

Current Methodologies

The Guideline Company Transaction Method is a subset of the Market Approach and is a sister to the Guideline Public Company Method. The two methods are characterized by the transactional databases used in the calculation of value. The Guideline Public Company Method uses various SEC (Securities and Exchange Commission) data of publicly traded companies that have been acquired by other publicly traded companies. This method is obviously used to value large-sized publicly traded corporations. The Guideline Company Transaction Method, which will be used in this book, references a number of subscription-based databases that have recorded the sales of small privately owned companies. The data from those transactions is compared to the subject company in order to draw a conclusion of its value.

The focus of the regression methodology being presented is primarily on companies with revenue less than \$5 million. Most of those transactions have been handled by main street business brokers. Most of these business brokers have been schooled by the IBBA (International Business Brokers Association) and therefore, present the transactional data using the same format. As companies increase in size, especially those with revenues greater than \$10 million, M&A specialists (mergers and acquisitions) are the more common sales agents. These larger companies are referred to as middle-market businesses—bigger

than main street but smaller than Wall Street. The M&A professionals analyze financial statements differently than main street brokers. For the most part they use EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) as a measure of earnings rather than SDE (Seller's Discretionary Earnings). The two values are significantly different as are the rules to calculate them.

The terms Seller's Discretionary Earnings (SDE) and cash flow will be used interchangeably throughout this book.

There are several transactional databases available that concentrate on the smaller main street businesses. The four databases referenced in this book are:

1. DealStats (formerly Pratt's Stats) has over 30,000 transactions. The median revenue of all the transactions is \$750,000. 75% generated less than \$3,500,000 in revenue. Most of the data is obtained from business broker submissions. However, for many of the larger transactions the data was harvested from SEC filings of 8-K quarterly financial reports. The database is owned and managed by Business Valuation Resources, LLC, Portland, Oregon.
2. Bizcomps[®] has over 14,000 transactions with a median revenue of \$455,000. 75% generated less than \$915,000 in revenue. All the transactional data is obtained from broker submissions. The database was created by Jack Sanders and is owned by Bizcomps Services, Las Vegas, Nevada.
3. ValuSource (formerly IBA) has over 42,000 transactions with a median revenue of \$341,000. 75% generated less than \$766,000 in revenue. All transactional data is obtained from broker submissions. The database is owned by ValuSource, Colorado Springs, Colorado.
4. Peercomps has over 10,000 transactions with a median revenue of \$1,034,000. 75% generated less than \$1,890,000 in revenue. Data is obtained from SBA lending banks. The database is owned by Peercomps, Inc., Lutz, Florida.

A notable fifth database is ValuSource M&A Comps (formerly DoneDeals), which provides transactions in the private-sector middle-market (companies with revenues from \$10 million to \$300 million or more). Most of its transactions are much larger than the \$3 to \$5 million range of the other four databases. The regression methodology advanced in this book has not been tested on this larger population of privately held businesses.

Each of the four main databases report transactional data in slightly different formats. However, there typically is enough data to reconcile each transaction to yield a selling price in an asset sale value format. An asset sale is the most common structure in which small businesses are sold. The owner only sells the company's inventory, fixtures and equipment, and its intangibles (goodwill, covenant-not-to-compete, etc.) and retains the business entity, cash, and accounts receivable and pays off all the liabilities.

Each transaction used in the regression methodology must be reconciled to an Asset Sale Value so that they will be directly comparable.

The procedural manuals of the four databases also indicate minor differences in the way revenue and discretionary earnings are reported. DealStats collects 165 data points for each transaction including a summary of the P&L and balance sheet, a description of the terms of the deal, the type of consideration tendered, and whether it is a stock sale or an asset sale. Because of the extensive information available, reconciling Seller's Discretionary Cash Flow or reconciling the actual selling price of the transaction is often more reliable. DealStats calculates SDE similarly to Bizcomps and ValuSource; however, it is not uncommon to find discrepancies among all three. Careful analysis of all the databases will help avoid selecting incorrect transactional data. The greater detail offered by the DealStats database can help reduce errors in selecting the transactional data. Therefore,

if there are any discrepancies arising among duplicate transactions reported by the databases, the DealStats data will generally be used in the analysis.

