

Economic Value Added and Value-Based Management: Evidence of Jordan

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Abstract

EVA (Economic Value Added) is a modern financial measurement tool that determines if a business is earning more than its true cost of capital. Including a cost for the use of equity capital sets EVA apart from more popular measures of bank performance, such as return on assets (ROA), return on equity (ROE), net banking income and the efficiency ratio, which do not consider the cost of equity capital employed. As a result, these measures may suggest a bank is performing well, when in fact it may be diminishing its value to its shareholders. EVA is a tool that focuses on maximizing shareholder wealth.

The aim of this paper is to extensively discuss the underlying concept of Economic Value Added, to present its strengths and weaknesses, to discuss the revealed results from the empirical studies up to now concerning its usefulness as a financial performance measure, and finally, to show the results of the empirical study on the issue conducted in Jordanian capital market. Despite all positive and encouraging comments about EVA, the empirical literature which came out provided mixed results for the usefulness of EVA in explaining stock returns. Studies focused on whether EVA is more highly associated with stock returns than other performance measures provided mixed and controversial results. This study employs pooled time-series, cross sectional data of 14 banks in the ASE over the period 2004-2009 to examine whether EVA or the traditional accounting-based measures are associated more strongly with stock returns. Relative information content tests reveal that stock returns are more closely associated with earnings per share than with EVA. However, incremental information content tests suggest that EVA adds considerable explanatory power to earnings per share in explaining stock returns.

Key Classification: G21, G31, G32, M21, M41, O31

Keywords: Performance Measures, EVA, Shareholder Value, Banks, Motivation System

(1991) argued that accounting earnings fails to recognize the cost of capital and the riskiness of a firm's operations. Earnings, EPS and earnings growth are misleading measures of corporate performance. As earnings or EPS derived from accounting information can be easily manipulated. It is believed that for a new tool to be adopted it must have more elements in its calculation as compared to current performance tools such as EPS. The tool should combine factors such as economy, accounting and market information in its assessment consideration.

From the review of performance measurement literature, Economic Value Added (EVA) has recently attracted much attention as a tool that takes into consideration many factors which were discussed earlier. EVA incorporates more information as compared to traditional tools (i.e. EPS, Dividend Per Share (DPS), Net Operating Profit After Tax (NOPAT) and earnings). Stewart Company has advocated that an Economic Value Added (EVATM) should be used instead of earnings or cash from operations as a measure of both internal and external

Introduction:

Company performance can be measured by using various techniques. Company performance measurement can be a quantitative or qualitative characterization of performance. However, quantitative performance measurement is argued to provide a better view on company performance. Quantitative performance refers to physical measurement that enables investors to evaluate business activities through financial statements of the company.

The most basic measurement is earnings, such as "earnings per share" or EPS. This measurement divides earnings by number of outstanding shares. Investors, use many other tools in evaluating stocks, but it all begins and usually ends with earnings. The financial success or failure of most firms depends on their ability to generate profit from their normal ongoing core business. However, it is arguable if earnings or profit alone can be considered as the best performance tool. In an influential study, Stewart

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the publicly available information contained in strong form of the efficient market hypothesis, future performance. Further, under the semi-rational form of the efficient market hypothesis, also used by these same stakeholders to predict parties to assess current firm performance, and is managers, shareholders and other interested financial statement information is then used by returns on assets, investment and equity). This ratios (including earnings per share and the flows from operations) or financial statement magnitudes (such as profits, earnings and cash provides by either standard accounting objective, shareholder wealth is traditionally resources. In order to operationally this shareholders by the efficient allocation of managers is to maximize the wealth of An accepted financial axiom is that the role of analysts.

widespread adoption of EVA by security tool and Herzberg (1998) said that there has been such as EVA becomes management's primary being relegated to second-class status as metrics traditional corporate performance measures are McClellan (1998) similarly observed that about 3 percent of the change in MVM. AVM. Consequently the change in EPS explains only seven times more than sales growth, the change in Market Value Added (MVA), or found the change in EVA explains 32 percent of changes in shareholder wealth. Tans (2003) (accounting measurement tool) in explaining than its closest accounting-based competitor component basis and is almost 20% better single best measure of wealth creation on a EVA stands well out from the crowd as the supporter, Stewart (1994) had suggested that while others are not. As an EVA advocate and performance as compared with traditional tools had found that EVA is a better predictor of results in using EVA as performance tool. Some However, some previous studies have found mix investment and allocation of resources decisions. help investors in Malaysia make better is hoped that the introduction of this tool will and capacity to provide more vital information. If corporate performance due to its transparency the traditional accounting measures for assessing gained significant attention as an alternative to performance. Isa and Lo (2001) said EVA has

performance. But simply, EVA measures the comprehensive measure of operating Economic Value Added (EVA) is a

