

Selling a business in the middle market: An introductory case for value measures

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ABSTRACT

This finance case requires students to take the role of a sell-side investment banker in the middle market. It demonstrates how to apply a normalization procedure and the Super Rule of Five practitioners rule to yield estimates of the preliminary transaction value and equity value. Seller-financing, in the forms of an earnout, non-competes and consulting agreements, is introduced to this case as a part of the deal. Students are then required to construct a deal based on the case setting and projected net cash proceeds. Alternative estimations are generated to illustrate how seller-financing, closing costs and various taxes could alter these preliminary values and yield a difference between transaction value and net cash proceeds for the equity owners.

Keywords: merger and acquisition, business valuation, normalization, investment banker, middle market



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INTRODUCTION

In the field of Merger and Acquisition (M&A), there are three levels of markets based on the revenues generated by enterprises. These three levels are (1) the “Mom and Pop” market, (2) the middle market and (3) the upper market. The companies with less than \$1 million in revenues are classified in the “Mom and Pop” market. The number of enterprises in this market represents around 79 % of the total number of US businesses (Roberts, 2009, p5). Examples of these businesses are dry cleaners, framing stores and small convenience stores, etc. The companies in the upper market are those producing revenues of at least \$1 billion. They represent less than 1% of total US companies and are generally public companies, although there are many private companies as well. The business values of the firms in this market are tied to the market values of their outstanding stocks. When involved in M&A activities, they are either self-represented or represented by regional or “Wall Street” investment bankers. The middle market comprises companies with annual revenues ranging from \$1 million to \$1 billion. There are approximately 1.2 million firms in this category and they account for 21% of U.S. businesses (Roberts, 2009, p5). The sales produced by this group of firms, generally private sizable businesses, are totaled at \$9.8 trillion (Roberts, 2009, p5). They represent a significant driving force of the U.S. economy and contribute a large portion of the US GDP. However, due to the necessity of confidentiality on the part of business owners, the lack of market information has resulted in a longer period of time in buying and selling a middle market company than the time it normally takes to close a deal in the upper market. This inefficiency thus nurtures the need for the services provided by boutique investment bankers in the middle market of M&A.

PURPOSE OF THIS CASE

The conventional academic curriculum in the field of Mergers and Acquisitions emphasizes the various perspectives in the upper market. It has, however, long overlooked the middle market in the M&A literature. The potential breadth of the deal-making in this market, due to the retiring baby boomers who are now ready to sell their businesses, has presented a great opportunity for college graduates to enter this market as investment bankers. This case, based on a more realistic setting than what is generally found in a traditional academic textbook, intends to reduce this gap by demonstrating how a sell-side investment banker in the middle market estimates various business values and constructs a deal. In this case, students are required to apply a normalization procedure to adjust the Earnings Before Interest and Tax (EBIT). They are also instructed to use the Super Rule of Five practitioners rule to determine a reasonable multiple to apply to the normalized EBIT. In addition, deferred payments in the forms of an earnout, non-competes and consulting agreements are further introduced to this case as part of constructing a deal. The availability of this interest-free seller-financing (earnout, etc.) thus requires students to adjust previous estimates and to witness a significant difference between enterprise (transaction) value and net cash proceeds.

TARGETED STUDENTS AND LEARNING OUTCOMES OF THIS CASE

This case can serve as the first-case exercise for an instructor who wishes to introduce his or her students to the process of projecting business values for M&A transactions in the middle market. The ideal courses to host this case will be upper-level courses in either the finance or accounting departments that cover subjects such as “Business Valuation”, “Mergers and

Acquisitions” or “Investment Banking”. Students are expected to possess a basic understanding of accounting. After finishing the required tasks in this case, students should be able to not only project the numerical figures of enterprise (transaction) value, equity value and net cash proceeds, but also to construct a deal and recognize the following:

- (1) Non-recurring items, (2) owners’ perks, and (3) excessive payments in salaries, bonuses and related retirement contributions as factors to consider for normalizing EBIT.
- “The Super Rule of Five” for the M&A multiple in the middle market.
- The differences among enterprise (transaction) value, equity value and net cash proceeds.
- Debt (in this case, bank debt) as a factor accounting for the difference between enterprise (transaction) value and equity value
- If the key employees are not secured with employment contracts and non-competes, they will have to be secured at the expense of the owners. In this case, this expense comes in the form of “phantom stocks”.
- Deferred payments (earnout, non-competes, consulting agreements) are forms of interest-free seller-financing. These are the items generally seen in a deal structure, especially when the seller is in a weak or “motivated” position during negotiation.
- Closing costs, including taxes (from all levels of government) and the fees paid to investment bankers and the various legal and accounting consultants, are factors accounted for in the difference between equity value and net cash proceeds.

AMERICAN OXYGEN CORPORATION

American Oxygen, a Denver-based corporation founded five years ago by two partners, John Smith and Michael Jones (with a 50% ownership each), engages in the development, manufacturing, assembling and marketing of oxygen devices. Its products are mainly used in assisted-living facilities and residential homes. There are three main product lines: (1) home-based oxygen concentrators, (2) portable oxygen systems and (3) oxygen concentrator components and accessories. Some of its products are equipped with the patent-protected technology owned by American Oxygen.

Consolidation of this industry has started to take place in recent years. As an investment banker and a specialist of this industry, you have advised the owners to sell the company if the price is right. A potential buyer has been indentified and has shown an interest in buying. The owners of American Oxygen decided to prepare the Company to sell and engaged you to start this process.

The owners indicated the revenue for the current year is \$127.5 million. The balance sheet and income statement of the past five years are given in Table 1. Through your inquiry, you are able to gather the following valuable information from the department managers and the owners:

- (a) The Marketing Department projected a 25% annual increase in sales for the next two years.
- (b) American Oxygen successfully defended an alleged patent infringement lawsuit this year. The lawsuit expenses amounted to \$250,000.
- (c) The ski rental fees and vacation expenses of the two owners and their families were charged to the Company. They amounted to \$40,000 per year (total for both families).
- (d) The salary of each owner is \$600,000 per year, while the average salary for comparable positions in the same industry is \$250,000.

- (e) The annual recurring discretionary bonuses for the management teams, including owners, amounted to 20% of salaries. Bonuses have been paid in each of the prior five years.
- (f) Contributions to the owners' retirement are 10% of annual salaries.

REQUIREMENTS 1 TO 3

1. Based on the given information, find the normalized EBIT.
2. Apply the "Rule of Thumb" used by practitioners to project the multiple of EBIT.
3. Utilize the projected EBIT multiple to estimate the preliminary enterprise (transaction) value and equity value.

A DEAL STRUCTURE

The selected buyer, through further negotiation, is willing to pay 7x for the business and assume the existing bank debt. In return, the buyer requires the owners to each sign non-competes and also one-year consulting agreements. Each non-compete and consulting agreement is valued at \$500,000 to each owner (total of \$2 million). These agreements are part of the deal (as the buyer would not pay additional amounts for them) as deferred payments. Furthermore, the buyer is proposing an earnout equal to 15% of the enterprise (transaction) value.

After the owners decided to sell the company, key employees were informed. However, some of the key employees have not yet been secured with employment contracts and non-competes. In order to reduce the agency problem and to align the self-interest of these employees with those of current and future owners (so the buyer will show a continuing interest in buying), John and Michael have planned on setting aside \$3 million for "phantom stocks" to take care of this problem.

Closing costs include these items: (1) the fee paid to the investment banker, which amounts to 1.7% of the enterprise (transaction) value; (2) \$30,000 consulting fee to a lawyer; (3) \$10,000 to a CPA firm. For the consideration of various taxes, the accounting department confirmed the Company's tax is 25% at the federal level and 5% at the state level. For each owner, the effective tax rate of 40% (including all levels of government) will apply to their ordinary incomes.

REQUIREMENT 4

4. Given the developments described above, construct this deal by creating a table that reflects the enterprise (transaction) value, equity value, net cash proceeds, deferred payments and various expenses, including closing costs, phantom stocks, capital gain taxes and ordinary income taxes.