Nevertheless, in instances where the databases reported the same transaction, I have found that in a high percentage of the cases the selling price, gross revenues, and discretionary earnings were similar. In instances where there were differences, the available data often enabled one to reconcile the values to be comparable. One can attribute this similarity to the fact that the same brokers will report a transaction to all three databases (Peercomps only uses bank data) and will offer only one calculation for selling price and Seller's Discretionary Earnings (SDE). Brokers will typically follow the convention recommended by the IBBA (International Business Brokers Association) for calculating SDE. Therefore, all of the databases will be considered similar enough in their respective construction to be grouped together. Shannon Pratt draws the same conclusion in *The Market Approach to Valuing Businesses*.¹

“One may combine the data from the three databases into a single table. [However,] the analyst must be aware of and make certain adjustments to reflect that the three databases do not define the underlying financial variables in exactly the same way.”

PROCEDURES USED IN THE GUIDELINE COMPANY TRANSACTION METHOD

Gross Revenue Multiplier

This method is a simple ratio of a company's selling price divided by its gross revenues. Companies within a specific industry classification have a tendency to exhibit similar relationships between their revenues and selling price. Selling

¹Shannon Pratt, *The Market Approach to Valuing Businesses*, Hoboken, NJ: John Wiley and Sons, 2001, p. 68.

price and gross revenues of a company are readily obtainable, making this method easy to apply. However, it does not consider the company's profitability or asset valuation in the equation. Therefore, this method, if used by itself, may produce a misread of a company's potential value. The method also does not conform to IRS ruling 59-60 that states one's methodologies must be based on cash flow.

Cash Flow Multiplier

This method is the ratio of a company's selling price divided by its Seller's Discretionary Earnings (SDE). It should be noted that the database sources used in the Guideline Company Transaction Method calculate earnings differently than the way we calculated net cash flow in the Income Approach. SDE is calculated by removing one owner's salary and perquisites (such as health and pension benefits or personal autos) from expenses. Interest, depreciation, income taxes, any one-time expense or income, and any non-operating expense or income are also removed from the income statement. The process of calculating SDE from a company's financial statements is referred to as "recasting." Recasting will be discussed in depth in the following pages.

However, one of the same problems with the gross revenue multiplier exists with the cash flow multiplier. That is, the ratio only focuses on one aspect of the company's operations—its discretionary earnings. Therefore, if used by itself, this ratio may produce a misread of the company's value. For that reason, the Market Approach typically includes both the cash flow and gross revenue multipliers to estimate the value of a business.

Enterprise Value + Inventory

Under certain circumstances, however, using the earlier two methodologies can still produce inaccurate results when valuing businesses that derive the bulk of their revenues from the sale of inventory. For example, it was determined that the average hardware store sells for 0.45 times its gross revenue

and 3.30 times its SDE. In our search, we find two guideline companies, each generating \$900,000 in gross revenues and \$125,000 in SDE; yet one sold for \$400,000 and the second for \$600,000. The anomaly can probably be explained by the fact that the first store had \$200,000 in inventory while the second had \$400,000.

The enterprise value + inventory methodology deducts the volatile inventory component from the selling price of the business. The difference is then divided by the company's SDE. The resulting ratio can be used to determine what is referred to as the enterprise value of the business; that is, the value of a business excluding its inventory. By using this methodology on the two transactions above, we find that enterprise value for both businesses was 1.60 [Store #1 = $(\$400,000 - \$200,000) \div \$125,000$; Store #2 = $(\$600,000 - \$400,000) \div \$125,000$]. We can then use this ratio to estimate the value of a third hardware store that generated, say, \$1,450,000 in gross revenues, \$200,000 in SDE, and had \$375,000 in inventory. Store #3's enterprise value is \$320,000 ($\$200,000 \times 1.60$); its total value including inventory is, therefore, $\$320,000 + \$375,000$, or \$695,000. The cash flow multiplier by itself would have predicted only \$660,000 ($3.30 \times \$200,000$) and the gross revenue multiplier would have predicted \$652,500 ($0.45 \times \$1,450,000$).

