



# Credit ratings and the choice of payment method in mergers and acquisitions



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## ABSTRACT

This paper establishes that credit ratings affect the choice of payment method in mergers and acquisitions. We find that bidders holding a high rating level are more likely to use cash financing in a takeover. We attribute this finding to lower financial constraints and enhanced capability of highly rated firms to access public debt markets as implied by their higher credit quality. Our results are economically significant and robust to several firm- and deal-specific characteristics and are not sensitive to the method used to measure the likelihood of the payment choice or after controlling for potential endogeneity bias.

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## 1. Introduction

Credit Rating Agencies (CRAs) play an important role in the finance world by assessing the creditworthiness of a particular firm, security or obligation (Securities and Exchange Commission (2003)) and assigning a rating. CRAs disclose and disseminate this information to the market (Healy and Palepu, 2001), alleviating information asymmetry and, consequently, lowering the firm's cost of capital. Additionally, prior studies provide evidence on how a firm's capability to access public debt markets, implied either by the existence of firm credit rating<sup>1</sup> or rating level,<sup>2</sup> can influence capital structure or investment decisions. In this respect, Koziol and Lawrenz (2010) argue that, due to the existence of rating-triggered events, like step-up bonds, loss of access to the commercial paper market and strategic advantages in bidding for contracts, credit ratings exert influence on firm capital structure decisions.

In turn, the capital structure decision has been proven to be of great importance in the corporate financing decision of merger and acquisition (M&A) investments. Bidding firms conduct M&As by using either cash or stock as the sole consideration in the transaction, while some transactions employ a mixture of cash and stock means of payment.<sup>3</sup> A growing body of prior M&A studies has provided evidence that cash-financed acquisitions are to a great extent funded by debt.<sup>4</sup> Moreover, in the literature which relates investment decisions with financial constraints, Fazzari et al. (1988) argue that information asymmetry influences firm

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<sup>1</sup> See Cantillo and Wright (2000), Faulkender and Petersen (2006), Lemmon and Zender (2010), Mittoo and Zhang (2008) and Harford and Uysal (forthcoming).

<sup>2</sup> See Diamond (1991), Bolton and Freixas (2000), Denis and Mihov (2003), Rauh and Sufi (2010) and Gopalan et al. (forthcoming).

<sup>3</sup> The use of cash as a method of payment in corporate takeovers was prevalent during the 1980's, followed by a decline during the 1990's, and it became popular again over the first decade of the new century (see Andrade et al. (2001) and Martynova and Renneboog (2008)).

<sup>4</sup> For instance, Bharadwaj and Shivdasani (2003), Faccio and Masulis (2005), Harford et al. (2009), Uysal (2011) and Elsas et al. (forthcoming).

investment decisions because it creates financial constraints in the credit markets. Along these lines, [Whited \(1992\)](#), [Gilchrist and Himmelberg \(1995\)](#), [Almeida et al. \(2004\)](#) and [Campello and Chen \(2010\)](#) use credit ratings as a measure of firm financial constraints in the credit markets and suggest that the existence of credit ratings reduces information asymmetry about firm value, thus lowering financial constraints. This allows firms with rated public debt to issue funds in a short notice according to their investment needs.

However, one could argue that the mere existence of a credit rating does not prove ex-ante that a rated firm exhibits a higher capability to borrow funds. To illustrate this, assume we have two firms A and B. Firm A has high growth opportunities and a robust financial structure, but it lacks public debt and credit rating. On the other hand, firm B has lower growth opportunities and a very low credit rating, as it faces a high debt burden and large bankruptcy costs. Obviously, in this case the unrated firm A has a higher debt capacity than firm B, despite the fact that it does not hold a credit rating. The above discussion raises two interesting questions with regards to the relationship between bidders' credit ratings, as implied by their capability to access public debt markets, and the choice of method of payment. Does the sole existence of the bidding firms' credit ratings – irrespective of the level – affect the financing decision in M&As? What is the effect of a rating level on the choice of the acquisitions' means of exchange?

Motivated by the low financial constraints of (highly) rated firms due to their relatively higher debt capacity and credit quality, we address these questions and examine the role of credit ratings in the choice of payment method in mergers and acquisitions. Pertaining to debt capacity, numerous prior studies use credit rating existence as a measure of debt capacity.<sup>5</sup> Accordingly, [Billett et al. \(2011\)](#) argue that firms with higher credit ratings face lower cost of debt, which, ceteris paribus, leads to increased debt capacity.

