HOW A COMPANY IS VALUED –

An Overview of Valuation Methods and Their Application

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Investors in publicly-traded companies have the luxury of knowing the value of their investment at virtually any time. An internet connection and a few clicks of a mouse are all its takes to get an up-to-date stock quote. Of all U.S. companies, however, less than 1% are publicly-traded, meaning that the vast majority of companies are privately-held. Investors in privately-held companies do not have such a readily available value for their ownership interests. How are values of privately-held businesses determined then? This eBook will answer that question by examining a key component of how ownership interests in privately-held companies are valued.

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Levels of Value – All Values Are Not Created Equal

All values are not created equal – for example a company's "equity value" can be vastly different than its "enterprise value." Therefore, before beginning any valuation analysis, it is important to establish what type of value is being determined.

Common valuation terms that relate to a company's capital structure are equity value, enterprise value and invested capital value, each of which are discussed in greater detail below:

Equity Value – Equity value is the value of a company allocable to its equity investors. Equity value is the most commonly-determined value as it represents the value of an investor's ownership interest in a company.

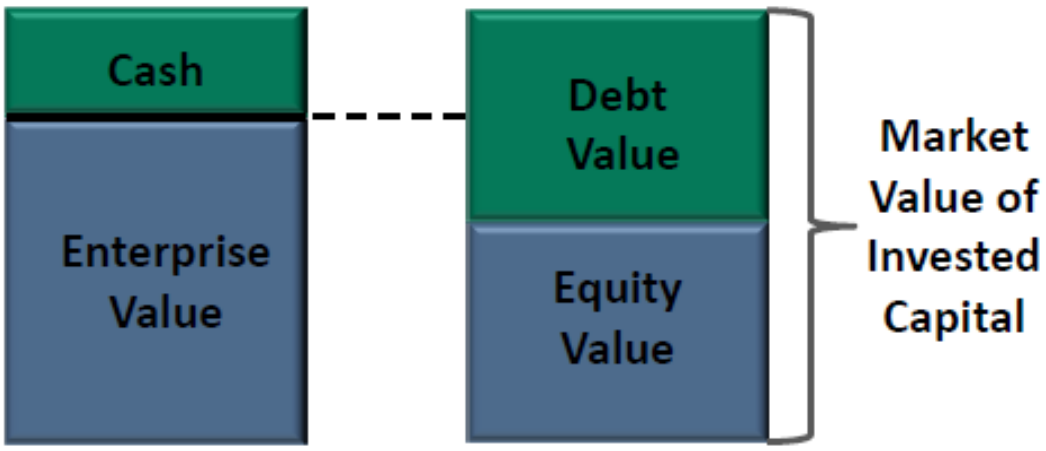
Invested Capital Value – Invested capital value represents the combined value of a company's interest-bearing debt and equity. Invested capital value provides an indication of the value of the company as a whole, regardless of how it may be financed. A/P, accrued expenses and other non-debt liabilities are typically not considered part of "interest-bearing debt" for the adjustment from equity value to invested capital value (and vice versa) because these liabilities are part of a company's net working capital, not its equity/debt capital structure.

Enterprise Value – Enterprise value is calculated based on the following formula:

Enterprise Value = Equity Value + Debt - Cash

Stated differently, enterprise value is equal to the company's invested capital less its cash. Enterprise value is often used when determining EBITDA and revenue-based multiples because it removes the impact of how much cash a company is carrying (which is simply a financing decision) in determining the value of its operations.

The figure below provides a visual reconciliation between equity value and enterprise value:



It is critical to understand that these values measure different components of a company's capital structure, but that they are interrelated. This is particularly important if a value is determined at one level and needs to be reconciled/adjusted to another level. For example, when the market approach is applied, it oftentimes results in an enterprise or invested capital value. Therefore, it is necessary to adjust the resultant value for the interest-bearing debt (and possibly cash) of the company being valued to arrive at its equity value. While EBITDA multiples are often thrown around in conversation, it is important to note that the value determined when applying an EBITDA multiple is generally an enterprise value, so confusing this with an equity value may result in an investor significantly overestimating the value of his or her ownership interest (particularly for companies with meaningful debt balances).