When reconciling the above three market value multipliers to estimate the value of this third hardware store, we might consider giving additional weighting to the enterprise value because this store primarily generates its revenue from the sale of inventory.

Recasting

The "recasting" of a company's earnings serves two purposes. First, the databases we use for comparables are a collection of all forms of business entities: S corporations, C corporations, LLCs, partnerships, and proprietorships. Hence, we need to strip away the differences in accounting methods used by each

of those different entity types in order to make them directly comparable. For example, sole proprietorships (SP) report earnings on the Schedule C of the owner's personal tax return. There is no owner's salary expense in an SP; the "bottom line" represents the owner's total income, and payroll taxes for that income appears on the owner's 1040. However, corporations and partnerships generally include a deduction for an owner's salary expense including payroll taxes on that salary. Thus, the bottom line for these entities is net of the owner's salary and payroll taxes. To make the corporate tax return earnings line up with the SP, we would have to add back the owner's salary and payroll tax.

Health benefits are a deduction in C corporations but not in SPs (benefits appear on the owner's 1040). Many accountants also do not include owner's health benefits in S corporations, opting to deduct them on the owner's 1040 tax return. Donations are usually a deduction in C corporations but often not in S corporations (donations frequently appear on the owner's K-1). Accelerated depreciation (IRC Section 179) and gains or losses from the sale of assets often do not appear on an S corporation tax return (they often appear on the owner's K-1) but do on a C corporation or on an SP. State income taxes do not appear on an SP but do on a corporation. SPs by definition have one owner, whereas corporations and partnerships may have multiple owners, all with salaries that are expensed, thereby reducing the bottom line. Finally, since interest expense can vary greatly between similar companies, making direct comparisons of earnings is difficult. Thus, it is also common practice to remove interest expense from the recast financials.

In order to develop some measure of earnings for all these different entities that are directly comparable to each other, the databases have removed all those accounting differences from their income statements. Accordingly, each entity's reported "earnings" is net of taxes, depreciation, health benefits, donations, capital gains, interest expense, and most importantly, net of just one owner's salary and payroll tax. The resulting

measure of earnings is referred to as “Seller’s Discretionary Earnings” (SDE).

If a company has multiple owners (including working spouses of owners), the salary of the principal owner who would most likely be replaced by a hypothetical buyer is added back to discretionary earnings (SDE). It is also assumed that the hypothetical buyer would have to replace all the secondary owners or family members with hired employees. Consequently, all owners’ and family members’ salaries are added back to SDE, but the replacement costs of the secondary owners and family members are *deducted* from SDE.

If the present owner is an absentee owner, the salary of the general manager is added back to SDE along with the owner’s salary. The assumption here is that a hypothetical buyer will be a full-time operating owner/manager, thereby replacing both the manager and the owner. In doing so he will earn the manager’s salary and the owner’s salary.

After applying all the above appropriate adjustments, we can then directly compare the recast Sellers Discretionary Earnings of corporations to sole proprietorships, partnerships, and so on. (The terms “Seller’s Discretionary Earnings” and “cash flow” are used interchangeably in the following Market Approach discussion.)

The second purpose for recasting a company’s earnings is to attempt to present a normalized view of the subject company’s operations. The recast financials should serve as a proxy for the level of operations from which we may reasonably expect future revenues to evolve. Thus, we select an earnings period that best represents the current level of operations (which may not be the current year’s P&Ls), and then we remove any non-operating income or expenses and any non-recurring income or expenses. The result should be an income stream for the subject company that we can reasonably expect under normal circumstances. The normalized P&L of the subject has now been properly recast and can be compared to the database guideline companies.