INSTRUCTOR'S MANUAL

Solution 1

From the information items (b) to (f), three types of normalization are identified. The first type is the "Non-Recurring" expense. As American Oxygen has successfully defended an alleged

infringement lawsuit this year, it is assumed that this unusual lawsuit expense (\$250,000, information item (b)) will not recur in the future. The second type of normalization for this case is called “Owners’ Perks”. Owners of companies in the middle market have a tendency to classify their personal expenses (on luxury cars and vacations and so on) to be operation expenses of their businesses in order to reduce tax liabilities. The frequency and size of this practice are often discretionary and not business-related. For American Oxygen, the owners’ ski rental and personal vacation expenses of \$40,000 fall into this category (information item (c)). The third category identified in this case for normalization, is salary-related. Following the same logic that explains the owners’ aggressive acts that exaggerate operation expenses in order to benefit from fewer tax outflows, the owners often overpaid themselves as well. In this case, the two owners of American Oxygen, John Smith and Michael Jones, each expensed their annual salaries at \$600,000, while the average salary for the comparable position is \$250,000. This act creates above-normal salary expenses of \$700,000 ($=\$350,000*2$) for the Company. This excessive overpayment, in turn, increased additional outflows from bonuses (20% of salaries) and the contributions to the owners’ retirement plans (10% of annual salaries). Adding the excessive owners’ salaries ($=\$700,000$), bonus payments of \$140,000 ($=20\% * \$700,000$) and the excessive contributions of \$70,000 ($=10\% * \$700,000$) together results in \$910,000 ($=\$700,000 + \$140,000 + \$70,000$) of abnormal salary-related expenses. Adding the normalization from the “non-recurring” items (\$250,000 lawsuit) and “owners’ perks” (\$40,000 personal vacation expenses) to these salary-related abnormal expenses of \$910,000, a total normalization adjustment of \$1,200,000 is warranted. Since these expenses are not “normal” operation expenses, the EBIT should then be adjusted upward to reflect the true economic reality of the Company’s operation. The normalized EBIT arrives at \$2,430,000 after these adjustments. (See Table 2 for the summary of these normalization adjustments.)

Solution 2

The practitioners “Rule of Thumb” states that for companies with annual revenues between \$100 million and 150 million, the estimated current value of the enterprise divided by the future EBIT (after two years) is approximated to be five, given that the annual growth rate in the near future is fast enough. $5*EBIT$ is a popular “starting point” for mid-sized mature businesses that produce revenues between \$100 and \$150 million with a zero percent growth rate. The multiple of five is then adjusted upward for the company’s potential growth from the base case that assumes no growth. Furthermore, the final multiple employed to yield the numerical figure of an enterprise (transaction) value takes references from the current “comparable” transactions and often are the results of negotiations between buyers and sellers.

American Oxygen Corporation in this case, generates revenue of \$127.5 million and is expecting to grow at the annual rate of 25% in the next two years. It is thus a natural candidate for applying this rule to estimate the EBIT multiple. We first derive the EBIT after 2 years. It is estimated to be \$36.1 million, as we take the current EBIT of \$23.1million and multiplied it by $(1.25)^2$. This \$36.1million of EBIT is then multiplied by 5, which follows this rule of thumb in order to project the enterprise value of \$180.5M ($=\$36.1M*5$) at the present time. This implies that the current multiple between the projected enterprise value and the current EBIT is 7.8 ($=180.5/23.1$). Assuming a multiple measure of 5 for the base case that assumes no growth, the excessive numerical value of 2.8 ($=7.8-5$) is accounted for by American Oxygen’s potential growth in the future. (See Table 3 for the summary of this calculation.)

Solution 3

The projected EBIT multiple from the rule of thumb is 7.8. Multiplying the normalized EBIT of \$24.3 million by 7.8 results in the preliminary enterprise value of \$189.5 million. As equity value is the remaining value after debt, the preliminary equity value is then projected to be \$168.1 million, after deducting bank debt of \$21.4 million from the enterprise value of \$189.5 million. (See Table 4 for the summary of this projection.)