The Asset Approach to Valuation

The most commonly utilized asset-based approach to valuation is the Adjusted Net Asset Method. This balance sheet-focused method is used to value a company based on the difference between the fair market value of its assets and liabilities. Under this method, the assets and liabilities of the company are adjusted from book value to their fair market value, as presented in the example below:

Adjusted Net Asset Method Example

	HISTORICAL	NORMALIZING ADJUSTMENTS		ECONOMIC
	ASSETS			
Current Assets				
Cash	$ 300,000	$ -		$ 300,000
Accounts Receivable	5,500,000	-		5,500,000
Inventories	2,500,000	-		2,500,000
	8,300,000	-		8,300,000
Fixed Assets				
Plant Equipment	3,500,000	(250,000)	1	3,250,000
Office Equipment	500,000	(50,000)	1	450,000
Autos and Trucks	250,000	(150,000)	1	100,000
	4,250,000	(450,000)		3,800,000
Less: Accumulated Depreciation	(750,000)	750,000	2	-
	3,500,000	300,000		3,800,000
Other Assets				
Deposits	200,000	-		200,000
TOTAL ASSETS	$ 12,000,000	$ 300,000		$ 12,300,000
	LIABILITIES AND SHAREHOLDERS' EQUITY			
Current Liabilities				
Accounts Payable	$ 4,000,000	$ -		$ 4,000,000
Accrued Expenses	1,500,000	-		1,500,000
Line of Credit	2,000,000	-		2,000,000
Current Portion of Interest-Bearing Debt	500,000	-		500,000
	8,000,000	-		8,000,000
Long-Term Liabilities				
Long-Term Debt	1,000,000	-		1,000,000
TOTAL LIABILITIES	9,000,000	-		9,000,000
RESIDUAL EQUITY	$ 3,000,000	$ 300,000		$ 3,300,000
RESIDUAL EQUITY (ROUNDED)				**$ 3,300,000**

Normalizing Adjustments:

1 To adjust each class of assets to its fair market value

2 To remove the accumulated depreciation on the Company's books since each fixed asset class has been adjusted to fair market value

As in the table on the previous page, adjustments are made to the company's historical balance sheet in order to present each asset and liability item at its respective fair market value. Examples of potential normalizing adjustments include:

- Adjusting fixed assets to their respective fair market values
- Reducing accounts receivable for potential uncollectible balances if an allowance for doubtful accounts has not been established or if it is not sufficient to cover the potentially uncollectible amount
- Reflecting any unrecorded liabilities such as potential legal settlements or judgments

Consideration of the Adjusted Net Asset Method is typically most appropriate when:

- Valuing a holding company or a capital-intensive company
- Losses are continually generated by the business
- Valuation methodologies based on a company's net income or cash flow levels indicate a value lower than its adjusted net asset value

One needs to keep in mind that when income or market-based valuation approaches indicate values higher than the Adjusted Net Asset Method, it is typically dismissed in reaching the concluded value of the company. This is because income and market-based valuation approaches provide a much more accurate reflection of any goodwill or intangible value that the company may have.

The Adjusted Net Asset Method does not necessitate the actual termination or liquidation of the business (renowned valuation expert Shannon Pratt believes some analysts mistakenly confuse the use of an asset-based approach with a liquidation premise of value). Rather, the Adjusted Net Asset Method can be used with all premises of value including value-in-use as a going concern business enterprise.

To summarize, the Adjusted Net Asset Method is a balance sheet-based approach to valuation that is relied upon most often for holding companies and companies generating losses (or only modest levels of income in relation to their net assets).

The Income Approach to Valuation

There are two income-based approaches that are primarily used when valuing a business:

- Capitalization of Cash Flow Method
- Discounted Cash Flow Method

These methods are used to value a company based on the amount of income the company is expected to generate in the future.

The Capitalization of Cash Flow Method is most often used when a company is expected to have a relatively stable level of margins and growth in the future – it effectively takes a single benefit stream and assumes that it grows at a steady rate into perpetuity.

The Discounted Cash Flow Method is more flexible than the Capitalization of Cash Flow Method and allows for variation in margins, growth rates, debt repayments and other items in future years that may not remain static.

As a result, the Capitalization of Cash Flow Method is typically applied more often when valuing mature companies with modest future growth expectations. The Discounted Cash Flow Method is used when future growth rates or margins are expected to vary or when modeling the impact of debt repayments in future years (although it can still be used in same sort of "steady growth" situations in which the Capitalization of Cash Flow Method can be applied).

