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Convertible Preferred Stock Valuation: Tests of Alternative Models

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Abstract

We undertake a comprehensive test of several contingent claim valuation models adapted to callable, convertible preferred stocks employing a sample of 24 issues and over 27,000 daily price observations. To our knowledge, no large-scale tests of these models have been published. The most complete model tested is an extension of the 1970s developments of Ingersoll and of Brennan and Schwartz, allowing for realistic contract features including delayed callability and nonconstant call prices. The mean and the mean absolute pricing errors are approximately -0.18 percent and 5.4 percent, respectively, and this model fits the data substantially better than the simpler alternatives that ignore such features. Thus, the added computational complexity required for the most complete model examined is evidently merited. Moreover, to the extent that the most complete

model accurately mirrors reality, the evidence suggests that investors rationally account for many of the complex features imbedded in typical contracts.

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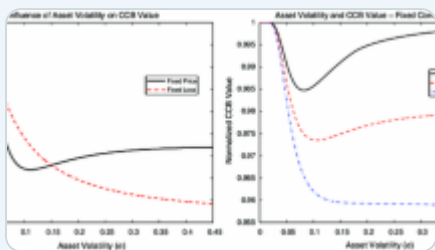
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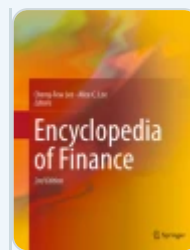
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References

Asquith, P., "Convertible Debt: A Dynamic Test of Call Policy." Unpublished

manuscript, Massachusetts Institute of Technology, 1992.

Brennan, M. and E. Schwartz, "Convertible Bonds: Valuation and Optimal Strategies for Call and Conversion." *Journal of Finance* 32, 1699-1715, (1977).

[Google Scholar](#)

Brennan, M. and E. Schwartz, "Analyzing Convertible Bonds." *Journal of Financial and Quantitative Analysis* 15, 907-929, (1980).

[Google Scholar](#)

Brigham, E., "An Analysis of Convertible Debentures." *Journal of Finance* 21, 35-54, (1966).

[Google Scholar](#)

Coleman, T., L. Fisher, and R. Ibbotson, *U.S. Treasury Yield Curves 1926-1988*. New York: Moody's Investors Service, Inc., 1989.

[Google Scholar](#)

Eades, K., P. Hess, and E. Kim, "On Interpreting Security Returns During the Ex-dividend Period." *Journal of Financial Economics* 13, 3-34, (1984).

[Google Scholar](#)

Emanuel, D., "A Theoretical Model for Valuing Preferred Stock." *Journal of Finance* 38, 1133-1155, (1983).

[Google Scholar](#)

Ibbotson Associates, *Stocks, Bonds, Bills and Inflation*. Chicago: Ibbotson Associates, Inc., 1994.

[Google Scholar](#)

Ingersoll, J., "A Contingent-Claims Valuation of Convertible Securities." *Journal of Financial Economics* 4, 289-321, (1977a).

[Google Scholar](#)

Ingersoll, J., "An Examination of Corporate Call Policies on Convertible Securities." *Journal of Finance* 32, 463-478, (1977b).

[Google Scholar](#)

Jaffee, D. and A. Shleifer, "Costs of Financial Distress, Delayed Calls of Convertible Bonds, and the Role of Investment Banks." *Journal of Business* 63, S107-S123, (1990).

[Google Scholar](#)

Jennings, E., "An Estimate of Convertible Bond Premiums." *Journal of Financial and Quantitative Analysis* 9, 33-56, (1974).

[Google Scholar](#)

Lee, P., *Bayesian Statistics: An Introduction*, New York: Halsted Press, imprint of John Wiley & Sons, Inc., 1989.

[Google Scholar](#)

Lindley, D., "A Statistical Paradox." *Biometrika* 44, 187-192, (1957).

[Google Scholar](#)

Longstaff, F. and E. Schwartz, "A Simple Approach to Valuing Risky Fixed and Floating Rate Debt." *Journal of Finance* 50, 789-819, (1995).

[Google Scholar](#)

Longstaff, F. and B. Tuckman, "Optimal Call Policy for Corporate Bonds."
Unpublished manuscript, New York University, 1993.

McCracken, D. and W. Dorn, *Numerical Methods and Fortran Programming*. John Wiley & Sons, Inc., 1964.

Marr, W. and R. Thompson, "The Pricing of New Convertible Bond Issues."
Financial Management 13, 31-37 (1984).

[Google Scholar](#)

Marr, W. and R. Thompson, "Primary Market Pricing of Convertible Preferred Stock." *Quarterly Review of Economics and Business* 25, 73-80, (1985).

[Google Scholar](#)

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

[Google Scholar](#)

Ramanlal, P., "A Simple Algorithm for the Valuation of Preferred Stock." *Financial Practice and Education* 7, 11-19, (1997).

[Google Scholar](#)

Weil, R., J. Segall, and D. Green, "Premiums on Convertible Bonds." *Journal of Finance* 23, 445-463, (1968).

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