



# Evaluating Strategic Alternatives with EVA

Making sound capital investment decisions with the right information.

by Michael J. Black

Middle market business owners and operators frequently confront strategic capital decisions, often with scant time and limited tools to assist in picking a path. However, the wrong capital investment decision can reverberate through a business for years by destroying value and depriving more deserving initiatives of scarce resources.

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**EVA analysis fundamentally measures whether shareholder value has been created or destroyed by measuring economic operating profits after subtracting the cost of the capital invested in the assets used to generate those profits.**

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Economic Value Added (EVA) analysis can assist in making decisions, reducing risk and increasing enterprise value over the long term.

Evaluating strategic alternatives challenges the owner or entrepreneur's sense of direction. "Which way do we go?" The forks in the road at these alternative junctions encompass a myriad of capital allocation decisions: new products, new equipment, sales strategies, strategic partnerships, capitalization, or even mergers and acquisitions. The effects of these choices can manifest immediately or over many years, but the ultimate sum of these decisions adds to or subtracts from the value of the business. Additionally, in a process to sell the business, demonstrating an established methodology for evaluating opportunities that require the commitment of resources reduces the perceived risk to future cash flows and supports a higher valuation. With the value of the enterprise in the balance, augmenting the decision-making process with evaluation tools seems prudent.

All businesses have some method for evaluating alternatives, whether explicit or not. In middle market companies, the gut feel of the entrepreneur frequently dominates

the process. Most often, the owner's personal capital and wealth, as well as a bank guarantee, can be at stake when major decisions are on the line. From a founder's perspective, abdominal navigation (gut feel) guided the company to its current success, so why change? Don't fix what isn't broken. However, the risk of choosing the wrong course increases as a business gains scale and the number of decisions multiplies. EVA offers a dispassionate and objective compass reading to assist the entrepreneur.

EVA analysis fundamentally measures whether shareholder value has been created or destroyed by measuring economic operating profits after subtracting the cost of the capital invested in the assets used to generate those profits. Capital has a cost, whether or not expressed in an interest rate, and ignoring it obfuscates economic reality.

$$\begin{aligned} \text{EVA} &= \text{Net Operating After Tax} - \text{Capital Charge} \\ \text{Capital Charge} &= \\ &(\text{Debt Invested} * \text{After-tax Cost of Debt}) + \\ &(\text{Equity Invested} * \text{Cost of Equity}) \end{aligned}$$

a review of EVA can be found in our INSIGHT article from Spring 2004 "EVA for Middle-Market Companies"

## THE EXAMPLE PROBLEM— NEW PRODUCT LAUNCH?

The success of horizontal drilling in the Bakken shale of North Dakota and the Marcellus shale of Pennsylvania has created demand for a new pressure transducer for oil and gas production. As a leading manufacturer of transducers for the energy industry, Halliburton has come to a company to produce the new product. Because of the high cost of development and production equipment, Halliburton has agreed to source this product solely from this company for a minimum of 5 years. Based on minimum order requirements, the project should generate annual operating cash flow of \$15MM. The project requires an investment in new machining equipment and plant capacity that will cost approximately \$50MM. The company can comfortably use existing borrowing capacity to fund

New Pressure Transducer
5 year minimum demand
No net investment in working capital
\$15M expected annual cash flow
\$50M investment
Borrowing cost at Libor + 2.5% = 2.75%

the investment.

The investment can be paid back in just over three years and the bank is willing to fund it. It looks good to the entrepreneur. The inclination is to sign the contract and order the equipment.

### THE ANALYSIS

The first step in an analysis is to get the nomenclature correct. A few observations:

**1.** Cash flow doesn't take into account the "expense of the equipment" or the tax charge on profits. Operating cash flow needs to be converted to Net Operating Profit After Tax (NOPAT). In our example, the equipment would have limited or no value after the contract term and therefore the cash flows need to be burdened by the economic cost of replacing the equipment at the end of its useful life. Tax laws allow this cost as a tax deduction, resulting in the \$15MM of annual cash flow turning into \$3.25MM of NOPAT.

$$[\$15M - (\$50 / 5 \text{ yrs})] * (1 - .35 \text{ tax rate}) = \$3.25MM \text{ of NOPAT}$$

**2.** The bank will fund the investment without a personal guarantee, but not without the full credit support of the business. As a result, the full blended cost of all the capital employed by the business must be considered, not just the loan rate. In addition, although the bank will offer the loan at a floating rate of interest, the debt must be borrowed over a five-year term. The cost of debt for five years adds an additional 175 BP, pushing the cost of debt to approximately 4.5%, and the after-tax cost to approximately 3%.

