

Performance Measures in Earnings-Based Financial Covenants in Debt Contracts

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ABSTRACT

This paper examines how performance measures are defined in major earnings-based financial covenants in loan contracts to shed light on the economic rationales underlying the contractual use of performance measures. I find an earnings-based covenant is typically based on a performance measure close to earnings before interest, tax, amortization, and depreciation expenses (EBITDA). However, my empirical analyses show that EBITDA is less useful in explaining credit risk than earnings before interest and tax expenses (EBIT) and even the bottom-line net income. Thus, measuring credit risk cannot fully explain the choice of accounting performance measures in earnings-based covenants. I conjecture that contracting parties choose an EBITDA-related measure, instead of a measure calculated after depreciation and amortization expenses (e.g., EBIT), to make the performance measure less sensitive to investment activities, which can be controlled through other contractual terms, such as a restriction on capital expenditure, and provide

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Aghion, P., M. Dewatripont, and P. Rey. "On Renegotiation Design." *European Economic Review* 34 (1990): 322–29.

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Aghion, P.; M. Dewatripont; and P. Rey. "Renegotiation Design with Unverifiable Information." *Econometrica* 62 (1994): 257–82.

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Altman, E. I. "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy." *Journal of Finance* 23 (1968): 589–609.

[Web of Science®](#) | [Google Scholar](#)

Ball, R.; R. Bushman; and F. Vasvari. "The Debt-Contracting Value of Accounting Information and Loan Syndicate Structure." *Journal of Accounting Research* 46 (2008): 247–88.

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Ball, R., and L. Shivakumar. "The Role of Accruals in Asymmetrically Timely Gain and Loss Recognition." *Journal of Accounting Research* 44 (2006): 207–41.

[Web of Science®](#) | [Google Scholar](#)

Barth, M.; W. Beaver; and W. Landsman. "Accruals, Cash Flows, and Equity Value." *Review of Accounting Studies* 3 (1999): 205–29.

[Google Scholar](#)

Beatty, A.; S. Liao, and J. Weber. "The Effect of Private Information and Monitoring on the Role of Accounting Quality in Investment Decisions." *Contemporary Accounting Research* 27 (2010a): 17–47.

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Cassar, G.; C. Ittner; and K. Cavalluzzo. "Alternative Information Sources and Information Asymmetry Reduction: Evidence from Small Business Debt." *Journal of Accounting and Economics* 59 (2015): 242–63.

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Chava, S., and M. Roberts. "How Does Financing Impact Investment? The Role of Debt Covenants." *Journal of Finance* 63 (2008): 2085–2121.

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Christensen, H., and V. Nikolaev. "Capital Versus Performance Covenants in Debt Contracts." *Journal of Accounting Research* 50 (2012): 75–116.

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Christensen, H.; V. Nikolaev; and R. Wittenberg-Moerman. "Accounting Information in Financial Contracting: The Incomplete Contract Theory Perspective." *Journal of Accounting Research* 54 (2016): 397–435.

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Dechow, P. "Accounting Earnings and Cash Flows as Measures of Firm Performance: The Role of Accounting Accruals." *Journal of Accounting and Economics* 18 (1994): 3–42.

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Demerjian, P. "Information, Monitoring, and Manipulation: The Economic Role of Covenant Measurement." Working paper, Emory University, 2009.

[Google Scholar](#)

Demerjian, P. "Accounting Standards and Debt Covenants: Has the "Balance Sheet Approach" Led to a Decline in the Use of Balance Sheet Covenants?" *Journal of Accounting and Economics* 52 (2011): 101–258.

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Dichev, I., and D. Skinner. "Large-Sample Evidence on the Debt Covenant Hypothesis." *Journal of Accounting Research* 40 (2002): 1091–1123.

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Dyreng, S.; R. Vashishtha; and J. Weber. "Direct Evidence on the Informational Properties of Earnings in Loan Contracts." Working paper, MIT, 2016.