2.1 EVA Defined

2. Theoretical Framework

recommendation.

empirical results. Final section conception and methodology. The fifth section contains The fourth section contains data and The third section discusses the literature review. EVA and other value-based performance metrics. Framework that explains the concept of five main areas. The second section Theoretical The remainder of the paper is sub-divided into

banks.

to try to implement it in one of the Romanian EVA and its advantages compared to other or used, the purpose of this study is to introduce system this measurement method is not familiar performance. As in the Jordanian Banking well known as other measures of bank to be implemented in U.S. in 1994) and is not as application in banks is relatively new (it started language within the corporate culture. The EVA system and in this way it motivates managers to EVA is an appropriate tool for motivation divisions and firms.

could monitor the profitability of their factories, gauge the security of their loans and managers spot over or under priced stocks, lenders could wealth. With such a measure, investors could and reliable measurement of shareholders, corporate managers have been seeking a timely empirical finance. For years, investors and a, if not the key feature of contemporary search for a superior measure of firm valuation is Lee (1996, p. 32), for example, argues that the parties interested in aspects of firm performance. a measure would prove invaluable to the various Makhlis (1997). This is despite the fact that such changes in shareholder wealth (Lehn and suggests that there is no single accounting based Unfortunately, the empirical literature to date these variables is readily interpreted by the market, and thereby incorporated into future

change in financial worth of an enterprise from one year to the next. It is a more comprehensive financial measurement tool than net income (revenues minus expenses) alone, because it includes the cost of the capital used to generate that income. EVA is superior to other measures of financial performance because of the following:

EVA links the use of capital with unit financial performance and provides a business focus for unit management. EVA provides an incentive to employees to minimize expense and capital employed rather than to maximize the amount of budget resources available. EVA empowers employees who are accountable for producing maximum results and minimizing resources used.

2.2 EVA vs. Other Traditional Performance Measures :

Including a cost for the use of equity capital sets EVA apart from more popular measures of bank performance, such as return on assets (ROA), return on equity (ROE) and the efficiency ratio, which do not consider the cost of equity capital employed. As a result, these measures may suggest a bank is performing well, when in fact it may be diminishing its value to its shareholders. Every useful performance metric attempts to measure changes in shareholder value. Economic value added (EVA) is the best metric available. The others each have significant drawbacks: Traditional income measures, including operating profit, earnings before taxes, net income and earnings per share, can be easily manipulated, and they do not account for the cost of equity.

Financial markets are interested in knowing how the reported profits weigh against the cost of financial resources employed. Reported profits without consideration for cost of capital are irrelevant. Market-based measures, including market value added (MVA), excess return and future growth value (FGV), can only be calculated for publicly-traded entities. Cash flow measures, including cash flow from operations (CFO) and cash flow return on investment (CFROI), include neither the cost of equity nor the cost of debt (Tortella, 2002).

2.3 Other EVA Strong Points vs. Other Traditional Performance Measures:

EVA is an easier concept of profitability than ROI and furthermore, it can be translated into day-to-day operations. Theoretically EVA is much better than conventional measures in explaining the market value of a company. Financial theory suggests that the market value of a company directly depends on the future EVA-values. The market value of a company = Book value of equity + present value of future EVA. A bank's present value should equal its invested capital plus the present value of future EVA and if the bank's present value is lower, the stock is undervalued and vice versa. Value of a bank's share is equal the market value of assets and the sum of EVAs of all future periods discounted back to the present. When a bank no longer earns a return on its incremental investments greater than its cost of capital, no EVA is added from new investments.

When the costs of employed capital are shown in the income statement the importance of capital from the viewpoint of profitability could easily be seen. After realizing the true costs of capital managers are often able to decrease excess employed capital considerably.

