

---

# ***Economic Value Added (EVA) for Small Business***

Esa Mäkeläinen  
and  
Narcyz Roztocki

# ***What is Economic Value Added (EVA)?***

---

A value-based financial performance measure

A measure reflecting the absolute amount of shareholder value created or destroyed during each year

A useful tool for choosing the most promising financial investments

An effective protection against shareholder value destruction

A tool suitable to control operations

A measure highly correlated with stock prices

A measure that can be maximized - EVA has not steering failures like ROI and EPS (maximizing these measures might lead to non-optimal outcome; not max. shareholder value)

# ***What is Economic Value Added (EVA)? (Cont.)***

---

An estimator for company's true economic value creation, unlike the traditional measures has focus on **shareholder value** creation

A good basis for management compensation systems to motivate managers to create shareholder value

A tool more useful than rate of return (ROI) in controlling and steering day-to-day operations

A concept practically the same as Economic Profit (EP), Residual Income (RI) and Economic Value Management (EVM)

A registered trademark owned by Stern Stewart & Co. supporting more than 250 large companies around the world

# ***EVA Basic Premise***

---

Managers are obliged to create value for their investors

Investors invest money in a company because they expect returns

There is a minimum level of profitability expected from investors, called capital charge

Capital charge is the average equity return on equity markets; investors **can achieve** this return easily with diversified, long-term equity market investment

Thus creating less return (in the long run) than the capital charge is economically not acceptable (especially from shareholders perspective)

Investors can also take their money away from the firm since they have other investment alternatives

# ***Why is EVA also useful for small companies (even with less than 100 employees) ?***

---

Traditional performance measures used by small companies, such as sales or profits alone, are unable to describe the company's true business results and sometimes lead to wrong business decisions

EVA calculation is simple, since only main data contained in income statement and balance sheet is needed

EVA reflects company's performance in dollars

Positive EVA indicates value creation

Negative EVA indicates value destruction

Series of negative EVA is a signal that restructuring in a company may be needed

# ***Why is EVA also useful for small companies (even with less than 100 employees) ? (Cont.)***

---

The EVA concept is easy to understand and easy to use

EVA helps to understand the concept of profitability even by persons not familiar with finance and accounting

In a small company, managers can make the EVA concept transparent to all employees in a short time

EVA helps to convert a small company's strategy into objectives tangible for all employees

EVA is a useful tool for allocation of a small company's scarce capital resources

The EVA concept integrated in a small company's decisions making process improves its business performance because managers having deeper knowledge about capital and capital cost are able to make better decisions

# ***What is Needed to Calculate Company's Economic Value Added (EVA)?***

---

Only the following information is needed for a calculation of a company's EVA:

Company's Income Statement

Company's Balance Sheet

## ***Illustration: Common Income Statement***

---

<b>Net Sales</b>	<b>2,600.00</b>
Cost of Goods Sold	-1,400.00
SG&A Expenses	-400.00
Depreciation	-150.00
<u>Other Operating Expenses</u>	<u>-100.00</u>
<b>Operating income</b>	<b>550.00</b>
<u>Interest Expenses</u>	<u>-200.00</u>
<b>Income Before Tax</b>	<b>350.00</b>
<u>Income Tax (25%)</u>	<u>-140.00</u>
<b>Net Profit After Taxes</b>	<b>210.00</b>



# *Illustration: Common Balance Sheet*

## **ASSETS**

### **Current Assets**

Cash	50.00
Receivable (A\R)	370.00
Inventory	
Other Current Assets	145.00
<b>Total Current Assets</b>	<b>800.00</b>

### **Fixed Assets**

Property, Land	650.00
Equipment	410.00
Other Long-Term Assets	490.00
<b>Total Fixed Assets</b>	<b>1,550.00</b>

**TOTAL ASSETS**                      **2,350.00**

## **LIABILITIES**

### **Current Liabilities**

Accounts Payable (A\P)	100.00	
Accrued Expenses (A\E)	250.00	
235.00      Short-Term Debt		300.00
<b>Total Current Liabilities</b>	<b>650.00</b>	

### **Long-Term Liabilities**

Long-Term Debt	760.00
<b>Total Long-Term Liabilities</b>	<b>760.00</b>

### **Capital (Common Equity)**

Capital Stock	300.00
Retained Earnings	430.00
<b>Year to Date Profit/Loss</b>	<b>210.00</b>
<b>Total Equity Capital</b>	<b>940.00</b>

**TOTAL LIABILITIES**                      **2,350.00**

# ***EVA Calculation Steps***

---

1. Calculate Net Operating Profit After Tax (NOPAT)
2. Identify company's Capital (C)
3. Determine a reasonable Capital Cost Rate (CCR)
4. Calculate company's Economic Value Added (EVA)

An illustration of the EVA calculation using the data from slides 8 and 9 will follow.