With respect to credit quality, [Liu and Malatesta \(2005\)](#) and [Frank and Goyal \(2009\)](#) posit that the higher the level of credit ratings, the lower the information asymmetry and the adverse selection problem faced by firms. Additionally, [Rauh and Sufi \(2010\)](#) demonstrate that low credit quality firms appear to rely more frequently on costly forms of debt financing that include secured bank-debt with tight covenants for liquidity and subordinated public-debt relative to high credit quality firms. Moreover, evidence from studies that examine specifically the effect of credit rating levels on bond yield spreads and exposure to rollover-risk demonstrate a strong negative relationship.<sup>6</sup> Finally, several regulations of financial institutions and other intermediaries are directly tied to credit ratings issued by “Nationally Recognized Statistical Rating Organizations” (NRSROs) (see [Kisgen \(2007\)](#)). In particular, a large number of institutional investors are barred from investing in low credit rating firms or below a certain threshold (investment grade) due to concerns related with investors' wealth protection. Thus, firms with high levels of credit ratings overcome these regulatory constraints and face a wider “investor base” when seeking to borrow funds in order to finance specific investment projects.

In this study, we use a sample of US acquisitions of publicly traded bidders over the period 1998–2009 in order to explore our main hypotheses which are summarized as follows: 1) bidders holding a credit rating should have better access to public debt markets. Therefore, this lack of financial constraints makes them less reluctant to spend their cash today as it will be relatively easier for them to borrow “fresh cash” in the future whenever needed.<sup>7</sup> However, this hypothesis does not take into account the full dimensions of a firm's debt capacity condition as analyzed above. In fact, the mere existence of bidding firms' credit rating does not necessarily mean higher debt capacity than unrated firms and therefore does not imply ceteris paribus a positive relation with the use of cash financing in M&As. Hence, the sign and magnitude of the association between rating existence and cash means of exchange are matters of empirical investigation; 2) bidders with a higher credit rating level (i.e., better credit quality) face relatively better opportunities to borrow due to lower cost and higher demand for their debt securities. Therefore, we expect a positive relationship between rating level and cash method of payment in M&As.

We use different econometric methodologies to measure the probability of the choice of payment method and we find that: i) The likelihood of a cash offer or fraction of cash used as payment method in the takeover bid is not significantly associated with bidder credit rating existence; ii) The likelihood of a cash offer or fraction of cash used in the acquisition bid has a strong positive relationship with bidding firm credit rating level. In economic terms, after transforming the coefficients of our regressions into average marginal effects, one point rise in bidder rating level increases the likelihood of cash means of financing used in an M&A transaction by 7.04% over the sample average; iii) Unused debt capacity, measured with the relative credit rating level of bidder to target, also appears to be a determinant of cash financing in M&As corroborating the view that credit ratings are related with the choice of payment method in acquisitions; iv) Our main results continue to hold even after controlling for the possible endogenous nature of the main variables of interest, credit rating existence and credit rating level.

This study has several contributions in the M&As, capital structure and credit ratings literature. First, it adds to the existing literature on the determinants of method of payment, and particularly the association between a firm's credit rating and the use of cash or stock financing in acquisitions. Second, it examines both credit rating existence and credit rating level as measures of a firm's capability to access public debt markets. Third, it provides further evidence regarding the relation between credit ratings and a firm's capital structure decisions; in particular, the financing decision in takeover bids. In general, our results imply that credit ratings mitigate information asymmetry and, consequently, reduce bidding firms' cost of capital; firms holding a high rating face lower financial constraints and can issue public debt for investment reasons with relatively less frictions. Our findings also provide further direct implications for academics and practitioners. In particular, bidding firms with high credit quality and access to public

<sup>5</sup> For instance, see [Cantillo and Wright \(2000\)](#), [Faulkender and Petersen \(2006\)](#) and [Lemmon and Zender \(2010\)](#).

<sup>6</sup> See [West \(1973\)](#), [Liu and Thakor \(1984\)](#), [Ederington et al. \(1987\)](#), [Ziebart and Reiter \(1992\)](#), [Chen et al. \(2007\)](#) and [Gopalan et al. \(forthcoming\)](#).

<sup>7</sup> Note that cash used in M&A transactions may be sourced either from past operations or from additional debt; the source of accumulated cash is beyond the scope of this paper. The point we wish to make here is that, irrespective of the source of cash, rated bidders might be more inclined to make use of it due to their ease of access to the credit markets in the future.

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