Since EVA may be calculated for private entities or for divisions within companies, it can be used as a motivational tool deep within the organization. Traditional managers understand that their companies need to control operating costs and succeed in the commercial markets. Today, companies also must compete in the capital markets by keeping their cost of capital low, especially in the banking industry.

EVA Implementation

2.4 Advantages of EVA

National EVA is used to fund the incentive award program. EVA is also calculated at the performance cluster and area levels. Postal employees share in the financial successes measured by national EVA and their organizational Customer Perfect Goal attainment. Employees are encouraged to build the value of national EVA, to encourage sustained performance and promote continuous EVA improvement, the incentive sharing with

company's stock to rise. EVA's long term implementing an EVA policy would trigger a Hedley (1997) have claimed in their report that performance is significant. Further, Burkette and and profitability, its ability to boost stock EVA does not only improve banks performance debt capital. Davidson (2003) argued that while the cost of equity for shareholders, as opposed to publicly traded companies because it deals with Berry (2003) said EVA is ideally suited to

3. Literature Review

less frequent rate increases, Davidson (2003) passed on to our customers through smaller and of increased efficiency and improved service are Customer Perfect goal achievement. The benefits employees based on their organizational executive and administrative schedule (EAS) by Postal Career Executive Service (PCESE) and the funds generated by national EVA are shared satisfaction and employee commitment because EVA links operating performance with customer catalyst for continued performance improvement. provides a measure to evaluate success and a When linked to an incentive award system, EVA

improvement. focus towards continuous profitability existing deployments of capital and turn our additional investments. It causes us to challenge and producing long-term value through directs our efforts towards growing our business term return on total assets and investments. EVA directed beyond short-term profitability to long-operating performance. Management attention is of the returns required on investments and transformed to recognize and include a measure performance against budget has been traditional focus on measuring annual whole business and creating value. Our employees. EVA emphasizes managing the performance more relevant to all postal Postal Service operations. It makes financial number that is applied across the full spectrum of The advantage of EVA is that it is a single term value. current operating results to the detriment of long-rather than short-term actions that may improve long-term value enhancement is emphasized, on EVA results in those years. Accordingly, employees is paid out over several years based

claimed that the difference is probably due to the other studies that observed that EVA companies observed her studies tends to conflict with some displace. Studies carried out by Torrella (2002) the measurement systems it has claimed to originally claimed - in fact, it is no better than show that this correlation is much weaker than stock market performance. Recent evidence has between the adoption of EVA measures and remember the strong correlations claimed Armitage et al. (2001) states managers will

al. (2000). supported by studies carried out by Riceman et increase in the MVM. This observation is present higher levels of correlation with the and MVM, and concludes that traditional tools sometimes negative) correlation between EVATM example, Fernandez (2001) observes a low (and questioned the efficiency of EVATM. For On the other hand, some empirical studies have management compensation (Stem et al., 1989).

shareholder value by being a basis for It can be used to motivate managers to create managers to act more like owners (Tully, 1993). purpose of EVA is to change the behavior of managerial compensation (Torrella, 2002). The frequently been used in the determination of compensation plan. EVA measures have performance and also can be used as incentive tools (as company valuation) for use in corporate significant attention as alternative to traditional Isa and Lo (2001) had said that EVA has gained

2001). traditional accounting measures of EPS, Return on Asset (ROA) and ROE (Chen and Dodd, terms but not accounting terms it provides a net. By focusing on financial results in economic economic information giving it a much wider EVA is a combination of market, accounting and information or accounting information, however industries only concentrate on financial Tans (2003) observes that most tools in incentives for capital allocations (Booth and performance is not compromised in favor of short-term results and provision at correct

Interest (Tax Rate X Interest Expense)

NPAT = Profit & Lost Before Tax + Interest Expense – Income Taxes – Tax Shield on Where,

EVA = NPAT – (WACC X Invested Capital).

