Does the choice between fixed price and make whole call provisions reflect differential agency costs?☆

Michael J. Alderson a,⁎,1, Fang Lin b, Duane R. Stock c

a Saint Louis University, USA
b Pittsburg State University, USA
c University of Oklahoma, USA

ARTICLE INFO

Article history:
Received 1 May 2017
Received in revised form 1 August 2017
Accepted 20 August 2017
Available online 23 August 2017

JEL classifications:
G12
G32

Keywords:
Fixed price call provision
Make whole call provision
Debt agency costs
Restrictive covenants

ABSTRACT

Bonds with either fixed price or make whole call provisions allow for the efficient recontracting of claims, but they differ in terms of their ability to mitigate debt agency costs. Controlling for the influence of bondholder-shareholder conflicts on both the level of covenant protection and selection of a particular type of call provision, we show that firms select call provisions with greater sensitivity to changes in the option-free value of the bond when agency problems are more severe. Our findings are consistent with the Barnea, Haugen and Senbet (1980) theorem that firms select fixed price callable debt to mitigate bondholder-shareholder conflicts.

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1. Introduction

Finance scholars have sought for decades to explain why firms issue callable bonds. The earliest explanations recognized the ability of a call provision to generate profitable refunding opportunities and facilitate the elimination of covenant provisions. But the model with the deepest relation to the theory of the firm is the one which holds that firms issue fixed price callable debt in response to prospective bondholder-shareholder conflicts. Those conflicts create the potential for underinvestment, adverse selection and risk-shifting. Barnea et al. (1980) (hereafter BHS) demonstrate that, similar to short-term borrowing, fixed price callable debt serves to mitigate those agency costs. Their theorem establishes that debt agency costs are reduced by callable debt because it limits the extent of any wealth transfers between the bondholders and the stockholders that might impair the enterprise value.

In spite of numerous empirical tests, evidence supporting the BHS theorem is inconclusive. Efforts to fill that void are even more compelling in view of the recent popularity of make whole debt in the capital markets. Similar to debt with a fixed price call provision, make whole debt allows for the recontracting of claims on an efficient basis, meaning free of the uncertainty

☆ We thank Naresh Bansal, Brian Betker, Joseph T. Halford, Hailong Qian, David Rapach, and Valeriy Siblikov for a series of very helpful exchanges that led to improvements in the quality of the manuscript. Comments from the participants of the seminar series at Saint Louis University are gratefully acknowledged. All errors remain our own.

⁎ Corresponding author.
E-mail addresses: alderson@slu.edu (M.J. Alderson), flin@pittstate.edu (F. Lin), dstock@ou.edu (D.R. Stock).
1 Postal address: Davis-Shaughnessy Hall, 300. 3674 Lindell Blvd. St. Louis, MO 63108

http://dx.doi.org/10.1016/j.jcorpfin.2017.08.007
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that would accompany a tender offer for an otherwise noncallable issue (Mann and Powers, 2003). In contrast to fixed price callable bonds however, make whole bonds are largely incapable of mitigating bondholder-shareholder conflicts. That distinction provides a unique opportunity to examine the extent to which prospective bondholder-shareholder conflicts motivate the choice of a fixed price call provision over a make whole call.

Studies on callable debt have typically examined the factors that influence the decision to include a fixed price call provision or none at all. That is because prior to 1995, public issues including make whole call provisions had yet to be offered. Here we employ a different approach made possible by the large volume of make whole debt issuance during the past two decades: we confine the sample to callable debt only, and examine the factors that influence the choice between a fixed price and make whole call provision.

Studying why a firm selects a fixed price instead of a make whole call provision provides deeper insight into the function of call features because the choice determines the sensitivity of the value of the embedded call to managerial actions that affect the value of the claim. When compared to make whole call options, the value of an embedded fixed price call is much more sensitive to decisions that affect the volatility of operating earnings, the value of corporate-level investment, the amount of free cash and the leverage ratio (Mann and Powers, 2003 and Kwan and Carleton, 2010). It is those valuation sensitivities that allow the fixed price call provision to mitigate debt agency costs.2

