CHAPTER FOUR

GUIDELINE PUBLIC COMPANY METHOD

I. OVERVIEW

The Guideline Public Company Method evaluates the prices paid for publicly traded company equities as the basis to determine the value of the subject company. By publicly traded companies, we mean companies that have registered with the Securities and Exchange Commission (SEC) and are traded on one of the publicly listed exchanges such as the NYSE (New York Stock Exchange now merged with Euronext), NASDAQ (National Association of Securities Dealers Automated Quotations) and American Stock Exchange (ASE). In addition to the data available on the large exchanges, there are hundreds of other smaller exchanges including Chicago Board of Trade (CBOT), Over the Counter (OTC) Bulletin Board, and Pink Sheets. All of these provide information about the market value of equities that are publicly traded.

Below are the number of companies that comprise each index:[41]

Exchange	# of Companies
NYSE	2,424
NASDAQ	2,709
Japan	3,432
Euronext	1,063
LSE (London)	2,475
Hong Kong	1,689
Shanghai	959
TMX (Includes Toronto & TSX Venture)	3,805
Deutsche Bourse (Frankfurt)	702
SIX (Zurich)	275
ASE/ATHEX	247
JSE (Johannesburg)	375
BM&F (Sao Paulo)	369

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[41] This information was compiled as of the third quarter of 2014.

As discussed in Chapter 1 of Fundamentals, Techniques, and Theory, the SEC has regulatory authority over U.S. public markets. Data obtained from SEC registered companies is subjected to the rigor of regulatory oversight. For valuation purposes, the key SEC data filings include the 10-K annual report, 10-Q quarterly report and the 8-K special events filing. Included in these filings are quarterly and yearly balance sheets, income statements, statement of changes in cash flow and other supplementary information about the company, its operations, ownership, key management team and market data. This information can be obtained for free via several sources such as SEC's EDGAR database, Yahoo! Finance, Google Finance, NASDAQ.com and other internet sources. Pay services such as Scottrade, E*TRADE, Bloomberg and others offer in-depth analysis and access to company data, historical trends and expert analysis.

The financial data, with a few exceptions, has been audited by registered independent accountants. These independent accountants must meet the registrant and oversight requirements of PCAOB (Public Company Accounting Oversight Board), a nonprofit corporation established by Congress to oversee the audits of public companies.

The audited financial data derived from these filings has been prepared according to Generally Accepted Accounting Principles (GAAP). Accordingly, the information is reliable, consistent and independently verified. This is especially true when comparing the Guideline Public Company Method's publicly available financial information to the Completed Transactions Method's private company data that is not subjected to the same independent rigor or transparency.

The additional reliability through regulation imposes significant compliance costs upon the companies that choose to be listed on public exchanges subject to SEC regulation. These costs include significant management time on compliance related reporting issues, audit fees, regulatory filing fees and attorney fees.

A significant advantage of this method is that the stock quotes can be obtained as of the valuation date. Furthermore, the financial information can be obtained as of the nearest quarter-close of the valuation date. This makes the comparable company's data dynamic and reduces the need for market adjustments as the effect of market forces is already priced into the security as of the observation date.

For many smaller companies however, the cost burden and reporting requirements are too substantial and the benefits of a publicly traded stock too small to warrant serious consideration of "going public" through an Initial Public Offering (IPO). Nonetheless, there may be valid comparisons to be drawn in some cases. Accordingly, the valuation analyst may want to weigh the availability and quality of data available for valuations involving companies whose revenue meets or exceeds this minimum threshold level.

A.   UNDERSTANDING THE PRINCIPLES BEHIND THE MULTIPLE

The principle behind the Guideline Public Company Method is that the day-to-day sales price of an individual share of stock is reflective of the market value of the entire company's equity. This method relies on the assumption that the selection of public companies similar to the subject company should produce meaningful equity multiples for the valuation of privately held companies.

