

What Is the Cost of Financial Flexibility? Theory and Evidence for Make-Whole Call Provisions

Eric Powers, Sergey Tsyplakov

First published: 25 August 2008

<https://doi.org/10.1111/j.1755-053X.2008.00022.x>

We thank Brent Ambrose, David P. Brown, Shingo Goto, Brad Jordan, Ken Kavajecz, Ajay Khorana, Steve Mann, Sattar Mansi, Ted Moore, Greg Niehaus, Mark Ready, Ellen Roueche, Martin Ruckes, Stathis Tompaidis, Toni Whited, an anonymous referee, and seminar participants at Georgia Institute of Technology, Notre Dame University, the University of South Carolina, the University of Wisconsin at Madison, the 2004 Financial Management Association annual meeting, and the 2005 Southern Finance Association annual meeting for helpful comments.



PDF

Abstract

Firms commonly incorporate make-whole call provisions in their newly issued debt, presumably to improve their ability to retire debt early if circumstances require. In return for increased financial flexibility, firms must compensate bondholders with additional (incremental) yield. To estimate theoretical incremental yields, we use and calibrate a structural model for a large sample of callable and noncallable US corporate bonds issued between 1995 and 2004. In a frictionless model where calls occur only when they are in-the-money, theoretical incremental yields average approximately 2 basis points (bp). In an extended model that incorporates taxes, transactions costs, and randomly occurring exogenous events requiring early bond retirement, incremental yields average approximately 5 bp. Empirical analysis, however, indicates that observed incremental yields are significantly greater than model-generated values, averaging between 13 and 24 bp. In the later years of our sample period, however, observed incremental yields begin to converge to model-generated values.

References



This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)



Manage Preferences

Accept All

Reject Non-Essential

Campbell, J.Y. and G.B. Taksler, 2003, "Equity Volatility and Corporate Bond Yields," *Journal of Finance* 58, 2321–2350.

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

Chaplinsky, S. and L. Ramchand, 2004, "The Impact of SEC Rule 144A On Corporate Debt Issuance by International Firms," *Journal of Business* 77, 1073–1097.

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

Chen, L., D.A. Lesmond, and J. Wei, 2007, "Corporate Yield Spreads and Bond Liquidity," *Journal of Finance* 62, 119–149.

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

Cox, J., J. Ingersoll, and S. Ross, 1985, "An Intertemporal General Equilibrium Model of Asset Prices," *Econometrica* 53, 385–407.

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

Datta, S., M. Iskandar-Datta, and A. Patel, 1997, "The Pricing of Initial Public Offers of Corporate Straight Debt," *Journal of Finance* 52, 379–396.

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

Duffee, G.R., 1998, "The Relation between Treasury Yields and Corporate Bond Yield Spreads," *Journal of Finance* 53, 2225–2241.

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

Elton, E.J., M.J. Gruber, D. Agrawal, and C. Mann, 2001, "Explaining the Rate Spread on Corporate Bonds," *Journal of Finance* 56, 247–277.

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

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

[Web of Science®](#) 

[Google Scholar](#) 

Fons, J.S., 1994, "Using Default Rates to Model the Term Structure of Credit Risk," *Financial Analysts Journal* **50**, 25-32.

[Google Scholar](#) 

Graham, J.R., 2000, "How Big Are the Tax Benefits of Debt?" *Journal of Finance* **55**, 1901-1941.

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

Graham, J.R. and C. Harvey, 2001, "The Theory and Practice of Corporate Finance: Evidence from the Field," *Journal of Financial Economics* **60**, 187-243.

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

Güntay, L., N. Prabhala, and H. Unal, 2004, "Callable Bonds, Interest-Rate Risk, and the Supply Side of Hedging," University of Maryland Working Paper.

[Google Scholar](#) 

Jacoby, G. and D. Stangeland, 2004, "The Make-Whole, Doomsday, and Canada Call Provisions," University of Manitoba Working Paper.


