



DSI White Paper

By Richard L. Wottrich



Middle Market Manufacturing Companies - Business Valuations

Smaller middle market manufacturing companies (\$10 Million to \$100 Million in revenues) are often difficult to value, at least to the satisfaction of the seller. Very often, a “follow the leader” valuation approach is utilized in which prior “public” transactions tend to influence new deals. These “measuring sticks” are often heavily discounted to reflect smaller market shares and limited capital of the company being valued. Just as frequently, static book value models coupled with discounted valuations of future anticipated cash flows are offered as “market value.”

Every owner wants a premium for his or her business, but the purchase prices paid for private companies usually do not mimic publicly traded firms. The problem arises when the sellers perceive a very high return on their internal investment (ROI), because they focus only on their net equity invested in the firm. When this unusually high ROI is compared to earnings that can be expected on the after-tax proceeds of an offer for the business, it looks anemic in comparison.

While public companies usually sell for high multiples of net income, the universal measurement for closely held companies is earnings before interest and taxes (EBIT). There can be a significant difference between the two. Public companies often sell for more than private companies for many reasons, including the availability of a ready market and of ready financing.

Smaller manufacturing companies are currently selling for between five and seven times EBIT. Higher multiples of EBIT are possible for unusually well run and well-positioned companies. EBIT can be expanded to include depreciation and amortization (EBITDA). EBIT can be adjusted (Adjusted EBIT) to include unusual ownership perks, benefits, and expenses that a strategic buyer may be confident will not be repeated post-investment.

The issue then becomes “How does a business owner generate a higher purchase price for his or her company?” DSI believes the answer is to be found in calculating the Economic Profit generated by the company now and potentially in the future.



In this valuation model, the purchase price for a business becomes the equilibrium point at which ownership transfers. The sellers believe that the purchase price exceeds their historical ability to generate economic value from the business. However, the buyer believes that the price is lower than its capacity to generate economic value from the same assets through efficient management. Put another way, there are valuation components at work here beyond the intrinsic value of the assets or the discounted value of known cash flows. How is this measured?

Acquisitions are enhanced by the generation of synergies, which are the additional Economic Profits that can be realized from assets under more efficient management. This is usually what is meant when a buyer is referred to as “strategic.” The ideal purchase price then should fall between the current market value of known assets and discounted future cash flows and the higher value level that includes the profits from these synergies.

This implies a “modular” approach to valuing businesses. The first two steps are to measure the current market value (CMV) of the company. Steps three and four attempt to value the future value of growth and buyer synergies. To accomplish steps one and two we first measure the Economic Profit (EP) of the company, which equals a company’s operating profit, minus its weighted average cost of capital (WACC), times its invested capital (Invested Capital).

$$\text{EP} = (\text{Operating Return} - \text{WACC}) \times \text{Invested Capital}$$

Invested Capital is essentially the sum of accounting debt and equity. For example, a company with an operating return of \$1,000,000, a WACC of 10% and Invested Capital of \$5,000,000 would have an EP of \$500,000 [(20% - 10%) x \$5,000,000 = \$500,000]. [Operating Return = \$1,000,000 divided by \$5,000,000 = 20%]

Therefore, the two components of CMV are (Step 1) its Invested Capital, plus (Step 2) the present value of its EP, in this case known as the present value of current operations (PV of Current Operations). In the example above, if we stopped here, the value of the company might be \$5,000,000 plus the present value of a stream of income (\$500,000) over a given time horizon (in this example ten years), for a market value range of \$7,500,000 to \$8,500,000. But have we really valued the company?

Two important considerations that are ignored in this rather static valuation model are (Step 3) the present value of future growth (PV of Future Growth) and (Step 4) the present value of buyer synergies (PV of Buyer Synergies). How are these concepts applied in the real world of business valuation?

