PURDUE COLUMN

Earning a Positive Net come is Not Good Enough

Economic Value Added Better Measure of Success

By Josh Detre, Michael Gunderson, Brian Briggeman, and Michael Boehlje

ure, your accountant asserts that you have earned a profit, but you could still be losing money! For example in Table 1, a privately-held seed company had revenues last year of \$2.5 million on \$2.4 million in expenses, giving it an accounting profit of \$100,000. However, the owner has \$1.5 million of equity invested and could earn 10 percent in other investment opportunities. Thus, the equity could have generated a return of \$150,000. The economic profit associated with the firm is actually the Generally Accepted Accounting Procedures (GAAP) profit minus the value of the opportunity given up, which is negative \$50,000. By choosing to invest in the seed company instead of the other investment opportunities, \$50,000 of value was destroyed.

The fundamental concept of this Economic Value Added (EVA) example is not whether the business revenues exceed explicit costs, but whether the return is sufficient to compensate the equity capital invested in the firm at its required rate of return (i.e. investing the equity in other investment opportunities). Firms can generate a positive net income according to GAAP rules and legitimately report to the public that they are "profitable" by typical accounting terminology. However, these firms destroy value if accounting profit is inadequate to compensate the equity capital at its required rate of return. The end result is that even profitable firms do not always create value. Over time, a firm that consistently destroys wealth will be shunned by investors as it moves its funds elsewhere.

Economic profit or EVA measures the value created by a business after accounting for the cost of all resources, including both debt and equity capital. The difference between EVA and accounting profit is essentially the cost of equity capital (how much return your investors demand). Numerous businesses, such as AT&T, Briggs and Stratton, Coca-Cola, and the U.S. Postal Service, utilize EVA when measuring performance rather than accounting profit because it accounts for all costs and is thus more useful in measuring bottom-line performance.

COMPUTING EVA

The mechanics of computing EVA for a seed business are relatively straightforward as reflected in Table 2. Once operating profit has been calculated, a charge for taxes and interest paid on debt is deducted to obtain net operating profit after taxes and interest. The cost of equity capital is computed as the equity of the business times the rate of return required by investors. This required rate is in reality a rate of return that could be obtained on the funds if they were invested with similar risk as the company. A positive EVA means the firm is generating a return to invested capital that exceeds the required rate of return on the invested capital. Negative EVA indicates that the firm did not generate a sufficient return to cover the cost of its equity capital and all other costs.

IMPROVING EVA

What insight does EVA provide about financial performance of a business and how to improve it? Like any financial measure,

TABLE 1: ACCOUNTING VERSUS ECONOMIC PROFITS	
Accounting Profit	Economic Profit
\$2,500,000	\$2,500,000
\$2,400,000	\$2,400,000
\$100,000	\$100,000
	\$150,000*
	(\$50,000)
	Accounting Profit \$2,500,000 \$2,400,000

* Equity • Required Rate of Return 1,500,000 • 10%

TABLE 2: CALCULATING ECONOMIC VALUE ADDED (EVA)	
	Net Sales
Minus	Operating Expenses
Equals	Operating Profit
Minus	Interest
Minus	Taxes
Equals	Net Operating Profit After Taxes and Interest
Minus	Cost of Equity Capital
Equals	Economic Value Added (EVA)

the trend over time may be more valuable than the absolute value of EVA. Even if EVA is positive, a declining EVA suggests that financial performance is deteriorating. If this trend continues, EVA will become negative and financial performance will be unacceptable.

So what are some corrective actions if EVA is negative? First, operating performance with respect to operating profit margins (reducing costs or increasing prices) and/or asset turnover ratios (expanding sales) could be improved to generate more revenue without using more assets. Second, capital invested in the business might be reduced by selling under-utilized assets. This strategy will simultaneously improve operating performance through a higher asset turnover ratio and reduce the capital charge against those earnings because of a reduced debt or equity capital investment. Third, capital may redeployed and invested in projects that have higher operating performance than current investments. Through the restructuring of assets, seed businesses may be able to reduce the proportion of poor-performing assets and reinvest the proceeds in higheryielding assets. EVA analysis forces a business to identify a true rate of return for each of its profit centers as well as for the company as a whole.

Finally, if the business is not highly leveraged and the interest rate is lower than the required return to equity, changing the capital structure might be an option. Using debt as the primary source of funds to expand or grow the business in the future will increase the EVA. Even though this strategy may increase interest costs, it will improve the EVA because a larger proportion of lower cost debt and a smaller proportion of higher cost equity can be used to finance the business.

Josh Detre, Michael Gunderson, and Brian Briggeman are U.S. Department of Agriculture National Needs Fellows. Michael Boehlje, Ph.D., is a professor with the Center for Food and Agricultural Business at Purdue University. For more information on this topic, e-mail Boehlje at boehlje@purdue.edu. Center for Food and Agricultural Business information is at www.agecon.purdue.edu/cab.