Since the multiples are based on the market's reflection of value of the comparable's equity pricing as of the valuation and observation date, then the multiples produced are reflective of the perceived fair market value and risk associated with the given security on that particular

date. This limits adjustments to the multiple based on economic activity, industry news or regulatory factors. The theory is based upon an assumption that the market is rationally responding to these factors and as such, these issues are factored into the closing stock price as of the observation date. The valuation analyst should look for individual stock anomalies that may affect an individual share's value. For example, a major lawsuit filed against a comparable company could deflate its stock price and cause the multiple to be skewed if this observation was included in the pool of comparable stocks.

An important distinction of this methodology is the value it produces. The underlying data is predicated upon sales of individual securities sold in a public forum. Therefore, the value produced by this methodology is a minority, marketable value of equity. To convert this to a privately held subject company's interest requires additional consideration in the form of control premiums and marketability discounts. Furthermore, since the value computed is the value of equity, to convert to an enterprise value using equity multiples, long-term debt must be added to the value computed.

B. BASIC IMPLEMENTATION

1. Review the nature and background of the subject company, its industry, the economy, etc. The valuation analyst should understand the subject business's sustainability in the industry and the conditions under which it operates.

2. Obtain the financial statements for the subject company. The analyst should obtain the last five years of financial data as this typically represents a full business cycle.

3. Find suitable comparables in the public markets. This is done by searching for companies similar to the subject company's industry, revenues, market share, total assets, etc. The search can be conducted online through sources such as Yahoo! Finance, Google Finance or many other public investment forums.

4. Normalize both the subject company and comparable companies. In basic valuation methodology, normalizing the subject company is a key process inherit in every method. Normalization involves the adjustments for non-recurring items, truing up accounting methodology, adjusting salaries, etc.

5. In the guideline public company comparable method, the ability to normalize the comparable companies is unique. This is possible because the information necessary to normalize the comparables is contained in the public filings, announcements and quarterly financial statements. Accordingly, the analyst should gain a much deeper understanding of the comparables themselves and how they relate to the subject interest when compared to the information available using the Completed Transactions Method.

6. Prepare a comparative table of financial data. For example, juxtapose the subject company's income statement and balance sheet against the comparables' income statements and balance sheets.

7. With the normalized comparable company information, the analyst can compute either market value of invested capital (MVIC) multiples or equity multiples.[42] Commonly used

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[42] It is important to understand that to use MVIC multiples, one must be sure to take into consideration the long-term debt of the company (if this has not been done already). In the public markets, quoted MVIC multiples are usually computed by adding back the long-term debt and

multiples include Price/Earnings, Price/Revenue and Price/EBITDA (earnings before interest, taxes, depreciation and amortization).

8. Choose the appropriate multiple based on an analysis of the multiple with the lowest coefficient of variation. The coefficient of variation closest to zero has the smallest standard deviation and therefore, the least amount of variability in its application.

9. Apply the computed multiples to the subject company's corresponding statistics. Care should be taken to ensure the multiple's base is applied to the same subject base. For example, if a Price/Revenue multiple is used based upon the comparables' last or trailing twelve months of data,[43] use the subject company's corresponding time period of revenue for the analysis. Otherwise, a mismatch of the application of the multiple and its base data will occur.

10. If more than one multiple is to be used, then the valuation analyst should weight the corresponding results to achieve a single result under this methodology. The valuation analyst should have good reasoning for using more than one multiple and naively averaging several methods should be avoided (see Revenue Ruling 59-60).

11. After computing the results, additional adjustments for the subject company's non-operating and extraordinary assets and liabilities are made. This is accomplished by adding or subtracting these amounts from the results derived above.

12. Apply any premiums or discounts to the result to produce the same level of value as required by the scope and purpose of the valuation engagement.

13. Perform sanity checks and compare the results of this methodology to the results of other methods. Compare the results achieved under this method to the Income and Asset approaches. Are they similar? If a substantial difference exists, check the methodology and physical calculations to ensure that the valuation has been performed correctly. Be prepared to discuss and explain the results and applicability of each method.