Conventional Analysis of a Sample of Comparables

After a sample of transactions has been selected, the typical approach is to use various statistical measures to calculate the appropriate multipliers that we discussed previously. Exhibit 1.1 shows a sample of transactions with the revenue and cash flow multipliers calculated for each. At the bottom of the table, three different metrics were used to calculate appropriate multipliers to be applied to the subject's revenue and cash flow to determine the estimated value of the business—lower quartile, median, and upper quartile.²

One of the current popular topics regarding Market Approach methodologies is whether the median or the harmonic mean is the better statistical measure to calculate the revenue and cash flow multipliers of a sample of comparables. Both metrics have their strong points. However, the multipliers they generate occasionally produce values for an appraisal subject that do not appear reasonable. It is fairly common that the value calculated using the median revenue multiplier of a sample of comparables is considerably higher than the value calculated using the median cash flow multiplier. And, at other times, we find that the value calculated using the median cash flow multiplier is considerably higher than the value using the median revenue multiplier.

The Problem

We will start with a typical sample of comparables that an appraiser might collect. Exhibit 1.1 shows 24 companies that were similar to our subject company.

Each transaction shows the selling price, gross revenue, cash flow, and its calculated revenue and cash flow multipliers. From the data we can calculate the median revenue multiplier

²Many appraisers also use a wider range of revenue and cash flow by calculating the standard deviation or tenth percentile of earnings and revenue.

EXHIBIT 1.1 Sample of Transactional Data

	Selling Price (b)	Gross Revenue (c)	Cash Flow (SDE) (d)	Rev. Mult. (b) ÷ (c)	CF Mult. (b) ÷ (d)
1	170,000	1,250,000	37,000	0.14	4.66
2	252,000	1,405,000	49,000	0.18	5.14
3	315,000	1,193,000	83,000	0.26	3.81
4	300,000	1,291,000	90,000	0.23	3.33
5	312,000	1,278,000	94,000	0.24	3.32
6	509,000	1,175,000	97,000	0.43	5.25
7	575,000	1,225,000	115,000	0.47	5.00
8	575,000	1,200,000	103,000	0.48	5.58
9	347,000	1,120,000	105,000	0.31	3.30
10	430,000	1,345,000	142,000	0.32	3.03
11	575,000	1,386,000	151,000	0.41	3.81
12	550,000	1,376,000	168,000	0.40	3.27
13	690,000	1,017,000	126,000	0.68	5.46
14	568,000	1,183,000	157,000	0.48	3.63
15	391,000	1,255,000	178,000	0.31	2.20
16	520,000	1,282,000	186,000	0.41	2.80
17	275,000	1,172,000	171,000	0.23	1.61
18	594,000	1,315,000	203,000	0.45	2.93
19	700,000	1,176,000	215,000	0.59	3.26
20	565,000	1,049,000	172,000	0.54	3.29
21	577,000	1,280,000	213,000	0.45	2.71
22	650,000	1,050,000	210,000	0.62	3.10
23	545,000	1,017,000	204,000	0.54	2.67
24	700,000	1,250,000	275,000	0.56	2.55
	Price	Revenue	Cash Flow	Rev. Mult. Range	CF Mult. Range
Avg	\$487,000	\$1,220,000	\$148,000	0.41	3.57
	Lower Quartile =			0.30	2.89
	Median =			0.42	3.30
	Upper Quartile =			0.49	4.02

for the whole sample (0.42) and the median cash flow multiplier (3.30). We also note that the average company sold for \$487,000 and had an average revenue of \$1,220,000 and cash flow of \$148,000.

Our first example valuation using the data from Exhibit 1.1 will be for a company that is fairly similar to the average-sized comparable in our sample. The subject's revenue was \$1,200,000, and its cash flow was \$150,000.

By using the median revenue multiplier of 0.42 from Exhibit 1.1 we obtain an estimated value for our subject of \$504,000. The median cash flow multiplier produces a value of \$495,000. The values from both metrics are reasonably similar and no one would challenge the appraiser for opining a value of \$500,000.