Solution 4

Since American Oxygen's buyer is willing to pay 7x EBIT for the enterprise value (\$170.1 million = \$24.3 million * 7) and assume the bank debt of \$21.4 million, this leaves \$148.70 million of equity value to the owners. In other words, the new buyer is willing to replace the current owners, John and Michael, by paying \$148.7 million directly to them and thus become the new owner who will be entitled to the Company's equity. However, the actual cash proceeds that eventually fall into the accounts of current owners will be less than this amount. This is due to accounting for "phantom stocks", closing costs and various taxes expenses. Furthermore, since the buyer is proposing deferred payments, it is also implied that there are two points in time for receiving funds from this buyer in this deal.

Regarding deferred payments, there are three items in this case: an earnout, non-competes and one-year consulting agreements. Buyers typically desire not to pay the full amount up front, due to their fear that the acquired companies might not perform to a promised level after being purchased. That is where the "earnout" comes in and becomes a part of deal. In this case, 15% of the enterprise value is proposed as an earnout, which amounts to \$25.52 million (=15%*\$170.10 million). Following the same rationale, buyers also prefer to acquire the current owners' expertise and non-compete agreements in order to continue the success of the acquired company. As these agreements are essential elements for the survival of a continuing operation, buyers generally require these agreements to be parts of deals without additional charges. In fact, the deferred payments (earnout, non-competes, consulting agreements) are forms of interest-free seller-financing in a deal structure. In this case, each agreement accounts for \$500,000. With two different contracts to two owners, the deferred payments from the non-competes and consulting agreements are totaled at \$2 million. After deducting bank debt of \$21.4 million and these deferred payments that totaled \$27.52 million, the remained equity is received at \$121.19 million (= Enterprise value of \$170.10 M – bank debt of \$21.4 M – deferred payments of \$27.52 M). (See Table 5 for the summary of these calculations.)

Buyers generally will insist on securing key employees with employment contracts and if it is not possible or desirable, non-competes will need to be put in place. In this case, in order for American Oxygen to be acquired, these contracts and non-competes will have to be secured at the expenses of the owners. "Phantom Stock" in this case refers to this expense and amounts to \$3 million for American Oxygen.

"Closing costs" are obvious expenses related to selling a business. In this case, there are fees paid to an investment banker, a law firm and a CPA firm. The investment banker is paid 1.7% of the enterprise (transaction) value, which is \$2.89 million (=1.7%*\$170.10 M). The fee charged by a law firm is \$30,000 and a CPA firm costs an additional \$10,000. These closing costs total \$2.93 million (= \$2.89 M to an investment banker + \$30,000 to a law firm + \$10,000 to a CPA firm).

The gain from selling companies is subject to a “capital gains” tax. After deducting the expenses of the “phantom stock” and “closing costs”, the cash proceeds of \$115.25 million ($=\$121.10 \text{ M} - \$3\text{M of phantom stocks} - \$2.93\text{M of closing costs}$) in hand is subject to this tax. With the federal tax rate at 25% and the state rate at 5%, the capital gains tax on this cash amounts to \$34.58 million ($=30\% * \115.25M). The deal thus yields net cash proceeds (before deferred payments) of \$80.68 million ($= \$115.25 \text{ M} - \text{taxes on cash of } \34.58M).

After ownership is transferred, assuming the conditions for receiving the earnout are met, the deferred payment of \$25.52 million from the earnout will again be subject to the capital gains tax. The total tax rate of 30% will be applied to this amount and results in a tax payment of \$7.65 million ($=30\% * \25.52M). The after-tax earnout will then be \$17.86 million ($=\$25.52 \text{ M} - \7.65 M).

