Journal of Accounting Research / Volume 43, Issue 2 / p. 205-243

Earnings Management through Transaction Structuring: Contingent Convertible Debt and Diluted Earnings per Share

CAROL MARQUARDT, CHRISTINE WIEDMAN

First published: 24 February 2005
https://doi.org/10.1111/j.1475-679x.2005.00168.x

We thank Ravi Arcot, CEO of Kynex Inc., for providing convertible bond data, and Ned Blanchard of the Office of the Associate Chief Counsel (Financial Institutions and Products) of the Internal Revenue Service for discussions regarding the tax treatment of contingent payment debt instruments. We also thank John Graham for providing data on marginal tax rates. We appreciate comments and suggestions by Daniel Bens, Philip Berger (editor), Sanjeev Bhojraj, Peggy Bishop, Mary Ellen Carter, Ted Christensen, Tom Dyckman, Fabrizio Ferri, Ole-Kristian Hope, Mark Huson, Charles Lee, Zach Liu, Kin Lo, Suzanne Morsfield, Mark Nelson, John Phillips, Christine Tan, Karen Teitel, Steve Umlauf, Teri Yohn, an anonymous referee, and workshop participants at the University of Connecticut, Cornell University, the Fourth Annual University of Utah Winter Conference, the 2004 *Journal of Accounting Research* Conference, and the 2004 American Accounting Association Annual Meeting.

ABSTRACT

In this article we examine whether firms structure their convertible bond transactions to manage diluted earnings per share (EPS). We find that the likelihood of firms issuing contingent convertible bonds (COCOs), which are often excluded from diluted EPS calculations under Statement of Financial Accounting Standard (SFAS) 128, is significantly associated with the reduction that would occur in diluted EPS if the bonds were traditionally structured. We also document that firms' use of EPS-based compensation contracts significantly affects the likelihood of COCO issuance and find weak evidence that reputation costs, measured using earnings restatement data, play a role in the structuring decision. These results are robust to controlling for alternative motivations for issuing COCOs, including tax and dilution arguments. In addition, an examination of announcement returns reveals that investors view the net benefits and costs of COCOs as offsetting one another. Our results contribute to the literature on earnings management, diluted EPS, financial reporting costs, and financial innovation.

REFERENCES

Asquith, P. Convertible Bonds Are Not Called Late. *Journal of Finance* **50** (1995): 1275–89.

Web of Science® | Google Scholar

Asquith, P., and D. Mullins. Convertible Debt: Corporate Call Policy and Voluntary Conversion. *Journal of Finance* **46** (1991): 1273–89.

Web of Science® | Google Scholar

Ayers, B.; C. Lefanowicz; AND J. Robinson. Do Firms Purchase the Pooling Method? *Review of Accounting Studies* **7** (2002): 5–32.DOI: 10.1023/A:1017941313169

Google Scholar

Bayless, M., and S. Chaplinsky. Is There a Window of Opportunity for Seasoned Equity Issuance? *Journal of Finance* **51** (1996): 253–78.

Web of Science® | Google Scholar

Bens, D.; V. Nagar; D. Skinner; AND M. Wong. Employee Stock Options, EPS Dilution, and Stock Repurchases. *Journal of Accounting and Economics* **36** (2003): 51–90.

Web of Science® | Google Scholar

Billingsley, R., and D. Smith. Why Do Firms Issue Convertible Debt? *Financial Management* **25** (1996): 93–99.

Web of Science® | Google Scholar

Bloomfield, R., and R. Libby. Market Reactions to Differentially Available Information in the Laboratory. *Journal of Accounting Research* **34** (1996): 183–207.

Web of Science® | Google Scholar

Bushee, B. The Influence of Institutional Investors on Myopic R&D Investment Behavior. *The Accounting Review* **73** (1998): 305–33.

Web of Science® | Google Scholar

Carter, M., and L. Lynch. The Consequences of the FASB's 1998 Proposal on Accounting for Stock Option Repricing. *Journal of Accounting and Economics* **35** (2003): 51–72.

Web of Science® | Google Scholar

Comiskey, E., and C. Mulford. Investment Decisions and the Equity Accounting Standards. *The Accounting Review* **61** (1986): 519–25.

Web of Science® | Google Scholar

Core, J.; W. Guay; AND S. P. Kothari. The Economic Dilution of Employee Stock Options: Diluted EPS for Valuation and Financial Reporting. *The Accounting Review* **77** (2002): 627–52.