# ***Step 1: Calculate Net Operating Profit After Taxes (NOPAT)***

---

<b>Net Sales</b>	<b>2,600.00</b>
Cost of Goods Sold	-1,400.00
SG&A Expenses	-400.00
Depreciation	-150.00
<u>Other Operating Expenses</u>	<u>-100.00</u>
<b>Operating income</b>	<b>550.00</b>
<u>Tax (25%)</u>	<u>-140.00</u>
<b>NOPAT</b>	<b>410.00</b>

Note: This NOPAT calculation does not include the tax savings of debt. Companies paying high taxes and having high debts may have to consider tax savings effects, but this is perhaps easiest to do by adding the tax savings component later in the capital cost rate (CCR)

# *Step 1: Calculate Net Operating Profit After Taxes (NOPAT) (Cont.)*

---

An alternative way to calculate NOPAT:

Net Profit After Tax	210.00
<u>Interest Expenses</u>	<u>+200.00</u>
<b>NOPAT</b>	<b>410.00</b>

## ***Step 2: Identify Company's Capital (C)***

---

Company's Capital (C) are

Total Liabilities less Non-Interest Bearing Liabilities:

Total Liabilities	2,350.00
less	
Accounts Payable (A\P)	-100.00
Accrued Expenses (A\E)	-250.00
	-----
<b>Capital (C)</b>	<b>2,000.00</b>

## ***Step 3: Determine Capital Cost Rate (CCR)***

---

In this example:  $CCR^* = 10\%$

Because:

Owners expect 13 % return\* for using their money because less are not attractive to them; this is about the return that investors can get by investing long-term with equal risk (stocks, mutual funds, or other companies). Company has 940/2350 =40% (or 0.4) of equity with a cost of 13%.

Company has also 60% debt and assume that it has to pay 8% interest for it. So the average capital costs would be:

$CCR^{**} = \text{Average Equity proportion} * \text{Equity cost} + \text{Average Debt proportion} * \text{Debt cost}$   
 $= 40\% * 13\% + 60\% * 8\% = 0.4 * 13\% + 0.6 * 8\% = 10\%$

\* Note: CCR depends on current interest level (interest higher, CCR higher) and company's business (company's business more risky, CCR higher).

\*\* Note: if tax savings from interests are included (as they should if we do not want to simplify), then CCR would be:

$CCR = 40\% * 13\% + 60\% * 8\% * (1 - \text{tax rate}) =$   
 $0.4 * 13\% + 0.6 * 8\% * (1 - 0.4) = 8.08\% \text{ (Using 40 \% tax rate)}$

## ***Step 4: Calculate Company's EVA***

---

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - C * \text{CCR} \\ &= 410.00 - 2,000.00 * 0.10 \\ &= 210.00 \end{aligned}$$

This company created an EVA of 210.

Note: this is the EVA calculation for one year. If a company calculates EVA e.g. for a quarterly report (3 months) then it should also calculate capital costs accordingly:

Capital costs for 3 months:  $3/12 * 10\% * 2,000 = 50$

Capital costs for 4 months:  $4/12 * 10\% * 2,000 = 67$

Capital costs for 6 months:  $6/12 * 10\% * 2,000 = 100$

Capital costs for 9 months:  $9/12 * 10\% * 2,000 = 150$

# ***The Complete Procedure: Calculate EVA in the Internal Reporting***

---

<b>Net Sales</b>	<b>2,600.00</b>
Cost of Goods Sold	-1,400.00
SG&A Expenses	-400.00
Depreciation	-150.00
<u>Other Operating Expenses</u>	<u>-100.00</u>
<b>Operating income</b>	<b>550.00</b>
<u>Tax (25%)</u>	<u>-140.00</u>
<b>NOPAT</b>	<b>410.00</b>
<u>Capital costs (10% * 2000)</u>	<u>-200.00</u>
<b>Economic Value Added (EVA)</b>	<b><u>210.00</u></b>

Note: In this example (for one year) the capital costs are calculated on a yearly basis. E.g. capital costs for 3 months:  $3/12 * 10\% * 2,000 = 50$



# ***EVA Implementation by a Small Company***

---

EVA calculation is just a starting point

Permanent EVA improvement has to be the main management objective

EVA has to be calculated periodically (at least every three months)

Changes in EVA have to be analyzed

EVA development is the basis for a company's financial and business policy

# *How can the Management in a Small Company Improve EVA?*

---

Try to improve returns with no or with only minimal capital investments

Invest new capital only in projects, equipment, machines able to cover capital cost while avoiding investments with low returns

Identify where capital employment can be reduced

Identify where the returns are below the capital cost; divest those investments when improvements in returns are not feasible

# *Conclusion*

---

EVA is an appropriate management tool for small business

Economic Value Added (EVA) is easy-to-calculate

Periodical EVA calculation and analysis can be done with minimal effort because only few basic data have to be entered in a common spreadsheet

EVA calculation is a starting point for improvement in financial and business policy

Scarce capital resources of a small company can be more efficiently allocated using EVA than using intuition or traditional methods

EVA implementation in a small company will result in a better business performance, because of better understanding of the objectives (especially near the floor/operating activities)

## ***Conclusion (Cont.)***

---

Since EVA helps the organization to realize that capital is a costly resource the most immediate effect of EVA implementation is in most cases dramatic improvement in capital efficiency (improved capital turnover)

Compared to conventional measures, EVA is an epochal measure since it can be maximized: it is the better the bigger EVA is. With traditional measures that is not the case, since ROI can be increased with ignoring below average projects and EPS/Operating Profit/Net profit can be increased simply investing more money in the company

EVA helps enormously the management and employees to see what should be real objective of the company, since it makes clear to all what profitability really is

# *Questions ?*

---

Questions, Suggestions, Ideas as well as Complains are  
WELCOME!

## **Esa Mäkeläinen**

(Europe, Asia, Africa)

E-mail: [esa.makelainen@evanomics.com](mailto:esa.makelainen@evanomics.com)

[www.evanomics.com](http://www.evanomics.com)

## **Narczyz Roztocki**

(Northern America, South America, Australia)

E-mail: [narst8@pitt.edu](mailto:narst8@pitt.edu)

<http://www.pitt.edu/~narst8>