**3.** Determining the cost of equity requires a more complicated analysis, but we will as-

sume an 18% cost of equity for this prudently leveraged business.

4. The mix of debt and equity capital in this business after making the investment is approximately 40% and 60%, respectively.

An annual EVA analysis of this opportunity yields the following:

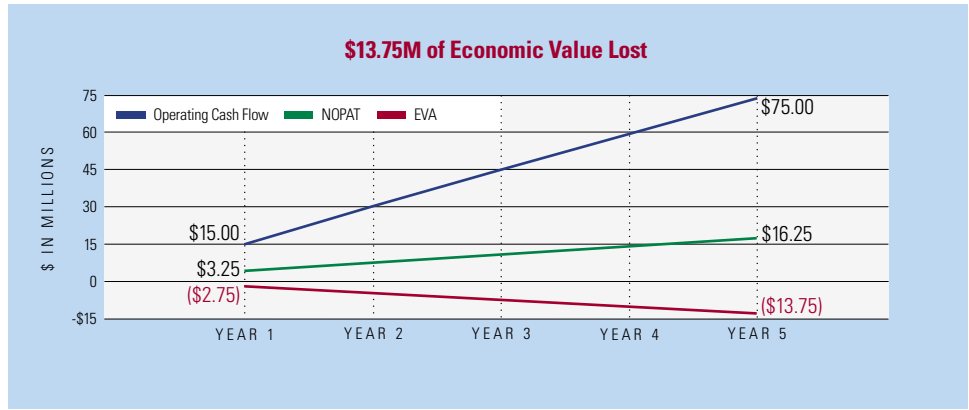
$$\text{EVA} = \text{NOPAT} - (\text{Debt Capital Charge} + \text{Equity Capital Charge})$$

$$= \$3.25\text{MM} - [(3\% * \$20\text{MM}) + (18\% * \$30\text{MM})]$$

$$\text{EVA} = \$3.25\text{MM} - (\$0.6\text{MM} + \$5.4\text{MM}) = -\$2.75\text{MM per year}$$

As the graph above shows, over five years \$13.75MM of economic value would be destroyed in contrast to the misleading positive measures of operating profit and NOPAT.

How can the owner take advantage of this new opportunity without damaging the economic value of the business? Careful examination of the starting conditions and assumptions may lead to the answer. Armed with knowledge of EVA, negotiating with the customer (Halliburton) may yield a higher initial selling price for the new pressure transducer and correspondingly higher NOPAT. As manufacturing efficiencies increase over time, savings could be passed on to the customer in the form of lower prices while operating profits are maintained, thus creating positive EVA. Perhaps a reexamination of the capital expenditure required could lead to lower cost alternatives and a correspondingly decreased budget. If the capital employed in the project were reduced, the economic profit realized



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**Asking whether an initiative is profitable is not enough. Rather, the question should be whether the return exceeds the weighted average cost of capital employed? In the long term, the discipline of using EVA in the process of evaluating strategic alternatives will guide the entrepreneur in allocating capital resources and, over time, to increase the value of the business.**

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may exceed the capital charge hurdle.

**THE CONCLUSION**

The simple example above highlights the importance of using the EVA tool in the assessment of opportunities and initiatives. Without an objective structure, the unsuspecting (however confident) business owner may inadvertently make decisions that destroy shareholder value. Asking whether an initiative is profitable is not enough. Rather, the question should be whether the return exceeds the weighted average cost of capital employed? In the long term, the discipline of using EVA in the process of evaluating strategic alternatives will guide the entrepreneur in allocating capital resources and, over time, to increase the value of the business. ♦



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