Web of Science® | Google Scholar

Coxe, T. Convertible Structures: Evolution Continues,"in *Handbook of Hybrid Instruments*, edited by I. Nelken. New York : Wiley, 2000: 15–60.

Web of Science® | Google Scholar

Davis-Friday, P.; L. Folami; C. Liu; AND H. Mittelstaedt. The Value Relevance of Financial Statement Recognition vs. Disclosure: Evidence from SFAS No. 106. *The Accounting Review* **74** (1999): 403–24.

Web of Science® | Google Scholar

Desai, H.; C. Hogan; AND M. Wilkins. The Reputational Penalty for Aggressive Accounting: Earnings Restatements and Management Turnover."Working paper, Southern Methodist University , 2004.

Google Scholar

Dietrich, J.; S. Kachelmeier; D. Kleinmuntz; AND T. Linsmeier. Market Efficiency, Bounded Rationality, and Supplemental Business Reporting Disclosures. *Journal of Accounting Research* **39** (2001): 243–68.DOI: 10.1111/1475-679X.00011

Web of Science® | Google Scholar

Dunn, K., and K. Eades. Voluntary Conversion of Convertible Securities and the Optimal Call Strategy. *Journal of Financial Economics* **23** (1989): 273–301.DOI: 10.1016/0304-405X(89)90059-7

Web of Science® | Google Scholar

Dye, R. Classifications Manipulation and Nash Accounting Standards. *Journal of Accounting Research* **40** (2002): 1125–62.DOI: 10.1111/1475-679X.00084

Web of Science® | Google Scholar

Eckbo, B. Valuation Effects of Corporate Debt Offerings. *Journal of Financial Economics* **15** (1986): 119–51.DOI: 10.1016/0304-405X(86)90052-8

Web of Science® | Google Scholar

Engel, E.; M. Erickson; AND E. Maydew. Debt-Equity Hybrid Securities. *Journal of Accounting Research* **37** (1999): 249–74.

Web of Science® | Google Scholar

Finnerty, J. An Overview of Corporate Securities Innovation. *Journal of Applied Corporate Finance* **4** (1992): 23–39.

Google Scholar

Gompers, P.; A. Metrick; AND J. Ishii. Corporate Governance and Equity Prices. *Quarterly Journal of Economics* **118** (2003): 107–55.DOI: 10.1162/00335530360535162

Web of Science® | Google Scholar

Graham, J. Debt and the Marginal Tax Rate. *Journal of Financial Economics* **41** (1996a): 41–73.DOI: 10.1016/0304-405X(95)00857-B

Web of Science® Google Scholar

Graham, J. Proxies for the Corporate Marginal Tax Rate. *Journal of Financial Economics* **42** (1996b): 187–221.DOI: 10.1016/0304-405X(96)00879-3

Web of Science® Google Scholar

Graham, J.; C. Harvey; AND S. Rajgopal. The Economic Implications of Corporate Financial Reporting."Working paper, Duke University , 2003.

Google Scholar

Greene, W. *Econometric Analysis*. New York : MacMillan, 2003.

Google Scholar

Healy, P.; S. Kang; AND K. Palepu. The Effect of Accounting Procedure Changes on CEOs' Cash Salary and Bonus Compensation. *Journal of Accounting and Economics* **9** (1987): 7–34.DOI: 10.1016/0165-4101(87)90015-2

Web of Science® Google Scholar

Hribar, P., and N. Jenkins. The Effect of Accounting Restatements on Earnings Revisions and the Estimated Cost of Capital. *Review of Accounting Studies* **9** (2004): 337–56.DOI: 10.1023/B:RAST.0000028194.11371.42

Web of Science® Google Scholar

Hribar, P.; N. Jenkins; AND W. B. Johnson. Stock Repurchases as an Earnings Management Device."Working paper, Cornell University , 2004.

Google Scholar

Huson, M.; T. Scott; AND H. Wier. Earnings Dilution and the Explanatory Power of Earnings for Returns. *The Accounting Review* **76** (2001): 589–612.