14. Understanding the Results

    Since the underlying data observed is minority, publicly traded shares, the Guideline Public Company Method produces a minority, marketable value.

    The equity numerator is an aggregation of minority shares. Its base is predicated upon minority sale values. Since one is directly calculating a minority value, a discount for lack of control is not appropriate when calculating a minority value for the subject company's equity interest.

    If one is calculating a control value, a control premium should be considered. A controlling interest in the subject company exercises certain rights and privileges of control not afforded to minority shareholders such as setting compensation, determining company

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subtracting cash. Therefore, when applying MVIC multiples one must add back cash in addition to the non-operating and extraordinary balance sheet items.

[43] This is commonly expressed in public data as the "TTM" or "LTM."

direction, negotiating deals, etc.[44] Failure to consider this aspect for control will result in the same value for the control and minority interest positions.

In many instances, the private subject company valuation will be calculated based upon a non-marketable basis. Therefore, the analyst will need to adjust the Guideline Public Company Method results to account for the non-marketable aspects of the subject interest. This will normally be the case except when valuing subject interests that are publicly traded, frequently privately traded or otherwise reasonably convertible to cash in a short period of time without substantial transaction costs.

C. THE EFFECTS OF SIZE ON MULTIPLES

Much research has been done to study the relationship between small companies and rates of return. Because a market multiple is really the inverse of the rate of return, these studies also apply to market multiples. If the result of a study seems to indicate that investors earn higher returns on smaller companies, the mathematical corollary is that smaller companies sell for lower multiples. Given that returns and multiples are inversely related, there has been some research specifically addressing the multiples paid for smaller and larger firms—including that by two Harvard Business School faculty members, Richard Ruback and Royce Yudkoff.

Some of the research that is conducted with an emphasis on multiples is less formal or empirical and often conducted through interviews and anecdotal reports of multiples paid. A paper written by Ruback and Yudkoff in 2012 found that acquisition costs were larger, as a percentage of total value, for smaller firms. This indicates that there is some measure of fixed expenses in acquisition costs is consistent with common brokerage terms, and typical pricing structures for financial and transaction consulting services.

For example, financial statement preparation may be more expensive, in dollar amounts, for larger firms, but the expenses of putting together financial statements deemed reliable by an outside party is usually a larger burden in terms of percentage of value for small companies. The finding that acquisition costs are a heavier burden on smaller companies is also similar to reports of IPO costs, where research finds that the cost of going public may be 6% of the transaction value on average, but are usually a much higher percentage of a small company's value.

In recent history, more empirical research on private equity and venture capital multiples has been conducted and marketed through PitchBook. Since 2012, PitchBook has published a quarterly Deal Multiples & Trends Report that tracks multiples across the size spectrum. The research breaks down data for transactions under $25 million, between $25 million and $250 million, and above $250 million.

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[44] Given this concern about control, the valuation analyst should carefully review any normalization adjustments of the subject interest. In valuing a minority ownership interest, the minority shareholder may not be able to exercise any influence over the subject company. Therefore, the analyst should consider whether normalization adjustments when valuing minority positions are appropriate.

Median EV/EBITDA Multiples by Enterprise Value
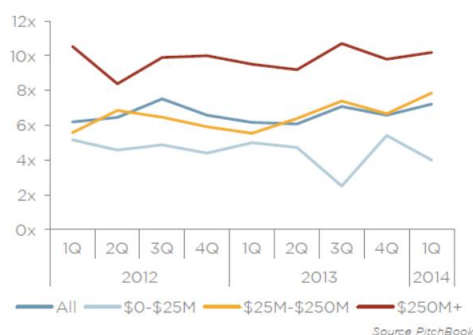
Generally, multiples of EBITDA for the smallest category have been lower than the second category, and EBITDA multiples for the second category have been lower than the largest category.