EXHIBIT 1.1

	Price	Revenue	Cash Flow	Rev. Mult. Range	CF Mult. Range
Avg	\$487,000	\$1,220,000	\$148,000	0.41	3.57
	Lower Quartile =			0.30	2.89
	Median =			0.42	3.30
	Upper Quartile =			0.49	4.02

EXHIBIT 1.2 Average-Performing Subject Company

Example #1	
Average-Performing Subject Company:	
Revenue	\$1,200,000
Cash Flow	\$150,000
<u>Median Revenue Multiplier Value</u>	
$\$1,200,000 \times 0.42 = \$504,000$	
<u>Median Cash Flow Multiplier Value</u>	
$\$150,000 \times 3.30 = \$495,000$	
Opinion of Value is: <u>\$500,000</u>	

The use of medians begins to have problems when we appraise a company that is an underperformer. Example #2 below is one such company where revenues are the same as example #1, but its cash flow is only \$85,000, far less than the \$148,000 average of our sample. The median revenue multiplier of 0.42 from Exhibit 1.1a produces the same value for this unprofitable company as the more profitable company in example #1. As such, we know that isn't a reasonable value.

The cash flow multiplier of 3.30 produces a value of \$280,500, which appears to be too low.

EXHIBIT 1.1a

	Price	Revenue	Cash Flow	Rev. Mult. Range	CF Mult. Range
Avg	\$487,000	\$1,220,000	\$148,000	0.41	3.57
	Lower Quartile =			0.30	2.89
	Median =			0.42	3.30
	Upper Quartile =			0.49	4.02

EXHIBIT 1.3 Low-Profit Subject Company

Example #2	
Low-Profit Subject Company:	
Revenue	\$1,200,000
Cash Flow	\$ 85,000
<u>Using Median Multiplier Values</u>	
$\$1,200,000 \times 0.42 =$	$\$504,000;$
$\$85,000 \times 3.30 =$	$\$280,500;$
OR:	Which one is it?
<u>Using Lower Quartile Values</u>	
$\$1,200,000 \times 0.30 =$	$\$360,000$
$\$85,000 \times 2.89 =$	$\$245,650$
Opinion of Value is: ?	

If the appraiser decided to use the lower quartile of multipliers, using the justification that the subject is an underperformer, we find the revenue multiplier value was \$360,000 (\$1,200,000 × 0.30). Although that value would seem reasonable, given that the more profitable company in example #1 was worth \$504,000, the lower-quartile cash flow multiplier produces a value of only \$245,650 (\$85,000 × 2.89). Since the appraiser ends up with four values that are so different, how does one know which one is reasonable or, for that matter, if even taking an average is appropriate?

EXHIBIT 1.1b Exhibit

	Price	Revenue	Cash Flow	Rev. Mult. Range	CF Mult. Range
Avg	\$487,000	\$1,220,000	\$148,000	0.41	3.57
	Lower Quartile =			0.30	2.89
	Median =			0.42	3.30
	Upper Quartile =			0.49	4.02

EXHIBIT 1.4 High-Profit Subject Company

Example #3			
High-Profit Subject Company:			
Revenue	\$1,200,000		
Cash Flow	\$220,000	18.3%	
<u>Using Median Multiplier Values</u>			
\$1,200,000	× 0.42	= \$504,000;	↖
\$220,000	× 3.30	= \$726,000;	↖
OR:			
<u>Using Upper Quartile Multiplier Values</u>			
\$1,200,000	× 0.49	= \$588,000;	↖
\$220,000	× 4.02	= \$884,400;	↖
Opinion of Value is: ?			

Which one is it?

Example #3 shows a company that is far more profitable than the average company in our sample. The resulting cash flow multiplier values for this company are much higher than the revenue multiplier values, which is exactly the opposite situation that occurred with the unprofitable company in example #2.

Again, the median revenue multiplier of 0.42 produces the same value as the less profitable companies in examples #1 and #2, so we know that isn't a reasonable value. The cash flow multiplier of 3.30 produces a value of \$726,000 ($\$220,000 \times 3.3$), which appears to be too high.

If the appraiser decided to use the upper quartile of multipliers, using the justification that the subject is an above-average performer, we find the revenue multiplier value was \$588,000 ($\$1,200,000 \times 0.49$). Although that value would seem reasonable, the matching upper-quartile cash flow multiplier produces an unrealistically high value of \$884,000 ($\$220,000 \times 4.02$). Once again, the appraiser ends up with four values that are so different, this scenario is wide open for challenge.