Capitalization of Cash Flow Method

The Capitalization of Cash Flow method values a business based on an expected cash flow stream, capitalized by a risk-adjusted rate of return. This single-period capitalization approach is most appropriate when a company's current or historical level of operations is believed to be representative of future operations and the company is expected to grow at a relatively stable and modest rate. The steps taken in applying the Capitalization of Cash Flow method include determining a sustainable earnings base (i.e. benefit stream), making the necessary adjustments to convert projected earnings into projected cash flow (adjusting for capital expenditures, depreciation, changes in net working capital and changes in interest-bearing debt), developing an appropriate capitalization rate, and applying the capitalization rate to the cash flow base to arrive at a conclusion of the fair market value the company.

An example of a capitalization of cash flow analysis is presented below:

Capitalization of Cash Flow Method Example		
Weighted-Average Normalized After-Tax Net Income	$	1,500,000
Adjustments to Determine Cash Flow to Equity:		
Depreciation		150,000
Capital Expenditures		(155,000)
Change in Net Working Capital		(100,000)
Change in Long-Term Debt		-
Estimated Sustainable, Distributable Cash Flow		1,395,000
Times: (1 + Long-Term Growth Rate)		1.03
After-Tax Distributable Cash Flow Projected for the Following Year		1,436,850
Divided by: Capitalization Rate		20.0%
Times: Mid-Period Adjustment Factor		109.1%
Value of the Company's Equity	$	7,838,020
Value of the Company's Equity (Rounded)	**$**	**7,800,000**

To summarize, the Capitalization of Cash Flow Method is an income-based approach to valuation that is based on the company's ability to generate cash flows in the future.

Discounted Cash Flow Method

The Discounted Cash Flow Method is an income-based approach to valuation that is based upon the theory that the value of a business is equal to the present value of its projected future benefits (including the present value of its terminal value). The terminal value does not assume the actual termination or liquidation of the business, but rather represents the point in time when the projected cash flows level off or flatten (which is assumed to continue into perpetuity). The amounts for the projected cash flows and the terminal value are discounted to the valuation date using an appropriate discount rate, which encompasses the risks specific to investing in the specific company being valued. Inherent in this method is the incorporation or development of projections of the future operating results of the company being valued.

Distributable cash flow is used as the benefit stream because it represents the earnings available for distribution to investors after considering the reinvestment required for a company's future growth. The discounted cash flow method can be based on the cash flows to either a company's equity or invested capital (which is equal to the sum of a company's debt and equity). A "direct to equity" discounted cash flow method arrives directly at an equity value of a company while a "debt-free" discounted cash flow method arrives at the invested capital value of a company, from which debt must be subtracted to arrive at the company's equity value.

A brief summary of some of the primary differences between a "direct to equity" and a "debt-free" discounted cash flow analysis are presented below:

Differences Between "Direct to Equity" and "Debt-Free" DCFs

Characteristic	Direct to Equity	Debt-Free
Interest Expense and Changes in Debt	Factored into cash flow stream to determine cash flow to equity investors	Excluded from cash flow stream to determine cash flow to invested capital (debt and equity)
Discount Rate	Equity discount rate	Weighted-average cost of capital (WACC) - Takes into account both debt and equity rates of return
Resultant Value	Equity value	Invested capital value (equity + debt)

An example of a "direct to equity" discounted cash flow analysis is presented below:

Discounted Cash Flow Method Example

	Year 1	*Year 2*	*Year 3*	*Year 4*	*Year 5*	*Year 6*
Growth Rate		*15.0%*	*15.0%*	*10.0%*	*5.0%*	*3.0%*
Revenues	$ 30,000,000	$ 34,500,000	$ 39,675,000	$ 43,642,500	$ 45,824,625	$ 47,199,364
EBITDA Margin	10.0%	10.5%	11.0%	11.5%	12.0%	12.0%
EBITDA	3,000,000	3,622,500	4,364,250	5,018,888	5,498,955	5,663,924
Other Expenses						
Depreciation and Amortization Expense	(150,000)	(172,500)	(198,375)	(218,213)	(229,124)	(235,998)
Interest Expense	(121,000)	(117,000)	(113,000)	(117,000)	(125,000)	(130,000)
	(271,000)	(289,500)	(311,375)	(335,213)	(354,124)	(365,998)
Pre-Tax Net Income	2,729,000	3,333,000	4,052,875	4,683,675	5,144,831	5,297,926
Income Taxes (35%)	(955,150)	(1,166,550)	(1,418,506)	(1,639,286)	(1,800,691)	(1,854,274)
After-Tax Net Income	1,773,850	2,166,450	2,634,369	3,044,389	3,344,140	3,443,652
Adjustments to Determine Cash Flow						
Depreciation and Amortization	150,000	172,500	198,375	218,213	229,124	235,998
Capital Expenditures	(172,500)	(198,375)	(228,131)	(240,034)	(240,580)	(243,078)
Change in Non-Cash, Non-Debt Working Capital	(200,000)	(450,000)	(517,500)	(396,750)	(218,213)	(137,473)
Change in Debt	(100,000)	(140,000)	(86,000)	317,400	174,570	109,979
Net Cash Flow to Equity	**1,451,350**	**1,550,575**	**2,001,113**	**2,943,218**	**3,289,041**	**3,409,078**
x Present value factor @ 23.00%	0.9017	0.7331	0.5960	0.4845	0.3939	0.3203
Months for PV factor	6.0	18.0	30.0	42.0	54.0	66.0
Years for PV factor	0.500	1.500	2.500	3.500	4.500	5.500
Present Value Net Cash Flows	**$ 1,308,682**	**$ 1,136,727**	**$ 1,192,663**	**$ 1,425,989**	**$ 1,295,553**	**$ 1,091,928**