Median EV Revenue Multiple by Enterprise Value
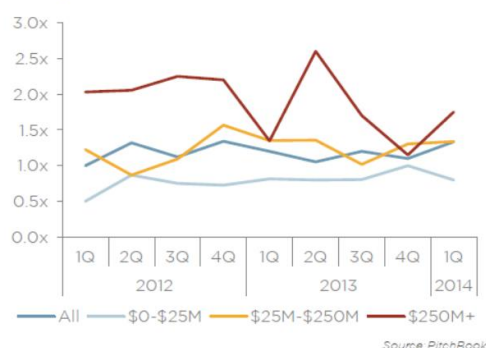
Revenue multiples have generally followed suit, but there have been quarters where the median multiple for the "Above $250 Million" category dipped below that of the "Between $25 Million and $250 Million" category or where the multiples of two categories appeared to be equal.

The Alliance of Merger & Acquisition Advisors (AM&AA) releases a semi-annual Deal Stats Transaction Survey, the results of which echo the findings of the PitchBook reports. The Deal Stats report breaks down approximately 700 deals into those completed for under $1 million; between $1 and 5 million; between $5 and $10 million; between $10 and $25 million; between $25 and $50 million; and over $50 million. The Deal Stats report cautions that the study reports averages, and that there is considerable variability between the actual deals and the trend (some small companies may fetch very high multiples and vice versa). Similarly, GF Data Research has reported what appears to be a size premium—as well as differences in multiples when comparing companies with above- or below-average profitability.

The reports of the AM&AA and GF Data Research highlight an important consideration: while a general relationship between size and market multiple may exist, specific facts and characteristics of the subject company (e.g. growth, profitability and competitive position) must also be considered.

D.   ADVANTAGES OF GUIDELINE PUBLIC COMPANY METHOD

The Guideline Public Company Method uses dynamic comparable equity transactions as of the valuation date. This type of comparison provides the valuation analyst with value data inclusive of industry and market components. This reduces the number of areas for adjustment and degree of adjustment subjectivity inherent in other approaches. When compared to the Income Approach, for example, the discount rate is already factored into the Guideline Public Company Method pricing model based on arms-length transactions observed on the valuation date. In minority, non-marketable valuations, analyst subjectivity could be narrowed to the degree to which the valuation analyst applies a lack of marketability discount.

There is also a great deal of information available to the public for free. Also, in contrast to information on privately held companies (and related transactions), the financial data available is typically required to be analyzed and verified by an independent and qualified third party (audited).

This method is most advantageous when valuing interests of minority shares in middle market and larger companies that could choose the publicly traded route but for various management reasons have not done so.

E.   DISADVANTAGES OF GUIDELINE PUBLIC COMPANY METHOD

The single biggest disadvantage of the Guideline Public Company Method pertains to the size of the subject company. Is the interest to be valued of adequate size to make a comparative analysis to publicly traded securities valid? This can be determined by carefully juxtaposing the subject company's financial metrics against the publicly traded comparable companies' financial metrics. If there is a substantial mismatch between the subject and its comparables, the underlying multiple will not produce meaningful results without further and substantial subjective adjustment. As discussed in Section 1.3 above, as company size is increased, a premium for size is an integral part of the multiple equation.

Another common issue with the Guideline Public Company Method is that the public companies tend to be more diversified. They may have greater revenue and operational diversification, as well as a wider geographical reach.

Publicly traded companies also have greater access to capital. Publicly traded companies, on average, will find it easier to secure debt (without the owners' personal guarantees). Publicly traded companies often have avenues of raising capital that are not viable for privately held companies. The valuation analyst must consider how and to what extent this may affect the comparability of the companies.

The subjective multiple adjustments need to be based on statistical analysis and not arbitrary opinion. Given the extent of the adjustment required, the multiple adjustment by itself may be too subjective to provide relevant and reliable data points upon which to base an analysis of the subject interest. For example, for controlling interests of small entities with revenues of less than $4,000,000 to $5,000,000, it is doubtful that this approach will provide meaningful statistical valuation relevance.