Web of Science® Google Scholar

Imhoff, E., and J. Thomas. Economic Consequences of Accounting Standards: The Lease Disclosure Rule Change. *Journal of Accounting and Economics* **10** (1988): 277–310.DOI: 10.1016/0165-4101(88)90006-7

Web of Science® Google Scholar

Ingersoll, J. A Contingent-Claims Valuation of Convertible Securities. *Journal of Financial Economics* **5** (1977a): 289–322.DOI: 10.1016/0304-405X(77)90004-6

Web of Science® Google Scholar

Ingersoll, J. An Examination of Corporate Call Policies on Convertible Securities. *Journal of Finance* **53** (1977b): 463–78.

Web of Science® | Google Scholar

Jennings, R.; M. LeClere; AND R. Thompson. Evidence on the Usefulness of Alternative Earnings Per Share Measures. *Financial Analyst Journal* (NovDec 1997): 24–33.

Google Scholar

Judge, G. G.; W. E. Griffiths; R. Carter Hill; H. Luetkepohl; AND T. Lee. *Regression Diagnostics*. New York : Wiley, 1985.

Google Scholar

Lewis, C.; R. Rogalski; AND J. Seward. Industry Conditions, Growth Opportunities, and Market Reactions to Convertible Debt Financing Decisions. *Journal of Banking and Finance* **27** (2003): 153–81.DOI: 10.1016/S0378-4266(01)00212-6

Web of Science® | Google Scholar

Matsunaga, S. The Effect of Financial Reporting Costs on the Use of Employee Stock Options. *The Accounting Review* **70** (1995): 1–26.

Web of Science® | Google Scholar

Matsunaga, S., and C. Park. The Effect of Missing a Quarterly Earnings Benchmark on the CEO's Annual Bonus. *The Accounting Review* **76** (2001): 313–32.

Web of Science® | Google Scholar

Matsunaga, S.; T. Shevlin; AND D. Shores. Disqualifying Dispositions of Incentive Stock Options: Tax Benefits Versus Financial Reporting Costs. *Journal of Accounting Research* (Supplement 1992): 37–68.

Web of Science® | Google Scholar

Mikkelson, W., and M. Partch. Valuation Effects of Security Offerings and the Issuance Process. *Journal of Financial Economics* **15** (1986): 31–60.DOI: 10.1016/0304-405X(86)90049-8

Web of Science® | Google Scholar

Murphy, K. Executive Compensation,"in *Handbook of Labor Economics* Vol. **3**, edited by O. Ashenfelter and D. Card. New York North Holland, 1999: 2485–2563.

Google Scholar

Nelson, M.; J. Elliott; AND R. Tarpley. Evidence from Auditors about Managers' and Auditors' Earnings Management Decisions. *The Accounting Review* **77** (2002): 175–202.

Web of Science® Google Scholar

Ohlson, J., and B. Juettner-Nauroth. Expected EPS and EPS Growth as Determinants of Value."Working paper, Arizona State University , 2003.

Google Scholar

Palmrose, Z.; V. Richardson; AND S. Scholz. Determinants of Market Reactions to Restatement Announcements. *Journal of Accounting & Economics* **37** (2004): 59–89.DOI: 10.1016/j.jacceco.2003.06.003

Web of Science® Google Scholar

Plesko, G. An Evaluation of Alternative Measures of Corporate Tax Rates. *Journal of Accounting and Economics* **35** (2003): 201–26.DOI: 10.1016/S0165-4101(03)00019-3

Web of Science® Google Scholar

Sengupta, P. Corporate Disclosure Quality and the Cost of Debt. *The Accounting Review* **73** (1998): 459–74.

Web of Science® Google Scholar

Srinivasan, S. Consequences of Financial Reporting Failure for Outside Directors: Evidence from Accounting Restatements."Working paper, University of Chicago , 2004.

Google Scholar

Stein, J. Convertible Bonds as Back Door Equity Financing. *Journal of Financial Economics* **32** (1992): 3–40.DOI: 10.1016/0304-405X(92)90022-P

Web of Science® Google Scholar

Tufano, P. Financial Innovation and First-Mover Advantages. *Journal of Financial Economics* **25** (1989): 213–40.DOI: 10.1016/0304-405X(89)90082-2

Web of Science® Google Scholar

Wallace, W. Adding Value Through Accounting Signals. *California Management Review* **46** (2004): 120–37.

Web of Science® Google Scholar

Watts, R., and J. Zimmerman. *Positive Accounting Theory*. Englewood Cliffs , NJ : Prentice Hall, 1986.

Google Scholar