Regarding the non-competes and consulting agreements, assuming these contracts are not violated, the payments received from these two sources will be subject to “ordinary income tax” on the individual level. The tax bracket that applies to John or Michael indicates an effective tax rate of 40% (at all levels of government). This results in a tax outflow of \$0.8 million ($=40\% * 2\text{M}$) where \$0.4 million of tax is on the non-competes ($=40\% * 1 \text{ M}$) and another \$0.4 million ($=40\% * 1\text{M}$) is from taxing the consulting agreements. Total taxes on the deferred payments amount to \$8.45 million ($=\$7.65\text{M} + \$0.4 \text{ M} + \0.4 M). After deducting these taxes from the total deferred payments of the earnout, non-competes and consulting agreements, the net cash proceeds after taxes will yield \$19.06 million ($= \$27.52 \text{ M of total deferred payments} - \$8.45 \text{ M of taxes on deferred payments}$). Adding the Cash Proceeds Excluding Deferred Payment of \$80.68 million to the \$19.06 million of after-tax deferred payments results in \$99.74 million of total net cash proceeds from selling American Oxygen to this buyer. Each owner will thus receive \$49.87 million, a 50% share of the net cash proceeds from this deal.

To conclude, there are significant differences among various business values. In this case, the enterprise (transaction) value of American Oxygen is \$170.10 million, while the equity value is estimated at \$148.70 million. However, after taking account of closing costs, taxes and possible expenses in securing key employees, the net cash proceeds are projected at a much lower figure of \$99.74 million. The differences among these business values could be a shock to many sellers. It is thus a good idea to prepare clients with an understanding of the reasons for these differences, so they can have a better grasp of the consequences of negotiations in each stage of selling a business.

REFERENCES

- Brigham, Eugene F and Joel F. Houston, (2010), *Fundamentals of Financial Management*, 6th Edition, CENGAGE Learning, Southern- Western.
- Roberts, Dennis J. New Jersey, (2009), *Merger & Acquisitions, An Insider's Guide to the Purchase and Sale of Middle market Business Interests*, 1st Edition, John Wiley & Sons, Inc.

Table 1: American Oxygen Corporation's Balance Sheet and Income Statement (in \$Million)

Balance Sheets:					
	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Accounts Receivable	4.3	6.2	8.2	9.8	12.4
Inventory	6.2	6.7	7.6	9.7	13.2
Net Fixed Assets	8.4	10.8	17.1	17.5	22.1
Total Assets	18.9	23.7	32.9	37.0	47.7
Liabilities					
Current Liabilities	3.2	3.8	7.5	11.1	10.5
Bank Debt:					
Revolover	0.6	1.4	3.7	3.4	8.3
Term	0.1	0.0	1.3	3.2	4.6
Equipment Loans	6.5	7.2	7.8	6.2	8.5
Total Bank Debt	7.2	8.6	12.8	12.8	21.4
Total Liabilities	10.4	12.4	20.3	23.9	31.9
Shareholders Equity	8.5	11.3	12.6	13.1	15.8
Liabilities and Equity	18.9	23.7	32.9	37	47.7
Income Statements					
	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	43.2	60.1	77.5	100.3	127.5
Cost of Goods Sold	23.7	30.1	35.7	55.8	65.7
Gross Profit	19.5	30.0	41.8	44.5	61.8
SG&A	12.0	21.4	27.0	24.5	34.2
Depreciation	1.1	1.4	2.5	3.4	4.5
EBIT	6.4	7.2	12.3	16.6	23.1
Interest Expenses	0.3	0.4	0.62	0.80	1.2
Pretax Income	6.1	6.8	11.68	15.8	21.9
Tax expenses (30%)	1.8	2.0	3.5	4.7	6.6
Net Income	4.3	4.8	8.2	11.1	15.3

Table 2: Normalization Adjustments

Normalization Adjustments:	
<u>Non-Recurring Item:</u>	
Lawsuit expense	\$ 250,000
<u>Owners' Perks:</u>	
Owners' ski rental fees and vacation expenses	40,000
<u>Other Salary-related Add-backs:</u>	
(1) Excessive salary expenses (2*\$350,000) (Comparable annual salary is at \$250,000, while the current owners are paid \$600,000 each)	700,000
(2) Additional bonuses due to excessive salaries (20%*\$700,000)	140,000
(3) Additional contributions to owners' retirement plans due to excessive salaries(10%* 700,000)	70,000
Total amount of add-backs	\$ 1,200,000
Plus: EBIT in Year 5	23,100,000
Normalized EBIT	\$ 24,300,000

Table 3: Application of “Rule of Thumb”

Rule of Thumb (Super Rule of Five):

For companies with annual revenues between \$100 million to \$150 million, the estimated current value of enterprise divided by the future EBIT in two years is approximated to be five.