Summary	
Sum of PV Net Cash Flows	$ 7,451,542
Plus: Residual Value	5,623,428
Indicated Value of Equity	**$ 13,074,970**
Indicated Value of Equity (Rounded)	**$ 13,100,000**

Residual Value	
Year 6 Cash Flow	$ 3,409,078
x Growth Factor	1.03
Available Cash Flow	3,511,350
x Residual Multiple	5.0000
	17,556,752
x PV Factor	0.3203
= Residual Value	$ 5,623,428

To summarize, the Discounted Cash Flow Method is an income-based approach to valuation that is based on the company's ability to generate cash flows in the future.

The Market Approach to Valuation

There are two market approaches that are primarily used when valuing a business:

- Guideline Transaction Method
- Guideline Public Company Method

These methods are used to value a company based on the pricing multiples observed for similar companies that were sold or are publicly-traded.

Guideline Transaction Method

The Guideline Transaction Method values a business based on pricing multiples derived from the sale of companies that are similar to the subject company.

The primary steps in the Guideline Transaction Method include:

1. Finding transactions involving the purchase of comparable companies
2. Selecting the transactions that closely mirror the company's operations and which occurred in similar industry and economic conditions
3. Applying the indicated pricing multiples from the representative transactions

Valuation experts typically subscribe to databases that allow them to perform searches for comparable transactions. The companies involved in the guideline transactions typically differ from the subject company in their respective stages of development and size, but they should have comparable operational characteristics and financial risks. The comparable transactions also reflect the economic conditions of the industries in which the subject company operates. Thus, the comparative analysis to the subject company being valued is based on the performance and characteristics of the sample as a whole rather than on any individual transaction selected.

Once a population of guideline transactions is identified, some valuation experts also analyze transaction subsets that focus on specific groups of transactions such as companies of similar size, companies with similar margins, and transactions that have occurred most recently.

It should be noted that the calculated transaction multiples are typically based on the enterprise value of the purchased companies, meaning that we arrive at an enterprise value of the subject company when using the Guideline Transaction Method. Enterprise value incorporates all of a company's operating assets,

except for cash, and includes working capital, fixed assets and intangible assets. Because enterprise value indicates the value of a company's equity and interest-bearing debt (excluding cash), one must subtract debt and add cash to the calculated enterprise value to arrive at the company's equity value.

An example of the Guideline Transaction Method is presented below:

Transaction Multiple Summary

SIC Codes:

Comparable Company SIC Codes

Business Description	Sale Date	Enterprise Value (EV)	Net Sales	EV Multiple of Net Sales	EBITDA	EV Multiple of EBITDA	EBITDA Profit Margin
Comparable Transaction #1	xx/xx/xx	$ 763,700,000	$ 765,187,000	1.00	$ 71,803,000	10.64	9.4%
Comparable Transaction #2	xx/xx/xx	53,000	315,469	0.17	n/a	n/a	n/a
Comparable Transaction #3	xx/xx/xx	14,323,000	13,498,204	1.06	883,442	16.21	6.5%
Comparable Transaction #4	xx/xx/xx	69,200,000	105,250,111	0.66	10,486,001	6.60	10.0%
Comparable Transaction #5	xx/xx/xx	85,000,000	167,900,000	0.51	n/a	n/a	n/a
Comparable Transaction #6	xx/xx/xx	1,600,000	2,502,950	0.64	(354,548)	n/m	(14.2%)
Comparable Transaction #7	xx/xx/xx	83,000,000	67,396,000	1.23	14,217,000	5.84	21.1%
Comparable Transaction #8	xx/xx/xx	7,692,000	9,589,584	0.80	1,307,959	5.88	13.6%
Comparable Transaction #9	xx/xx/xx	33,250,000	125,163,000	0.27	5,605,000	5.93	4.5%
Comparable Transaction #10	xx/xx/xx	1,600,000	1,497,670	1.07	254,699	6.28	17.0%
Comparable Transaction #11	xx/xx/xx	216,000,000	130,222,000	1.66	26,751,100	8.07	20.5%
Comparable Transaction #12	xx/xx/xx	92,200,000	43,760,000	2.11	16,342,000	5.64	37.3%
Comparable Transaction #13	xx/xx/xx	190,000	250,594	0.76	(37,591)	n/m	(15.0%)
Comparable Transaction #14	xx/xx/xx	15,000,000	18,581,571	0.81	1,862,110	8.06	10.0%
Comparable Transaction #15	xx/xx/xx	250,000	297,417	0.84	39,452	6.34	13.3%
Comparable Transaction #16	xx/xx/xx	166,750,000	53,156,587	3.14	12,129,868	13.75	22.8%
Comparable Transaction #17	xx/xx/xx	227,700,000	325,904,000	0.70	39,428,000	5.78	12.1%
Comparable Transaction #18	xx/xx/xx	236,147,000	681,869,000	0.35	31,650,400	7.46	4.6%
Comparable Transaction #19	xx/xx/xx	63,000,000	100,800,000	0.63	9,535,550	6.61	9.5%
Comparable Transaction #20	xx/xx/xx	70,831,000	91,214,000	0.78	n/a	n/a	n/a
Comparable Transaction #21	xx/xx/xx	15,861,000	23,250,150	0.68	4,255,871	3.73	18.3%
Comparable Transaction #22	xx/xx/xx	25,987,000	36,365,870	0.71	3,469,440	7.49	9.5%
Comparable Transaction #23	xx/xx/xx	297,000,000	128,000,000	2.32	34,251,000	8.67	26.8%
Comparable Transaction #24	xx/xx/xx	1,405,000	827,000	1.70	309,000	4.55	37.4%
Comparable Transaction #25	xx/xx/xx	3,137,000,000	2,234,321,000	1.40	328,932,000	9.54	14.7%
Comparable Transaction #26	xx/xx/xx	28,980,000	21,897,721	1.32	5,654,446	5.13	25.8%
High		**$ 3,137,000,000**	**$ 2,234,321,000**	**3.14**	**$ 328,932,000**	**16.21**	**37.4%**
Upper Quartile		**148,112,500**	**127,290,750**	**1.30**	**21,546,550**	**8.07**	**20.8%**
Median		**48,125,000**	**48,458,294**	**0.80**	**5,654,446**	**6.60**	**13.3%**
Lower Quartile		**9,349,750**	**10,566,739**	**0.66**	**1,095,701**	**5.84**	**9.4%**
Low		**53,000**	**250,594**	**0.17**	**(354,548)**	**3.73**	**(15.0%)**

Transaction Multiple Analysis

	Amount	EBITDA Profit Margin	Selected Guideline Multiples			Indicated Enterprise Value		
Revenue Multiples								
TTM Revenues	$ 27,000,000	9.8%	0.60	to	0.70	**$ 16,200,000**	to	**$ 18,900,000**
EBITDA Multiples								
TTM EBITDA	2,650,000		6.00	to	7.00	**15,900,000**	to	**18,550,000**

Valuation Analysis

Concluded Enterprise Value of the Company	**$ 17,500,000**
Plus: Cash	300,000
Less: Interest-Bearing Debt	(3,500,000)
Equity Value of the Company (Fair Market Value)	**$ 14,300,000**
Equity Value of the Company (Rounded)	**$ 14,300,000**

Note that actual analyses may include multiple transaction segments (size, profitability, time, etc.) and may include adjustments for potential control and synergy factors reflected in the guideline transaction multiples

To summarize, the Guideline Transaction Method is a market-based approach to valuation that is based on the pricing multiples derived from comparable transactions.

