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Michi Nishihara, Takashi Shibata

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Asset sale, debt restructuring, and liquidation *

Michi NISHIHARA[†][‡] Takashi SHIBATA[§]

Abstract

This paper considers a dynamic model in which shareholders of a firm in distress have a choice of whether the firm proceeds to debt restructuring or direct liquidation at an arbitrary time. In the model, we show the following results. Fewer asset sales, lower financing, debt renegotiation, and running costs, a lower premium to the debt holders, a lower cash flow volatility, and a higher initial coupon increase the shareholders' incentive to choose debt restructuring to avoid full liquidation. In the debt renegotiation process, the shareholders arrange the coupon reduction and use equity financing to retire a part of the debt value to the debt holders. The timing of debt restructuring always coincides with that of liquidation without debt renegotiation. Most notably, the shareholders do not prefer asset sale in debt restructuring even if they face high financing costs. The possibility of debt renegotiation in the future increases the initial leverage ratio in the optimal capital structure.

JEL Classifications Code: C73; G31; G33.

Keywords: real options; asset sale; debt renegotiation; liquidation; capital structure.

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†Corresponding Author. Graduate School of Economics, Osaka University, 1-7 Machikaneyama, Toyonaka, Osaka 560-0043, Japan, E-mail: nishihara@econ.osaka-u.ac.jp, Phone: 81-6-6850-5242, Fax: 81-6-6850-5277

‡Swiss Finance Institute, École polytechnique fédérale de Lausanne, 1015 Lausanne, Switzerland

§Graduate School of Social Sciences, Tokyo Metropolitan University, 1-1 Minami-Osawa, Hachioji, Tokyo 192-0397, Japan, E-mail: tshibata@tmu.ac.jp, Phone: 81-42-677-2310, Fax: 81-42-677-2298