[Google Scholar](#) 

Jones, E.P., S.P. Mason, and E. Rosenfeld, 1984, "Contingent Claims Analysis of Corporate Capital Structures: An Empirical Analysis," *Journal of Finance* **39**, 611-625.

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

Kahan, M. and B. Tuckman, 1993, "Private vs. Public Lending: Evidence from Covenants," University of California, Los Angeles, Working Paper.

[Google Scholar](#) 

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#) 

[Manage Preferences](#)

[Accept All](#)

[Reject Non-Essential](#)

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

King, T.D. and D.C. Mauer, 2000, "Corporate Call Policy for Nonconvertible Bonds," *Journal of Business* **73**, 403-444.

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

Kwan, S.H. and W.T. Carleton, 2004, "Financial Contracting and the Choice between Private Placements and Publicly Offered Bonds," Federal Reserve Bank of San Francisco Working Paper No. 2004-20.

[Google Scholar](#)

Litterman, R. and T. Iben, 1991, "Corporate Bond Valuation and the Term Structure of Credit Spreads," *Journal of Portfolio Management*, Spring 52-64.

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

Livingston, M. and R.E. Miller, 2000, "Investment Bank Reputation and the Underwriting of Nonconvertible Debt," *Financial Management* **29**, 21-34.

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

Livingston, M. and L. Zhou, 2002, "The Impact of Rule 144a Debt Offerings upon Bond Yields and Underwriter Fees," *Financial Management* **31**, 5-27.

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

Longstaff, F.A. and B.A. Tuckman, 1994, "Call Nonconvertible Debt and the Problem of Related Wealth Transfer Effects," *Financial Management* **23**, 21-27.

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

Lyden, S. and D. Saraniti, 2000, "An Examination of the Classical Theory of Corporate Security Valuation," Bourne Lyden Capital Partners Working Paper.

[Google Scholar](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

[Google Scholar](#) 

Mann, S.V. and E.A. Powers, 2003b, "Indexing a Bond's Call Price: An Analysis of Make-Whole Call Provisions," *Journal of Corporate Finance* 9, 535-554.

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

Mann, S.V. and E.A. Powers, 2007, "Determinants of Bond Tender Offer Premiums and Tendering Rates," *Journal of Banking and Finance* 31, 547-566.

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

Mauer, D.C., 1993, "Optimal Bond Call Policies under Transactions Costs," *Journal of Financial Research* 16, 23-27.

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

Merton, R.C., 1974, "On the Pricing of Corporate Debt: The Risk Structure of Interest Rates," *Journal of Finance* 29, 449-470.

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

Narayanan, M.P. and S.P. Lim, 1989, "On the Call Provision in Corporate Zero-Coupon Bonds," *Journal of Financial and Quantitative Analysis* 24, 91-103.


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

Powers, E.A. and S. Sarkar, 2006, "Setting Optimal Make-Whole Call Premiums," University of South Carolina Working Paper.

[Google Scholar](#) 

Schultz, P., 2001, "Corporate Bond Trading Costs: A Peek behind the Curtain," *Journal of Finance* 56, 677-698.

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

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#) 

[Manage Preferences](#)

[Accept All](#)

[Reject Non-Essential](#)

Citing Literature



[Download PDF](#)

ABOUT WILEY ONLINE LIBRARY

[Privacy Policy](#)

[Terms of Use](#)

[About Cookies](#)

[Manage Cookies](#)

[Accessibility](#)

[Wiley Research DE&I Statement and Publishing Policies](#)

HELP & SUPPORT

[Contact Us](#)

[Training and Support](#)

[DMCA & Reporting Piracy](#)

[Sitemap](#)

OPPORTUNITIES

[Subscription Agents](#)

[Advertisers & Corporate Partners](#)

CONNECT WITH WILEY

[The Wiley Network](#)

[Wiley Press Room](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)



[Manage Preferences](#)

[Accept All](#)

[Reject Non-Essential](#)