Cordeiro and Kent Jr (2001) which is as follows: In this study, EVA is calculated based on

Calculation Of EVA :

$$\Delta ROE + d1 \text{ EVA}_{t-1} + d2 \Delta \text{EVA}_{t-1} + u7t \text{ (7) : Returns} = p0 + c1 \text{ ROE} + c2 + d1 \text{ EVA}_{t-1} + d2 \Delta \text{EVA}_{t-1} + udt$$

$$\text{Equation (6) : Returns} = n0 + d1 \text{ ROI} + d2 \Delta \text{ROI} + d1 \text{ EVA}_{t-1} + d2 \Delta \text{EVA}_{t-1} + udt$$

$$\Delta \text{EPS}_{t-1} + d1 \text{ EVA}_{t-1} + d2 \Delta \text{EVA}_{t-1} + u7t \text{ (2) : Returns} = i0 + a1 \text{ EPS}_{t-1} + a2$$

measures are three (equations 2-7):

developed to explore the incremental information content of the pairwise combination of these new equations (variations) that have been and one value based performance measure. The incorporating the combination of one traditional and Harris (1991) model was extended regression model. For this purpose the Easton reveal the information usefulness of each sectional data (all years) will be employed to Gopalakrishnan, 1993). Pooled time series cross variables p and p (Cheng, Chenug and variable p, and R2. p denotes the R2 due to both increase in R2 due to variable p, conditional on coefficient of determination, R2 \p, denotes the to that provided by another measure. The examine whether one measure adds information and West (2001). The purpose of these tests is to employed (Chen and Dodd, 2001; Worthington incremental information content tests will be To explore the second research question the end to three months after the current fiscal year extending nine months prior to current fiscal year Returns are the annual compounded returns

Where, for all equations:

$$\Delta \text{EVA}_{t-1} + u4 \text{ (4) : Returns} = d0 + d1 \text{ EVA}_{t-1} + d2 \Delta \text{EVA}_{t-1} + u3$$

$$\Delta \text{ROE} + u3 \text{ (3) : Returns} = c0 + c1 \text{ ROE} + c2 + u2$$

$$\text{Equation (2) : Returns} = b0 + b1 \text{ ROI} + b2 \Delta \text{ROI} + u1$$

$$\Delta \text{EPS}_{t-1} + u1 \text{ (1) : Returns} = a0 + a1 \text{ EPS}_{t-1} + a2$$

Worthington and West (2001) also found similar information than Residual Income-RI (R2 = 2.3 per cent), and EVA (R2 = 2.0 per cent).

The results of the present study show that EPS (R2 = 1.4 per cent) provide more information in explaining stock returns than EVA (R2 = 0.9 per cent). Biddle, Bowen and Wallace (1997) found that Earnings Before Extraordinary Items-EBEI with an R2 = 9.0 per cent provides more information than Residual Income-RI (R2 = 2.3 per cent), and EVA (R2 = 2.0 per cent).

and Chen and Dodd (2001). Wallace (1997), Worthington and West (2001), consistent to those of Biddle, Bowen and regressions, it is noticed that all are largely comparing the reported R2s of the four pooled (2) is not statistically significant. Secondly, significant at 0.01, 0.02 level, while regression content tests. Regressions (1) to (4) are the four regressions in the relative information Firstly, there is a significant difference between and the individual year cross-sectional sample was estimated using both the pooled cross-sectional and intertemporal (all years) sample Chen and Dodd (2001) methodology, the model Following the Easton and Harris (1991) and on the left and the lowest is shown on the right. are provided in Table 1. The higher R2 is shown ROI, ROE and EVA. R2s from these regressions (to 4), one for each performance measure, EPS, comparing R2s from four separate regressions (1 Relative information content is assessed by

2. Empirical Regression Results:

Model. Cost of Equity is calculated by using CAPM

Debt + Minority Interest. Market Value of Company = CMVE + Total

Outstanding. CMVE = Company's Share Price X Total Shares

X { (CMVE \ Total Debt + CMVE) }]. Where, Debt + CMVE { X (1 - Tax) + [Cost of Equity WACC = Cost of Debt X { Total Debt \ (Total

Where, Equity. Term Debt + Minority Interest + Shareholders Invested Capital = Short Term Debt + Long

research suggest that for the Jordanian capital market, the new information provided by the stock returns better than RI (R² = 2.0 per cent) and EVA (R² = 2.3 per cent). The results of this Income-OI with an R² = 6.2 per cent explains the Chen and Dodd (2001) reported that Operating per cent) and EVA (R² = 14.3 per cent), while results: EBEI (R² = 23.6 per cent), RI (R² = 19.2

intertemporal (all years) sample reported for the pooled cross-sectional and sample, results are largely consistent with those and using the individual year cross-sectional separately each of the four regressions (1 to 4) least from a stock return perspective. Examining EVA measure is less value relevant than EPS, as

