“INCOME” MEASURES THAT ARE UNSUITABLE FOR “CASH-BASED” DECISIONS

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ABSTRACT

During the past decade, the Financial Accounting Standards Board issued several standards that introduced non-cash elements into the computation of corporate income. Such components are contrary to the axiom that net income represents cash flow in the long run. Some income measures may not represent cash flow of the firm, and be un-usable in cash-based decisions: credit repayment, capital expenditures, dividends.

This paper analyzes the relationship of four accrual income measures to four cash flow measures for 304 firms of the S&P 500 between 1988 and 2002. I examine the correlation of these measures and the difference between their aggregates over a 15 year period. EBITDA significantly correlated with one-year lagged cash from operating activity before interest and tax payments (r^2=0.99); EBITDA understated cash from operating activity before interest and taxes by 10% over a 15 year period. When interest and tax expenses are deducted from EBITDA, the resulting “cash earnings” correlated significantly with cash from operating activity (r^2=0.95) lagged one year; cash earnings understated cash from operating activity by 14% over a 15 year period. When depreciation was deducted from “cash earnings” to obtain “operating income,” correla-tion with Free Cash Flow dropped to a not statistically significant level with r^2=0.67. Further, operating income overstated free cash flow by 35%, primarily since deprecia-tion averaged only 67% of cash expenditures on capital. Non-operating charges (including minority interest, equity income, etc.) deflected income measures further from cash flow. Basic income per share (before extraordinary and discontinued items) was not significantly correlated with either Cash from Operating Activity or Free Cash Flow, even when lagged. EPS summed to only 40% of CFO per share over a nine year period. Net income had no significant relationship to any cash flow measure, short run or long-term. As one proceeds from top to bottom of a multi-step computation of income, cash flow increasingly deviates from income. At the bottom line, income overstates residual cash flow by about 30%, cumulatively, over a 15 year period. Valuations based on measures below operating income will significantly overstate the underlying available cash flow. Only short-term measures, EBITDA and cash earnings, are significantly correlated with cash flow and might be usable in cash-based decisions.