Guideline Public Company Method

The Guideline Public Company Method values a business based on trading multiples derived from publicly traded companies that are similar to the subject company.

The steps in applying the Guideline Public Company Method include:

1. Identifying comparable public companies
2. Adjusting the guideline public company multiples for differences in the size and risk of these companies compared to the subject company
3. Applying the adjusted pricing multiples from the representative companies

Ideally, the guideline public companies selected for analysis compete in the same industry as the subject company. When such publicly-traded companies do not exist (or when only a small number of them exist), other companies with similar underlying characteristics such as markets serviced, growth, risks or other relevant factors can be considered – exact comparability is not required under this method of valuation, although a closer comparable is preferred.

As mentioned above, the guideline public company multiples may be adjusted for differences in the size and risk of the guideline companies compared to the subject company being valued. Typically, this results in a downward adjustment to the guideline public company multiples.

Similar to the Guideline Transaction Method, the guideline public companies differ from the subject company in their respective stages of development and size, but they have comparable operational models and financial risks. They also reflect the economic conditions of the industries in which the subject company operates. Thus, the comparative analysis to the subject company being valued is based on the performance and characteristics of the sample as a whole rather than on any individual guideline company selected.

Also similar to the Guideline Transaction Method, the calculated multiples are often based on the enterprise values of the guideline public companies, meaning that we arrive at an enterprise value of the subject company when using the Guideline Public Company Method. Therefore, one must subtract debt and add cash to the calculated enterprise value to arrive at the company's equity value.

An example of the Guideline Public Company Method is presented below:

Guideline Public Company Multiple Summary

SIC Code:

Comparable Company SIC Codes

Guideline Company	Exchange	Market Value of Equity	Enterprise Value	Net Sales	Multiple of Net Sales	EBITDA	Multiple of EBITDA	EBITDA Margin	Multiple Adjustment Factor	Adjusted EV Multiple of Net Sales	Adjusted EV Multiple of EBITDA
									Adjusted Multiples		
Guideline Company #1	NASDAQ	$ 622,777	$ 725,262	$ 2,214,861	0.33	$ 97,917	7.41	4.4%	75.0%	0.25	5.56
Guideline Company #2	NASDAQ	635,312	525,157	390,087	1.35	(10,552)	n/m	(2.7%)	75.0%	1.01	n/m
Guideline Company #3	NYSE	17,941,463	22,298,263	9,702,700	2.30	2,338,000	9.54	24.1%	75.0%	1.72	7.15
Guideline Company #4	NYSE	4,576,200	4,958,007	2,869,005	1.73	484,593	10.23	16.9%	75.0%	1.30	7.67
Guideline Company #5	NASDAQ	5,659,600	6,802,753	8,231,260	0.83	800,570	8.50	9.7%	75.0%	0.62	6.37
Guideline Company #6	NYSE	6,926,653	9,197,653	6,763,000	1.36	1,001,000	9.19	14.8%	75.0%	1.02	6.89
Guideline Company #7	NYSE	5,351,374	6,172,374	7,178,000	0.86	1,294,000	4.77	18.0%	75.0%	0.64	3.58
Guideline Company #8	NYSE	456,726	753,290	2,155,792	0.35	94,848	7.94	4.4%	75.0%	0.26	5.96
Guideline Company #9	NYSE	2,391,948	2,355,048	1,392,400	1.69	247,300	9.52	17.8%	75.0%	1.27	7.14
Guideline Company #10	NYSE	2,357,461	5,863,461	11,221,000	0.52	835,000	7.02	7.4%	75.0%	0.39	5.27
Guideline Company #11	NAS	1,049,873	1,566,631	1,010,487	1.55	171,149	9.15	16.9%	75.0%	1.16	6.87
Guideline Company #12	NYSE	651,468	955,389	1,437,479	0.66	126,584	7.55	8.8%	75.0%	0.50	5.66
Guideline Company #13	NASDAQ	141,121	131,803	296,479	0.44	39,045	3.38	13.2%	75.0%	0.33	2.53
Guideline Company #14	NYSE	18,497,840	21,518,840	51,035,000	0.42	4,929,000	4.37	9.7%	75.0%	0.32	3.27
Guideline Company #15	NYSE	412,409	479,638	755,654	0.63	52,622	9.11	7.0%	75.0%	0.48	6.84
Guideline Company #16	NAS	8,695	5,971	9,651	0.62	(2,244)	n/m	(23.3%)	75.0%	0.46	n/m
Guideline Company #17	NYSE	1,025,640	1,540,740	2,863,500	0.54	286,600	5.38	10.0%	75.0%	0.40	4.03
Guideline Company #18	NYSE	31,912,859	38,693,859	11,252,000	3.44	1,752,000	22.09	15.6%	75.0%	2.58	16.56
Guideline Company #19	NYSE	34,068,011	55,232,011	59,985,000	0.92	4,378,000	12.62	7.3%	75.0%	0.69	9.46
Guideline Company #20	NYSE	3,392,847	3,377,347	3,211,900	1.05	499,400	6.76	15.5%	75.0%	0.79	5.07
				High	**3.44**		**22.09**	**24.1%**	**High**	**2.58**	**16.56**
				Upper Quartile	**1.41**		**9.44**	**15.9%**	**Upper Quartile**	**1.06**	**7.08**
				Median	**0.84**		**8.22**	**9.9%**	**Median**	**0.63**	**6.17**
				Lower Quartile	**0.53**		**6.83**	**7.2%**	**Lower Quartile**	**0.40**	**5.12**
				Low	**0.33**		**3.38**	**(23.3%)**	**Low**	**0.25**	**2.53**