Table (1): Regression Analysis: EVA and Value-Based Management (2004-2009)

Dependent Variable : STOCK PRICE					
Total years	Index	ROI	ROE	EPS	EVA
2004-2009	R ²	.004	.000	.014	.004
	SIG	.043**	.882	.000***	.01**
	F-test	3.781	.002	8.437	4.246

Significant at p > 0.10 * Significant at p > 0.05 *** Significant at p > 0.01**

2.2. Incremental information content approach

Taken as an indicator of severe multicollinearity, and Kunter (1982) a VIF in excess of 10 is often factor (VIF). According to Neter, Wasserman multicollinearity using the variance inflation was made. All regression models were tested for of a linear relationship between these variables three different equations (2 to 7). An assumption ROE) is combined pair wise with EVA forming traditional performance measure (EPS, ROI and To test the incremental information power, each

explains power to the initial ones. coefficient or regressions with similar either produced regressions with insignificant assumptions. There was an attempt to correct reveal no serious violations of the regressions, Examination of residual plot and normality plot VIF from our regressions are mostly less than 2. that multicollinearity does not exist. The reported is between 2 and 10. A VIF lower than 2 indicate while mild multicollinearity exists when the VIF

Table (2): Incremental \ One Traditional Measure + One Value-Based Measure (EVA@) EVA and Value-Based Management (2004-2009)

Equation (2) : Returns = 10 + a1 EPS/Pt-1 + a2 VEPS/Pt-1 + a3 EVA/Pt-1 + a4 VEVA/Pt-1 + a5			
Year	Index	EPS-ΔEPS	EVA-ΔEVA
2004-2009	F	20.862	20.862
	R ²	.083	.083
	VIF	1.721-1.104	1.621-1.116
	SIG	.003***-.022**	.001***-.486
	T-test	8.122-3.124	-8.221-.302
	Beta Coefficient	.121-.012	-.127-.001

Significant at p > 0.10 * Significant at p > 0.05 *** Significant at p > 0.01**

Table (3): Incremental Measure + One Traditional Measure + One Value-Based Measure (EVA®) EVA and Value-Based Management (2004-2009)

Equation (6) : Returns = n0 + p1 ROI + p2 ΔROI + q1 EVA _{VP-1} + q2 ΔEVA _{VP-1} + n1			
Year	Index	ROI-ΔROI	EVA-ΔEVA
2004-2009	F	0.231	0.231
	R ²	0.020	0.020
	VIF	1.2041.034	1.308-1.01
	SIG	0.034***-0.032**	0.001***-0.411
	T-test	2.202-3.17	-4.130-2.000
	Beta Coefficient	0.23-0.004	-0.220-0.001

Significant at p > 0.10 * Significant at p > 0.02 *** Significant at p < 0.01 ***

Table (4): Incremental Measure + One Traditional Measure + One Value-Based Measure (EVA®) EVA and Value-Based Management (2004-2009)

Equation (7) : Returns = p0 + c1 ROE + c2 ΔROE + q1 EVA _{VP-1} + q2 ΔEVA _{VP-1} + n7			
Year	Index	ROE-ΔROE	EVA-ΔEVA
2004-2009	F	3.211	3.211
	R ²	0.12	0.12
	VIF	2.012-2.123	2.122-1.021
	SIG	0.871-.202	0.002***-0.419
	T-test	0.47-1.042	-4.082-0.871
	Beta Coefficient	0.001-0.0023	-0.032-0.011

Significant at p > 0.10 * Significant at p > 0.02 *** Significant at p < 0.01 ***

Table 2, 3 and 4 shows the detailed results from the pair wise combinations of one traditional performance measure and the EVA. It is noticed that regressions (2), (6) and (7) are significant at 0.02 level or better. The highest R² (8.3 per cent) is reported in Equation (2), which combines EPS, ΔEPS and EVA, ΔEVA. The contribution of the EPS in the explanatory power of this regression is higher than that of EVA, since the R² of EPS alone is 1.4 per cent (table 1) while that of EVA alone is 0.4 per cent (table 1).