[Google Scholar](#)

Easton, P.; S. Monahan; and F. Vasvari. "Initial Evidence on the Role of Accounting Earnings in the Bond Market." *Journal of Accounting Research* 47 (2009): 721–66.

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El-Gazzar, S., and V. Pastena. "Negotiated Accounting Rules in Private Financial Contracts." *Journal of Accounting and Economics* 12 (1990): 381–96.

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Garleanu, N., and J. Zwiebel. "Design and Renegotiation of Debt Covenants." *Review of Financial Studies* 22 (2009): 749–81.

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Gigler, F.; C. Kanodia; H. Sapiro; and R. Venugopalan. "Accounting Conservatism and the Efficiency of Debt Contracts." *Journal of Accounting Research* 47 (2009): 767–97.

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Grossman, S., and O. Hart. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94 (1986): 691–719.

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Hillegeist, S.; E. Keating; D. Cram; and K. Lundstedt. "Assessing the Probability of Bankruptcy." *Review of Accounting Studies* 9 (2004): 5–34.

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Huang, Y.; N. Li; and J. Ng. "Relative Compensation Usefulness of Accounting Performance Measures." Working paper, University of Texas at Dallas, 2015.

[Google Scholar](#)

Huberman, G.; and C. Kahn. "Limited Contract Enforcement and Strategic Renegotiation." *American Economic Review* 78 (1988): 471–84.

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Huberman, G.; and C. Kahn. "Default, Foreclosure, and Strategic Renegotiation." *Law and Contemporary Problems* 52 (1989): 49–61.

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Jensen, M., and W. Meckling. "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure." *Journal of Financial Economics* 3 (1976): 305–60.

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Leftwich, R. "Accounting Information in Private Markets: Evidence from Private Lending Agreements." *Accounting Review* 58 (1983): 23–42.

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Leuz, C. "The Role of Accrual Accounting in Restricting Dividends to Shareholders." *European Accounting Review* 7 (1998): 579–604.

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Moody's, 2000. "Putting EBITDA in Perspective: Ten Critical Failings of EBITDA as the Principal Determinant of Cash Flow." Special comment, Moody's Investors Service.

[Google Scholar](#)

Myers, S. C. "Determinants of Corporate Borrowing." *Journal of Financial Economics* 5 (1977): 147-76.

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Nini, G.; D. Smith; and A. Sufi. "Creditor Control Rights and Firm Investment Policy." *Journal of Financial Economics* 92 (2009): 400-20.

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Ohlson, J. A. "Financial Ratios and the Probabilistic Prediction of Bankruptcy." *Journal of Accounting Research* 18 (1980): 109-31.

[Web of Science®](#) | [Google Scholar](#)

Ozel, B. "Aggregate Earnings and Loan Values." Working paper, UCLA, 2014.

[Google Scholar](#)

Roberts, M., and A. Sufi. "Control Rights and Capital Structure: An Empirical Investigation." *Journal of Finance* 64 (2009): 1657-95.

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Smith, C., and J. Warner. "On Financial Contracting: An Analysis of Bond Covenants." *Journal of Financial Economics* 7 (1979): 117-61.

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Watts, R. L. "Conservatism in Accounting, Part II: Evidence and Research Opportunities." *Accounting Horizons* 17 (2003b): 287-301.

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Wight, R.; W. Cooke; and R. Gray. " Understanding the Credit Agreement," in *Loan Syndications & Trading*, edited by A. Taylor and A. Sansone. New York: McGraw-Hill, 2007: 209-392.

[Google Scholar](#) 

Wight, R.; W. Cooke; and R. Gray. *The LSTA's Complete Credit Agreement Guide*. New York: McGraw-Hill, 2009.

[Google Scholar](#) 

Wooldridge, J. *Econometric Analysis of Cross Section and Panel Data*, Second edition. Cambridge, MA: MIT Press, 2010.

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