Observing the choice between fixed price and make whole call provisions thus allows us to conduct a cleaner test of the BHS theorem, because if it is true, the primary determinant of the choice between the two types should be the level of prospective debt agency costs. In contrast, an examination of the decision to issue callable or noncallable debt requires sorting out not only the need to control agency costs, but potentially different recontracting costs and opportunities as well. A comparison of fixed price and make whole call provisions holds constant the fact that both eliminate the potential resistance of holdouts and the need to control agency costs, but potentially different recontracting costs and opportunities as well. A comparison of callable and noncallable debt requires sorting out not only the need to control agency costs, but potentially different recontracting costs and opportunities as well. A comparison of callable and noncallable debt requires sorting out not only the need to control agency costs, but potentially different reconcontracting costs and opportunities as well. A comparison of callable and noncallable debt requires sorting out not only the need to control agency costs, but potentially different reconcontracting costs and opportunities as well.

Our empirical approach is unique in two respects. We are the first to employ a continuous measure (representing the moneyness of the embedded call provision) as a dependent variable, reflecting the fact that the sensitivity of the value of the call option to changes in the value of the promised cash flow stream represents the primary distinction between fixed price and make whole call provisions. This is an innovative feature of our study which cannot be employed in an examination of the choice between callable and noncallable debt, since noncallable debt has no embedded option. We also utilize a structural model that is designed to account for the fact that, if the BHS theorem is true, the selection of a fixed price call provision and the covenant restrictions contained in the indenture will both be influenced by the magnitude of prospective bondholder-shareholder conflicts (Reisel, 2014).

Covenant selection appears to matter. A comparison of covenant provisions reveals an important distinction between fixed price and make whole callable issues: Among the 1105 debentures in our final sample of nonfinancial issuers, fixed price callable issues have ten covenant provisions on a median basis, compared with five for make whole callable issues. Within that difference of medians, covenant terms designed to control specific aspects of investment and financing policies appear much more frequently in the indentures of fixed price callable issues. Independent of the capacity for changes in the value of an embedded fixed price call option to mitigate agency costs, these findings would appear to suggest that fixed price callable issues attempt with greater frequency to reduce agency costs by imposing more constraints on specific actions of the issuer than are required by make whole callable debt.

We next examine the characteristics of the firms that issued make whole and fixed price callable debt over the sample period. Logit regression estimates show that firms are more likely to select a fixed price call over a make whole call provision when the firm is (1) smaller, (2) uses more leverage, (3) has recently experienced greater sales growth and higher operating cash flow, (4) generates a lower return on assets, (5) spends less on research and development and (6) merits a lower bond rating—all characteristics considered to be indicative of higher agency costs. The results also show that fixed price callable debt is subject to a more restrictive set of covenant restrictions, even after controlling for the attributes of the issuer.

A sensible interpretation of these findings might be that firms issue debt with fixed price call provisions when there is greater need to mitigate debt agency costs with the embedded call option and/or (2) facilitate the elimination of a greater number of restrictive covenants. But drawing a conclusion along those lines would ignore the tangled web of cause and effect that likely connects the level of bondholder-shareholder conflicts with the severity of covenant restrictions and the selection of a fixed price call provision (Smith and Warner, 1979, Barnea et al., 1980). The selection of the type of call provision and the level of covenant restrictions might not be linked by a direct cause and effect relation, but instead coincident with an omitted variable.

The likelihood that cause and effect run in both directions means we cannot examine the influence of agency costs on the choice of a fixed price call provision without controlling for the simultaneous selection of covenant restrictions. We therefore employ a structural model which utilizes the natural log of the ratio of the issue price (B) divided by the call price (X) as a dependent variable. Its purpose is to reflect the moneyness of the embedded call provision, and thus gauge the sensitivity of the value of that option (value sensitivity or delta) to changes in the option-free value of the promised cash flow stream (or equivalently, changes in the option-adjusted yield). The dependent variable will be higher when the value of the call provision is more sensitive to changes in the yield. Make whole call provisions are less sensitive to changes in yields, and because of their generally higher redemption price at issue, will have a lower value of LN (B/X). For issues with a fixed price call provision, a generally lower call

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2 A make whole call feature requires a redemption price that will exceed the market value of the security unless the credit spread is very small. This implies that make whole debt cannot appropriate wealth from the bondholders, thereby limiting its ability to control debt agency costs.

3 The holdout problem occurs because bondholders have an incentive to retain their bonds knowing that, if other bondholders tender their securities, the risk faced by the remaining fixed claimants will be reduced.
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