This suggests that the combination of EPS and EVA represents the most satisfactory explanation for stock returns in the Greek stock market. Chen and Dodd (1997; 2001) and Worthington and West (2001) revealed almost similar results for the US and Australian capital markets

respectively. They found that EVA is a useful measure for measuring the financial corporate performance, especially when it is combined with EPS. All other examined models have reported low R²s (lower than 2.1 per cent).

6. Conclusion

As it has illustrated in this paper, EVA can be an important tool that bankers can use to measure and improve the financial performance of their bank. Since EVA takes the interest of the bank's shareholders into consideration, the use of EVA by bank management may lead to different decisions than if management relied solely on other measures.

A concept critical in evaluating the performance of any business is economic value added. In generic terms, value added refers to the

claims of Stewart (1991) and the advocates of results of the present study do not support the markets respectively. On the other hand, the results for the Germany and Australian stock Worthington and West (2001) revealed similar residual income in the US stock market. found that earnings outperform EVA and Wallace (1997) and Chen and Dodd (2001) returns for the US market. Also, Bidde, Bowen for example, found that earnings levels and international markets. Easton and Harris (1991), EVA) in explaining stock returns. These results measures under examination (ROI, ROE and returns and outperform all other performance and earnings changes are associated with stock that in the Amman stock market earnings levels Relative information content approach revealed profit is not above the cost of all resources economists' definition and computation of the equity capital invested in the business – so an profit – including an opportunity cost for the charges for all resources in his computation of revenue stream. In contrast, an economist since all other costs have been deducted from the essence the residual return to that equity capital accounts = measure of income or profit is in capital in the computation of profit, so in fact an accountant does not subtract a cost of equity essentially the cost of equity capital – an economic profit and accounting profit is profit or economic rent. The difference between economists sometimes refer to as economic added (EVA) is a financial measure of what have been taken into account. Economic value resources including both debt and equity capital profit created by a business after the cost of all measures the economic rather than accounting added is a refinement of this concept – it activity or a business venture. Economic value additional or incremental value created by an

EVA financial system that EVA alone is the best performance measure. On the other hand, incremental information content approach provided further interesting results. When EVA is incorporated in an EPS model its explanatory power increases from 1.4 to 8.3 per cent. This suggests that the new information provided by the EVA is of some value relevance in explaining stock returns. The relative low explanatory power of performance measures under examination is, in large, consistent with the reported results of several relevant studies conducted for the US market. Chen and Dodd (1997) found that EVA variables and accounting profit variables could not explain more than 47 per cent of the variation of stock returns. Moreover, a recent study of Chen and Dodd (2001) provided evidence that EPS and EVA could not explain more than 23.49 per cent of stock returns. These results support the claims of many scholars that more determinants should be employed to assess the value of the firm. This evidence suggests that the participants in the Amman stock market should pay additional attention to that relatively new value-based performance measure. This study can be further extended in examining the incremental information content not only of the pair wise combinations but also from combinations incorporating more than one traditional or value-based performance measure. The examination of EVA adopters should also provide interesting results. Another important suggestion for further research is to explore the value relevance of other factors beyond the explaining stock returns. Behavioral finance provides a good ground for this. Moreover, comparative studies within stock markets with similar market characteristics as those of Amman should add value to this kind of research.