As discussed earlier, another disadvantage is that any extraordinary events or good/bad announcements immediately affect the market price of that stock. It can be difficult to adjust the

observed multiple so that it provides a basis of valuation for the subject company without regard to the individual stock anomaly.

F.   CONSISTENCY IN THE APPLICATION OF THE GUIDELINE PUBLIC COMPANY METHOD

To apply consistently the Guideline Public Company Method, the valuation analyst should first make sure that the subject interest is suitable to be compared to a publicly traded company. It does not provide statistical meaning to relate a locally-owned computer repair shop to Apple Inc's valuation multiples. Therefore, relevant size is an important consideration. For guidance consider the 5/10/10 principle. As previously outlined, comparable companies within +/- 10 times of the subject company's revenue and earnings may provide statistically meaningful multiple data. To illustrate this point mathematically, a subject company with $50,000,000 of revenue should begin to look for publicly traded comparables between $5,000,000 and $500,000,000 of revenue. From this initial dataset, more relevant comparables should be selected for further analysis.

In this context, the term "public" means public information. The valuation analyst will have at his/her use substantially more information upon which to base this method.[45] Care should be exercised to ensure that this additional information is put to good use. Additional procedures comparing the subject to its comparables demonstrate the statistical relevance of the results of the Guideline Public Company Method.

As in the Completed Transactions Method, be sure to apply the proper guideline company metrics to the proper subject company's metrics. If one is using a trailing twelve month revenue multiple, be sure to use the subject company's revenue for the same trailing twelve months. Annual data and trailing twelve months data will not normally be the same. A mismatch of these data points will result in a flawed application of the methodology.

Finally, understand the value derived under this method. The Guideline Public Company Method produces a minority, marketable value. Therefore, when valuing control positions, a control premium may be necessary to add to the minority marketable value. Furthermore, when valuing non-marketable interests, a discount for lack of marketability may be appropriate.

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[45] In general, when the analyst has access to statistical information, he/she is expected apply this information to the valuation assignment. Misapplication of this approach often occurs when the analyst ignores the additional information available that would have resulted in a different calculation or conclusion of value. Accordingly, when applying this approach, the valuation analyst should budget enough time to apply effectively the procedures necessary to support their value calculations and conclusions.

Practice Point: Primary Drivers of the EV Multiples

EV Multiple	Value Driver
EV/Sales	Expected Operating Margin and Revenue Growth
EV/EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization)	Expected EBITDA Growth
EV/EBIT (Earnings Before Interest and Taxes)	Expected EBIT Growth
EV/FCFF (Free Cash Flow to the Firm)	Expected FCFF Growth
EV/TA (Total Assets)	Expected Return on Total Assets
EV/BEV (Book Enterprise Value)	Expected Return on Book Operating/Invested Capital)
EV/FA (Fixed Assets)	Expected Return on Fixed Assets
EV/TFA (Tangible Fixed Assets)	Expected Return on Tangible Fixed Assets

II. SUMMARY

The Guideline Public Company Method provides the valuation analyst with dynamic, independent valuation data based on industry and market conditions as of the date of the valuation. When applicable, this method can provide significant relevant information about the value of the subject company's interest. One of the key factors that makes this method relevant is the amount and consistency of information available. Publicly traded companies are subjected to the rigor of SEC reporting requirements, auditor procedures and generally accepted accounting principles. This increases the ability of the analyst to rely upon the quality of the data underlying this methodology. Furthermore, this allows the analyst the ability to adjust the comparables' financial statements since the information necessary to make these types of adjustments is generally available.

The initial analysis of this method produces a minority, marketable value. From this result, the analyst must consider factors for control and lack of marketability to adjust the value derived to the subject interest valuation.

Furthermore, the valuation analyst should consider the financial metrics of the subject company's interest to the publicly traded entity. If there is a substantial disparity between the subject company's revenues, assets, earnings, management depth, etc., a meaningful comparison may not be possible without substantial subjective adjustments to the publicly derived multiples. The analyst should exercise care when determining the nature and degree of this adjustment its effect upon the relevance of the valuation assignment.