Quantifying private benefits of control from a structural model of block trades ☆

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ABSTRACT

We study the determinants of private benefits of control in negotiated block transactions. We estimate the block pricing model in Burkart, Gromb and Panunzi (2000) explicitly accounting for both block premiums and block discounts in the data. The evidence suggests that the occurrence of a block premium or discount depends on the controlling block holder's ability to fight a potential tender offer for the target's stock. We find evidence of large private benefits of control and of associated deadweight losses, but also of value creation by controlling shareholders. Finally, we provide evidence consistent with Jensen's free cash flow hypothesis.

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1. Introduction

Current approaches to estimating private benefits of control rely on empirical proxies, such as the block premium or the voting premium, and on the use of control variables to remove from these proxies aspects unrelated to private benefits of control.[1] This paper offers an alternative approach to estimating private benefits of control by introducing a structural model of the determination of the block premium in private negotiations of minority blocks, and using data on control transactions to estimate the corresponding structural parameters.

[1] The block premium is the difference between the negotiated price per share in the traded block and the closing exchange price per share after the trade is announced (see the seminal paper by Barclay and Holderness, 1989). For a review of the literature, see Benos and Weisbach (2004). Eckbo and Thorburn (2003) offer an alternative approach to inferring private benefits.

The structural model deals with three main issues present in the current literature. First, the block premium is not a clean measure of private benefits, because the block premium combines information from private benefits with information from the change in share value associated with the new block holder.[2] Dyck and Zingales (2004) disentangle the effect of private benefits from that of changes in share value with an elegant, model-based adjustment to the block premium. According to their model, the adjusted block premium is the average private benefit between seller and buyer. However, their estimation takes the increase in share value as given and does not internalize the fact that any increase in private benefits occurs simultaneously with a decrease in share value.

Second, blocks often trade at a discount with respect to the post-announcement stock price. In the US, both the size of the discount and the proportion of discounts in the data are large. The literature, however, has treated block discounts as if they were low realizations of the block premium and we show that this approach leads to a downward-biased, and often negative, estimate of private benefits of control.

Third, the current literature is potentially subject to a selection bias in that it analyzes private benefits only in target firms whose block is traded. We show in the paper that under a weak condition, data on block trades deliver lower and upper bound estimates of private benefits of control for firms with controlling blocks whether or not they are traded.

The backbone of our structural approach is the estimation of the block pricing model in Burkart, Gromb and Panunzi (2000) (hereafter BGP). In the BGP model, if a private negotiation to trade a minority controlling block fails, the buyer can still acquire control via a tender offer. The presence of this alternative acquisition method implies that the block price reflects the outcome of the potential tender offer. In particular, BGP show that the occurrence of a block premium or a block discount depends on how effective the block owner can be in opposing a tender offer by a potential buyer.

The identification strategy uses data on observable variables—the block premium, the price impact, i.e., the stock price change around the block trade, and the block size—to infer properties of unobservable variables—the extraction rate, the private benefits, and the change in security values. From the model, we obtain equations for the optimal extraction rates and private benefits, the price impact, and the block premium. After eliminating all unobservable, endogenous variables, we arrive at a single equation that describes the block premium as a function of structural parameters that can be estimated with non-linear methods.

The paper offers three main results. First, we show that the BGP model fits several features of the data on block trades. Block premiums (discounts) in the data tend to occur when the block owner is predicted to be effective (ineffective) in opposing a tender offer. Further, BGP predict that tender offers on targets with minority controlling blocks are an off-equilibrium outcome. Consistent with this prediction, we provide evidence that there are no hostile tender offers for target firms where a controlling, minority block exists.

Second, we estimate that private benefits represent approximately 3–4% of the target firm's equity value or 10% of the value of the block. In contrast with other studies (e.g., Dyck and Zingales, 2004), these estimates of private benefits are statistically significantly different than zero. Despite these significant average private benefits, the distribution of private benefits is highly positively skewed: Approximately 35% (40%) of trades are associated with private benefits of less than 0.1% (1%). We also provide the first estimate of the size of the deadweight loss associated with private benefits. On average, each $1 of private benefits costs shareholders approximately $1.76 of equity value.

The presence of private benefits of control does not mean that dispersed shareholders have nothing to gain from having a controlling shareholder. We estimate an increase in share value (absent private benefits) of 19% at the time of the block trade. This estimate implies that blockholders—and the identity of specific blockholders—matter for firm value.

We show that private benefits of control as a fraction of equity increase with the firm's cash holdings to total assets and decrease with short-term debt to total assets. Moreover, the elasticities of private benefits to cash holdings and to short-term debt are similar in size (in absolute value). This evidence supports Jensen's (1986) free cash flow hypothesis (see also Stulz, 1990; Hart and Moore, 1995) and contrasts with previous literature, which failed to identify an unambiguous effect of leverage on private benefits. Private benefits also are smaller when: Total target assets are high and past stock performance is low, suggesting increased monitoring of large firms and weak performers; the target firm's ratio of intangible assets to total assets is low, providing supporting evidence for Himmelberg, Hubbard, and Palia (1999); and, when country-wide governance is stronger.

Third, we find evidence that acquirers' overpay an average between 2% and 5% of the target firm's value relative to the BGP benchmark price. In contrast, the previous literature has suggested that buyers do not overpay. What may partially explain this difference in results is that prior tests focus on the subsample of deals where the buyer is a publicly traded corporation. Specifically, Barclay and Holderness (1989) and Dyck and Zingales (2004) reject the overpayment hypothesis by rejecting the hypothesis that the buyer's stock price falls around the block trade event. However, in our data the sample composed of buyers who are not publicly traded corporations displays a larger block premium than the whole sample.

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[2] The evidence suggests that block trades are associated with control transfers (Barclay and Holderness, 1991, 1992; Bethel, Liebeskind, and Opler (1998), for the US; and Franks, Mayer, Renneboog, 1995, for the UK) producing generally an increase in share value and a transfer of private benefits to the new block owner (e.g., Barclay and Holderness, 1989; Dyck and Zingales, 2004). The voting premium, too, contains information on private benefits of control and on changes in share value (e.g., Zingales, 1995).