All numbers above in thousands

Public Company Multiple Analysis

	Amount	EBITDA Profit Margin	Selected Guideline Multiples			Indicated Enterprise Value (EV)		
Revenue Multiples								
TTM Revenues	$ 27,000,000	9.8%	0.60	to	0.65	**$ 16,200,000**	to	**$ 17,550,000**
EBITDA Multiples								
TTM EBITDA	2,650,000		5.50	to	6.50	**14,575,000**	to	**17,225,000**

Valuation Analysis

Concluded Enterprise Value of the Company (EV) (rounded)	**$ 16,500,000**
Plus: Cash	300,000
Less: Interest-Bearing Debt	(3,500,000)
Equity Value of the Company	$ 13,300,000
Equity Value of the Company (Rounded)	**$ 13,300,000**

To summarize, the Guideline Public Company Method is a market-based approach to valuation that is based on the pricing multiples derived from comparable public companies.

An Explanation of Discounts for Lack of Control and Marketability

Before a final conclusion of value can be rendered, the nature of the ownership interest being valued must be considered. The value of an ownership interest is influenced by many of its characteristics, including marketability and control, which can have a meaningful impact on the concluded value of an ownership interest.

Lack of Control

Whether or not the ownership interest being valued has control over the subject company can have a meaningful impact on its value. Controlling owners have the ability to:

- Elect directors or appoint management
- Set levels of management compensation and other perks
- Determine cash dividends/distributions
- Set company policies or business course
- Purchase or sell assets
- Determine when and how to sell the company

Ownership of a non-controlling interest in a company does not have the ability to unilaterally direct the items above, which generally makes it less valuable than a controlling ownership interest.

The impact of lack of control on the value of an ownership interest is typically reflected in one of two ways:

1. **Benefit Stream** – The benefit streams used in the income and market approaches are not adjusted for control-related items (such as overcompensation of officers or discretionary expenses of the owners that are run through the company), so the resultant values are deemed to be non-controlling in nature.

2. **Discount for Lack of Control** – If the valuation methodologies applied arrive at the value of a controlling ownership interest (such as the Adjusted Net Asset Method or income/market-based approaches that include adjustments for control-related items in the benefit stream), a lack of control discount can be applied to arrive at a non-controlling value.

Lack of Marketability

There are certain marketability differences between an ownership interest in a privately-held company and an ownership interest in the stock of a publicly-traded company. An owner of publicly-traded securities can sell that holding on virtually a moment's notice and receive cash, net of brokerage fees, within several working days.

This would not be the case with an ownership interest in a privately-held company. Consequently, liquidating a position in a privately-held company is a more costly, uncertain and time-consuming process than selling the stock of a publicly-traded entity. An investment in which the owner can achieve liquidity in a timely fashion is worth more than an investment in which the owner cannot sell the investment quickly. Privately-held companies sell at a discount that reflects the additional costs, increased uncertainty and longer time commitments associated with selling these types of investments.

1. **Controlling Ownership Interests** – Controlling owners have the ability to arrange for the sale of a company at their discretion. Typically, there is still some risk associated with identifying potential buyers and negotiating a deal, as well as the value of the company changing during that time period, which is not encountered when selling the stock of a publicly-traded company. As a result, discounts for lack of marketability for controlling ownership interests (if any) are lower in comparison to those applied to non-controlling ownership interests.