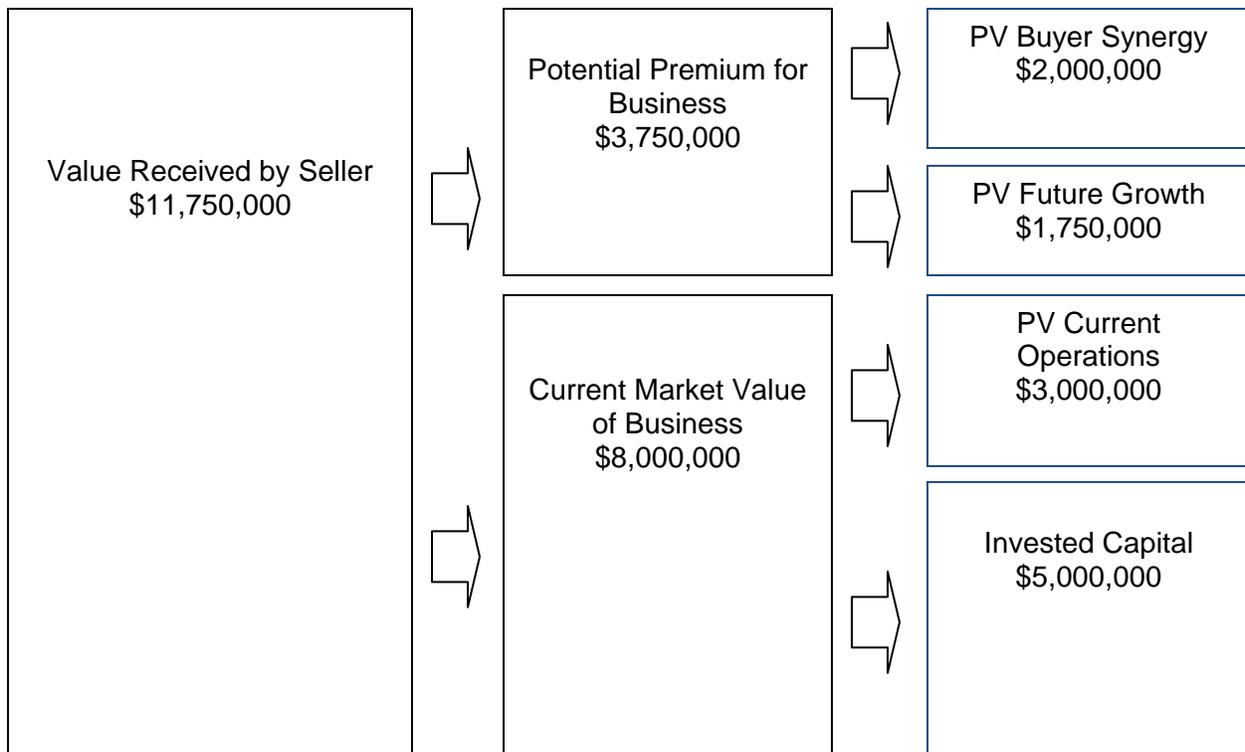
In the example below, which is a company DSI recently sold in Chicago, Illinois, the Invested Capital was valued at \$5,000,000 and its continuing EP (PV of Current Operations) was valued at \$3,000,000. Utilizing the same economic principals and the EP formula, assumptions were made as to the projected Future Growth of the business and the expected added growth produced through synergism with the buyer. The PV of Future Growth was priced at \$1,750,000. The PV of Buyer



Synergies was priced at \$2,000,000. The actual purchase price paid was \$5,000,000 (Invested Capital) + \$3,000,000 (PV Current Operations) + \$1,750,000 (PV Future Growth) + \$2,000,000 (PV of Buyer Synergies) = \$11,750,000.

This Economic Profit valuation method produced a premium for the business of approximately 32%. As you might expect, a buyer will tend to split the cash at close and deferred payments along fault lines corresponding with the valuation modules. The Invested Capital and PV of Current Operations typically are paid for with cash at close. The PV of Future Growth and PV of Buyer Synergies are typically represented by deferred payments.

The Economic Profit Valuation Method



In the Economic Profit valuation approach, any purchase price that falls somewhere within the Potential Premium for the Business is a "good price" for both the buyer and the seller.

This approach to business valuation is neither new nor revolutionary. In 1961, economists Merton Miller and Franco Modigliani suggested that a business' intrinsic value is the present value of the Economic Price that is expected to be generated in the future, discounted by its cost of its capital.

Our economic analysis modification of the Miller-Modigliani formula is as follows:

Value = Present Value of Current Operations + Present Value of Growth Opportunities, or:



DSI GLOBAL M&A

$$\text{Value} = \frac{\text{NOPAT}}{\text{WACC}} + \frac{I + (R - \text{WACC}) \times T}{\text{WACC} \times (1 + \text{WACC})}$$

Where:

NOPAT =	Net operating profit after taxes in the year before the forecast horizon begins.
WACC =	Weighted average cost of capital.
R =	Rate of return on invested capital.
I =	Present value of future fixed asset and working capital investments net of depreciation.
T =	Time period of forecast, or horizon period.

This is essentially the sum total of the parts in our aforementioned example. It may, however, be true that the Economic Price method of valuing companies is often overlooked in the sale and purchase of smaller manufacturing companies.

This DSI White Paper is for discussion purposes only. The pricing associated with a specific transaction will be different and unique to that transaction. DSI makes no representation or guarantees that the returns discussed herein are either to be expected or relied upon by a seller or buyer of any business.

Contact

Richard L. Wottrich
DSI Investment Banking Services, Inc.
870 Thornwood Lane
Glenview, Illinois 60025-4419 USA
Phone: 312-286-5315
Fax: 312-276-4477
E-Mail: richard.wottrich@gmail.com
DSI WWW: www.dsiglobalview.com
IMAP WWW: <http://www.imap.com>



INTERNATIONAL NETWORK OF M&A PARTNERS