ELSEVIER Journal of Financial Economics 59 (2001) 63–99

JOURNAL OF Financial ECONOMICS

www.elsevier.com/locate/econbase

Pricing the strategic value of putable securities in liquidity crises[☆]

Alexander David*

Capital Markets Section, Board of Governors of the Federal Reserve System, Washington, DC 20551, USA

Received 28 May 1999; received in revised form 17 May 2000

Abstract

Putable security holders have a de facto first claim on the firm's liquid assets and can threaten to force solvent issuers to bear financial distress costs. Their threatening power implies that the puts have a *strategic* value larger than their *intrinsic* value. Strategic value depends on the issuer's size, potential distress costs, and the distribution of put ownership relative to the firm's liquidity position. The analysis of Kmart's put-induced crisis in 1995, and a calibration to observed secondary market yield reductions on poison put bonds, shows that strategic value is an important determinant of payouts received by bondholders. © 2001 Elsevier Science S.A. All rights reserved.

[☆]I am grateful to two anonymous referees as well as John Ammer, Michael Brennan, Mark Carey, Jennifer Carpenter, Greg Duffee, Hayne Leland, Nellie Liang, Ayesha Malhotra, Joe Ostroy, Haluk Unal, Pietro Veronesi, and Chunsheng Zhou for helpful conversations and advice on the issue, to Mike Pizzi for excellent research assistance, and to Mark Fisher for several Mathematica tips. I also thank seminar participants at the Financial Engineering Workshop at the University of Chicago, Finance Department, University of Maryland at College Park, Charles River Associates, Fixed Income Research Department at Lehman Brothers, Capital Markets Group at the International Monetary Fund, and conference participants at the May 1997 Seventh Annual Derivatives Securities Conference at Kingston, Ontario, and the June 1997 Western Finance Association Meetings at San Diego, California. Finally, I thank Martin E. Welch III, Senior Vice President and Chief Financial Officer at Kmart, for providing some important information about its deal. All errors in the analysis are my own responsibility.

* Corresponding author. Tel.: + 1-202-452-2333; fax: + 1-202-452-5296.

E-mail address: adavid@frb.gov (A. David).

PII: S0304-405X(00)00082-9

JEL classification: G13; G33

Keywords: Credit risk protection; Poison puts; Liquidity trigger; Bankruptcy costs; Multilateral negotiations

1. Introduction

Putable securities have been issued under various forms by corporations in recent years, often motivated by the need to protect investors against major declines in value, and thus they potentially thicken markets by drawing in more conservative classes of investors. However, as revealed in several cases in the financial media in recent years, such securities can often exacerbate liquidity crises for solvent issuers because they provide security holders a de facto first claim on the firm's available funds following a major credit-debilitating event, giving them the ability to force the issuer to either incur costly asset sales, raise its borrowing costs, or, in the most acute cases, file for a costly bankruptcy. Holding a threatening weapon can induce gaming behavior among such security holders and often these bondholders can use their strategic position to extract payments from equity holders in excess of the contracted payment at the time of exercise. Along similar lines, Dunn and Spatt (1999) suggest that the ability of putholders to extract a side payment from the mortgage borrower at the time of a costly refinancing partly explains why such lending contracts are typically callable but not putable. In this paper, I model multilateral negotiations between putable bondholders and the firm in an explicit financial distress setting and show that the strategic value of a typical bondholder depends on his size, on the issuer's potential financial distress costs, and on the distribution of ownership of putable debt relative to the firm's liquidity position. The analysis of Kmart's put-induced crisis in 1995, and a calibration to observed secondary market yield reductions on poison put bonds, shows that the strategic value is an important determinant of payouts received by putable bondholders.

Two highly publicized negotiations illustrate the severity of the possibilities discussed. In September 1995, Kmart Corp. was on the brink of a bankruptcy filing because of the downgrading of its debt to nearly speculative grade by the major rating agencies. A further downgrade would trigger the put of $550 million of poison put bonds. Despite having more than $1 billion in cash and other marketable securities, and an overall asset value of $16 billion, Kmart was prohibited by covenants written by senior bank lenders to accelerate payments on more than one-fifth of the outstanding putable debt. The covenant limited the extent of the effective violation of seniority through put exercise on junior debt, thus preserving the value of senior holders amid declines in firm value. Therefore, exercise of more than a critical proportion would force Kmart into