Step 1: Project the future EBIT in two years

Current EBIT:		23.1
Annual growth rate for the next two years:	25%	
Future EBIT after two years [=23.1*(1.25)(1.25)]		36.1

Step 2: Apply the multiple of five to derive the current enterprise value

Projected current enterprise value (=5*36.1)		180.5
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Step 3: Derive the multiple used for the current EBIT

Projected current enterprise value		180.5
divided by the current EBIT		23.1
equal to the multiple used for the current EBIT		7.8

Table 4: Preliminary Valuation

		(\$ millions)
Normalized EBIT		24.3
Multiples from "Rule of Thumb"	7.8x	
Base Multiple	5x	
Growth	2.8x	
Multiples (Comparables): 6X to 9X	6X to 9X	
Chosen Multiple		7.8x
Preliminary Enterprise Value		189.5
Less: Bank loans (= current bank loans in Year 5)		21.4
Equity Value		168.1

Table 5: Cash-Plus-Deferred-Payments Deal Structure

(\$ million)			
Normalized EBIT	24.30	<u>Deferred Payments:</u>	
Selected Multiple	7	Earnout (15% of Enterprise Value)	25.52
Enterprise (Transaction) Value	170.10	Non-Competes (0.5*2)	1.00
		Consulting Agreements (0.5*2)	1.00
		<u>Total</u>	<u>27.52</u>
Less: Bank debt	21.40		
Equity Value	<u>148.70</u>	<u>Closing Costs:</u>	
		Investment Banker (1.7% of Enterprise Value)	2.89
Less: Deferred Payments	27.52	Legal	0.03
Equity Value Received (Excluding Deferred Payment)	121.19	Accounting	0.01
Less: Phantom Stocks	3.00	<u>Total</u>	<u>2.93</u>
Less: Closing Costs	2.93		
Pretax Cash Proceeds Before Deferred Payments	115.25	<u>Taxes:</u>	
Less: Taxes on Cash	34.58	<u>Capital Gain Tax (on Pre-Tax Sub-Total):</u>	
Cash Proceeds Before Deferred Payments	80.68	Cash-Federal (25%)	28.81
To each owner:		Cash-State (5%)	5.76
Net Cash Proceeds Before Deferred Payments	40.34	<u>Total</u>	<u>34.58</u>
<u>Deferred Payments:</u>		<u>Capital Gain Tax (on Earnout):</u>	
Earnout (15% of Enterprise Value)	25.52	Earnout -Federal (25%)	6.38
Less: Taxes on Earnout	7.65	Earnout -State (5%)	1.28
<u>After-tax Earnout</u>	<u>17.86</u>	<u>Total</u>	<u>7.65</u>
Non-Competes (0.5*2)	1.00	Ordinary Income Tax (40%)	
Less: Ordinary Income Tax (40%)	0.40	Non-Complete (40%*0.5*2)	0.40
<u>After-tax Non-compete</u>	<u>0.60</u>	Consulting Agreements (40%*0.5*2)	0.40
		<u>Total</u>	<u>0.80</u>
Consulting Agreements (0.5*2)	1.00		
Less: Ordinary Income Tax (40%)	0.40		
<u>After-tax Non-compete</u>	<u>0.60</u>		
Total Deferred Payments	27.52		
Less: Tax on Deferred Payments	8.45		
Total Net Deferred Payment	19.06		
To each owner	9.53		
Total Net Cash Proceeds from Selling Company	99.74		
To each owner	49.87		