381-384.

^[d]Moroney, Robert E., Most Courts Overvalue Closely Held Stocks, Taxes, March 1993, 144-154.

^[e]Maher, Michael J., Discounts for Lack-of-marketability for Closely Held Business Interests, Taxes, September 1976, 562-71.

^[f]Pittock, William F., and Stryker, Charles H., Revenue Ruling 77-287 Revisited, SRC Quarterly Reports, Spring 1983.

^[g]Willamette Management Associates study (unpublished)

^[h]Silber, William L., Discounts on Restricted Stock: The Impact of Illiquidity on Stock Prices, Financial Analysts Journal, July-August 1991, 60-64.

^[i]Hall, Lance S., and Timothy C. Polacek, "Strategies for Obtaining the Largest Valuation Discounts," Estate Planning, January/February 1994. pp. 38-44.

^[j]Oliver, Robert P. and Roy H Meyers, "Discounts Seen in Private Placements of Restricted Stock: The Management Planning, Inc., Long-Term Study (1980-1996)" (Chapter 5) in Robert F. Reilly and Robert P. Schweihs, eds, The Handbook of Advanced Business Valuations (New York: McGraw-Hill, 2000).

^[k]Johnson, Bruce, "Restricted Stock Discounts, 1991-95", Shannon Pratt's Business Valuation Update, Vol. 5, No. 3, March 1999, pp. 1-3. "Quantitative Support for Discounts for Lack of Marketability." Business Valuation Review, December, 1999, pp. 152- 155

^[l]CFAI Study, Aschwald, Kathryn F., "Restricted Stock Discounts Decline as Result of 1-Year Holding Period – Studies After 1990 'No Longer Relevant' for Lack of Marketability Discounts", SHANNON PRATT'S BUSINESS VALUATION UPDATE, Vol. 6, No. 5, May 2000, pp. 1-5.

SECURITIES-BASED APPROACHES

Securities-based approaches to computing Discount for Lack of Marketability rely on firmly-established stock option pricing theory. In compiling this valuation, we considered three distinct stock option pricing models - **The Longstaff Approach**, **The Chaffe Approach**, and **The Finnerty Approach**

THE LONGSTAFF APPROACH⁵

The Longstaff Approach relies on stock option pricing theory to estimate the DLOM for a privately held company based on the price of a “lookback” option. A “lookback” option differs from most other options in that the holder can look back at the end of the option’s life and retroactively exercise the option at the highest stock price (for a put option) during the holding period. The Longstaff study assumes that an investor has a single-security portfolio, perfect market timing, and trading restrictions that prevent the security from being sold at the optimal time. The value of marketability, based on these assumptions, is the payoff from an option on the maximum value of the security, where the strike price of the option is stochastic.

The Longstaff model should be considered the theoretical *upper bound* on an enterprise's DLOM, and it generally *overstates* the proper DLOM.

THE LONGSTAFF MODEL

$$Discount = \left(2 + \frac{\sigma^2 T}{2}\right) N\left(\frac{\sqrt{\sigma^2 T}}{2}\right) + \sqrt{\frac{\sigma^2 T}{2\pi}} \exp\left(-\frac{\sigma^2 T}{8}\right) - 1$$

Where:

T = time to exit

σ = volatility

$N(\cdot)$ = Standard normal cumulative distribution function

LONGSTAFF APPROACH - REPRESENTATIVE DLOMS

	Volatility	25.00%	50.00%	75.00%	100.00%	125.00%
Time to Exit						
	1	21.6%	46.6%	75.3%	108.1%	145.2%
	2	31.5%	70.1%	116.7%	172.0%	236.9%
	3	39.5%	90.0%	153.0%	229.9%	321.9%
	4	46.6%	108.1%	186.8%	284.9%	404.0%
	5	53.0%	125.0%	219.3%	338.4%	484.7%

Note: The Longstaff model outputs DLoms in excess of 100% at very low volatilities, and as such is generally considered an inaccurate overestimation of a proper DLom. Thus, the Longstaff model should only be used as a guideline, but in most cases should not be used as the sole method to calculate a given DLom.