economic value-added (EVA) and its components in the Australian context
 - West, T. and Worthington, A. A. (2000). The usefulness of EVA? *Accounting, Accountability and Performance Context*, 7(1), pp. 73-9
 - Tully, S. (1993). The real key to creating wealth. *New*
 Universitas de las Islas Baleares Carretera de Valldemossa
 Bartolomé Deyá Departamento de Economía y Empresa
 - Torrella, T. (2002). What does the market think of EVA?
Accounting, Autumn 2000, Vol. 16 Issue 4, pp. 399
 and the stock market performance of Agrifusiness Firms,
 (2000). The Relationship Between Economic Value Added
 - Turvey, S., Lake, C., L., Duran van, E. and Spating, D.
 of Economics and Business Administration. Helsinki 1997
 shareholder wealth creation. Master's Thesis. Helsinki School
 - Teltaris, T. (1997). On residual income variables and
 - Tab, S. (2003). *MVPs of MVA CFO Magazine*, July 1
 Stewart, G. B. (1994). *EVA: Fact and Fantasy*, Journal of
 Cambridge, Mass.: Ballinger Publishing Company
 Corporate Restructuring and Executive Compensation.
 - Stern, J. M., Stewart, G. B., and Chew, D. H. (1989).
 Senior Managers. New York: Harper Business
 - Stewart, G. B. (1991). *The Quest for Value: A Guide for*
 Proceedings from the 1998 ASEM National Conference, pp
 as an Engineering Management Tool for Manufacturers.
 Activity-Based Costing and Economic Value Added System
 - Roxlocki, N., and Nedy, K. L. (1998). An Integrated
 Paper
 Performance Better under EVA Bonus System? *22RN Working*
 - Richman, S., and Lal, M. (2000). Do Managers
 Tool, Pennsylvania CPA Journal, 71 (3), p. 27
 - Prober, L. M. (2000). *EVA: A Better Financial Reporting*
 HomeWood: Irwin, Inc
 Linear Statistical Models,
 - Neer, L. W., Wasserman and M. H. Kunter (1982). *Applied*
Week, 09/21/98, Vol. 247 Issue 17, p. 63
 - McCleshen, J. S. (1998). *Accounting For Change*, Industry
 Business Administration
 management tool, Helsinki School of Economics and
 - Mäkeläinen, E. (1998). *Economic Value Added as a*
 Value and needs to be measured, *Purchasing*, 08/10/2000,
 - Monczka, R. M. and Morgan, J. P. (2000). *Why economic*
 1982-1994, *Journal of Applied Corporate Finance*, 10(2), pp.

Profits, and CEO Turnover: An Empirical Examination,
 - Lehn, K. and A. K. Makhlis (1997). *EVA, Accounting*
 Today, p18
 - Lewis, J. (2002). *Measuring company assets*, Personnel
 April: 32-37.
 - Lee, C. 1996. *Measuring Wealth*, The CPA Magazine,
 McGraw-Hill, USA
 Systematic Approach to Creating Shareholder Value,
 - Knight, J. (1998). *Value Based Management: Developing A*
Capital Markets Review, Vol 9 No. 1 and 2, 2001, p. 83
 Malaysian Listed Companies: A Preliminary Evidence,
 - Isa, M. and Lo, W. (2001) *Economic Value-Added in the*
Exploratory Variables for Returns, *Journal of Accounting*
 - Easton, P. D. and T. S. Harris (1991). *Earnings as an*
 in stock selection, *Journal of Investing*, p. 42
 - Herzberg, M. M. (1998). *Implementing EBO EVA analysis*
IESE Research Paper, No. 433, January 2002
 Value Added do not Measure Shareholder Value Creation.
 - Fernandez, P. (2001). *EVA, Economic Profit and Cash*
 Performance and Value, *Community Banker*, February 2003,
 - Davidson, S. (2003). *Analysis Tools Help Improve Bank*
 23(9), pp. 192-203.
Securities, Accounting and Business Research,
 and Comprehensive Income in Explaining
 (1993). *On the Usefulness of Operating Income, Net Income*
 - Cheng, C. S. A., J. K. Cheng and V. Gopalakrishnan
Research, *Journal of Managerial Issues*, Spring 2001, p. 62
 Residual Income and EVA: Which Metric is More Value
 - Chen, S. and Dodd, J. L. (2001). *Operating Income,*
 301-336.
Values, *Journal of Accounting and Economics* 24(3), pp.
 Evidence on Associations with Stock Returns and Firm
 - Biddle, G. C., R. M. Bowen and J. S. Wallace (1997).
 - Biddle, G. C., R. M. Bowen and J. S. Wallace (1997).
Economic Value Added, *CPA Journal*, 67(7), p. 46
 - Burkette, G. D. and Hedley, T. P. (1997). *The Truth About*
 management incentive, *Management Accounting*, (October,
 - Booth and Rupert (1997). *Economic value added as a*
Economics, 24 (3), p. 301
 Stock Returns and Firm Values, *Journal of Accounting and*
 Does EVA Beat Earnings? Evidence on Associations with
 - Biddle, G. C., Bowen, R. M. and Wallace, J. S. (1997).
InterWeek, February, 2003
 - Berry, J. (2003). *ROI Guide: Economic Value Added*,
 - pursuit of value, *AMA Management*, Vol. 77 Issue 7, p. 34
 - Armistage, H. M., Wong, E. and Douglas, A. (2001). *The*