2. **Non-Controlling Ownership Interests** – The lack of marketability discounts associated with non-controlling ownership interests are significantly higher than those applicable to controlling ownership interests. Data sources frequently used to compute lack of marketability discounts for non-controlling ownership interests in privately-held entities are as follows:

    a) **Empirical Studies –** Restricted stock studies, pre-IPO studies, and long-term equity anticipation securities (LEAPS) studies are often used to estimate the discount for lack of marketability for privately-held companies.

    b) **Option Models –** Theoretical option-based models are used to estimate the discount for lack of marketability based on the estimated holding period and volatility of an investment. These models assume that the cost to purchase a put option relates directly to the measurement of the discount for lack of marketability.

    c) **Qualitative Factors –** Qualitative factors specific to the company being valued are also typically considered, such as those identified in *Bernard Mandelbaum, et al. v. Commissioner*.

It is not unusual in the valuation of a non-controlling ownership interest in a privately-held company for the resultant value to be 50%-80% of the value of the company on a controlling, fully-marketable basis. Therefore, the consideration of discounts for lack of control and lack of marketability are important in any valuation analysis, particularly those involving non-controlling ownership interests in privately-held companies.

How Multiple Valuation Methods Are Reconciled to Reach the Concluded Value of a Company

The final step in the valuation of a company is reconciling the values indicated by the various valuation approaches utilized. Generally, the values indicated by income and market-based approaches should be consistent and are usually given full weight when they are greater than a company's adjusted net asset value (to which no weight would be assigned). When a company's adjusted net asset value exceeds its income and market-approach values, however, consideration should be given to the higher asset-based value.

Some valuation analysts apply explicit weights to the values indicated by each methodology used while others use professional judgment and select a value within the range indicated by the methodologies applied. Regardless of the approach, the concluded value should be reconciled and supported by the valuation methods utilized.

An example of a reconciliation of various valuation methods is presented below:

Reconciliation of Valuation Methods Example

	Discounted Cash Flow Method	*Guideline Transaction Method*	*Guideline Public Company Method*
Control Adjustment	*0.0%*	*0.0%*	*0.0%*
Marketability Adjustment	*30.0%*	*30.0%*	*30.0%*
Value of the Company's Equity Prior to Control Adjustment	$ 13,100,000	$ 14,300,000	$ 13,300,000
Less: Control Adjustment	-	-	-
Value of the Company's Equity Prior to Marketability Adjustment	13,100,000	14,300,000	13,300,000
Less: Marketability Adjustment	(3,930,000)	(4,290,000)	(3,990,000)
Non-Controlling, Non-Marketable Value of the Company's Equity	$ 9,170,000	$ 10,010,000	$ 9,310,000

Concluded Value - 20.0% Ownership Interest in the Company	
Concluded Non-Controlling, Non-Marketable Value of the Company's Equity	**$ 9,500,000**
Times: Percentage Ownership Interest Valued	20.0%
Concluded Non-Controlling, Non-Marketable Value of 20.0% Equity Interest in the Company (Rounded)	**$ 1,900,000**

Conclusion

Valuing a privately-held company is much more involved than simply typing a ticker symbol into Yahoo! Finance. It also is much more involved than just applying an estimated multiple to the company's EBITDA.

I hope you have gained a better understanding of the valuation methods that are most frequently used in the valuation of privately-held companies. Understand, there are additional nuances specific to each valuation that are not addressed in this eBook including income statement normalizing adjustments, financial statement analysis, economic and industry analysis, discount rate analysis, selection of control and marketability discounts, and many other items. The variables would be exhaustive to list.

At the end of the day, however, and regardless of the type of company or its industry, the valuation of privately-held companies comes down to the application of asset, income and market-based valuation approaches.

If you are a business owner trying to gain an idea of your company's value, a party in need of a valuation analysis (litigation, tax, financial reporting, etc.,) or have questions about valuation, please email me at ssaari@skodaminotti.com or call me direct at 440-605-7221.

About the Author

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Sean is a Principal with Skoda Minotti's Business Valuation and Litigation Support group. In this role, he is responsible for developing and issuing valuation reports, calculation of value reports, and expert reports under valuation and consulting standards. Sean has assisted a diverse client base in litigated matters, domestic disputes, shareholder disputes, estate and gift tax filing, and financial reporting valuation issues, and solvency opinions.

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