⁵ Longstaff, Francis A., "How Much Can Marketability Affect Security Values?", *The Journal of Finance*, Vol. L, No. 5 (1995), pp.1767-1774.

THE CHAFFE APPROACH⁶

In 1993, David Chaffe authored an option pricing study in which he related the cost to purchase a European put option to the Discount for Lack of Marketability. In Chaffe's estimation, *“if one holds restricted or non-marketable stock and purchases an option to sell those shares at the free market price, the holder has, in effect, purchased marketability for those shares. The price of that put is the discount for lack of marketability.”* Chaffe relied on the Black Scholes Option Pricing Model for a put option to determine the cost or price of the put option, and defined the DLOM as the cost of the put option divided by the market price.

According to Chaffe, this approach should be considered the theoretical **lower bound** on an enterprise's DLOM, since a European put option pricing formula does not take into account early exercise.

THE CHAFFE MODEL

$$v\sqrt{T} = \sqrt{\sigma^2 T + \ln[2(e^{\sigma^2 T} - \sigma^{2T} - 1)] - 2 \ln(e^{\sigma^2 T} - 1)}$$

Where:

S_0 = total equity value

X = equity breakpoint value

q = continuously compounded dividend yield

t = time to expiration (% of year)

σ = volatility

r = risk-free rate

$N(\cdot)$ = standard normal cumulative distribution function

CHAFFE APPROACH - REPRESENTATIVE DLOMS

	Volatility	25.00%	50.00%	75.00%	100.00%	125.00%
Time to Exit						
	1	9.25%	18.97%	27.48%	37.40%	45.86%
	2	12.61%	26.01%	37.41%	50.11%	60.25%
	3	14.97%	30.98%	44.20%	58.28%	68.81%
	4	16.81%	34.84%	49.30%	64.02%	74.35%
	5	18.32%	37.97%	53.50%	68.20%	78.00%

⁶ David B.H. Chaffe III, "Option Pricing as a Proxy for Discount for Lack of Marketability in Private Company Valuations," *Business Valuation Review* (December 1993): 182-6.
(Model corrected and updated in 2009; the eShares valuation uses the corrected, updated model)

THE FINNERTY APPROACH⁷

In 2002, John D. Finnerty conducted an extension of the Longstaff study, that “tests the relative importance of transfer restrictions on the one hand and information and equity ownership concentration effects on the other in explaining private placement discounts.” However, unlike Longstaff, Finnerty did not assume that investors have perfect market timing ability. Instead, Finnerty modeled the DLOM as the value of an average strike put option. In general, the Finnerty model generates DLOMs that are relatively close to the average DLOMs reported in the empirical studies mentioned above.

THE FINNERTY MODEL

$$D(T) = V_0 e^{-qt} [\mathcal{N}(v\sqrt{T}/2) - \mathcal{N}(-v\sqrt{T}/2)]$$

$$v\sqrt{T} = \sqrt{\sigma^2 T + \ln[2(e^{\sigma^2 T} - \sigma^{2T} - 1)] - 2\ln(e^{\sigma^2 T} - 1)}$$

Where:

$D(T)$ = Discount for Lack of Marketability

V_0 = The value of the share of common stock without transfer restrictions

q = Continuously compounded dividend yield

t = Time to expiration (% of year)

σ = Volatility

r = Risk-free rate

e = The mathematical constant = 2.71828...

$\mathcal{N}(\cdot)$ = standard normal cumulative distribution function

FINNERTY APPROACH - REPRESENTATIVE DLOMS

	Volatility	25.00%	50.00%	75.00%	100.00%	125.00%
Time to Exit						
	1	5.72%	11.24%	16.34%	20.85%	24.62%
	2	8.04%	15.50%	21.84%	26.63%	29.74%
	3	9.79%	18.52%	25.26%	29.50%	31.49%
	4	11.24%	20.85%	27.54%	30.95%	32.05%
	5	12.49%	22.73%	29.10%	31.66%	32.22%

Note: The Finnerty model has a mathematical asymptote at approximately 32%. Thus, for companies at higher volatilities, this model may understate the proper DLOM.

⁷ John D. Finnerty, "The Impact of Transfer Restrictions on Stock Prices." Analysis Group/ Economics (October 2002).