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The winner's curse in acquisitions of privately-held firms

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ABSTRACT

The winner's curse is often associated with acquisitions of publicly-traded firms but not with private acquisitions. Using an event study methodology for over 22,000 private acquisitions of U.S. firms between 1985 and 2015, we examine a possible winner's curse for such acquisitions. While the average return to private acquisitions is slightly positive, fully 46% of acquirers experience statistically significant negative abnormal announcement returns, strongly suggesting a winner's curse. We also find that acquirer competition, informational asymmetries, and overconfidence all reduce announcement returns, which is consistent with the winner's curse. In addition, we carry out a comparative analysis of acquisitions of publicly-traded targets and find a statistically significant negative average return, as is consistent with much previous work. We find that 54% of acquirers of publicly-traded firms obtain statistically significant negative returns, suggesting a stronger winner's curse for public than for private acquisitions.

1. Introduction

The original statement of the *winner's curse* is due to Capen, Clapp, and Campbell (1971) who study bidding for oil and gas leases and provide a straightforward formulation in which there is uncertainty regarding the amount of oil in a given tract of land. Different bidders have different estimates of the amount of oil and therefore of the value of the tract. If the average estimate is an unbiased estimate of the true value, then the highest estimates will normally exceed the true value and the winning bidder would be one whose value estimate is relatively high – exceeding the true value of the tract. If bidders bid naively based on their value estimates, the winning bidder would typically overpay and be disappointed by the ultimate realized value of the acquired oil lease.

This standard formulation of the winner's curse requires some kind of behavioral bias or other departure from full rationality on the part of bidders. A fully rational firm bidding in a competitive auction would reduce, or 'shade,' its bid depending on the number of bidders, the amount of uncertainty, and other factors to adjust for the fact that the winning bid is likely to be based on a value estimate containing a large positive error, as shown by Cox and Isaac (1984). In a fully rational equilibrium, the expected price would appropriately reflect the underlying value and no winner's curse would arise. However, the existence of the winner's curse bias has proven to be very robust both in experiments, (e.g. Grosskopf, Bereby-Meyer, & Bazerman, 2007), and in a wide variety of other empirical settings, as described in Thaler (2012).

The returns to acquisitions of *publicly-traded* firms ("public acquisitions") have been extensively studied and, in particular, a possible winner's curse phenomenon has been well documented. However, the literature on returns to acquisitions of *privately-held* target firms ("private acquisitions") is much smaller and has placed little emphasis on a possible winner's curse. In this paper, we investigate a possible winner's curse for private acquisitions.

Specifically, this paper addresses three primary research questions. First, we ask whether private acquisitions exhibit a winner's curse in the sense that acquirers tend to overpay for acquisition targets. Second, we ask what factors contribute to the existence and magnitude of any winner's curse for private acquisitions, focusing on informational asymmetries and overconfidence, among other factors. Third, we investigate whether the pattern of returns for private acquisitions differs from that for public acquisitions.

The market for private acquisitions is of particular interest for several reasons. First, the market for private acquisitions is large and important, and such acquisitions form a significant part of the market for corporate control. Any analysis of the winner's curse that focuses primarily on public acquisitions cannot necessarily be

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taken as providing a complete picture of the acquisition market. We therefore seek to provide a complementary analysis of the winner's curse in private acquisitions.

Second, the analysis of private acquisitions is very important for the study and practice of entrepreneurship and entrepreneurial finance. The typical pattern for successful entrepreneurial companies is for those companies to either have initial public offerings or be acquired as privately-held targets, with acquisitions being much more frequent than IPOs. Therefore, understanding the acquisition process for private targets and, in particular, assessing the importance of any winner's curse phenomenon, is a potentially important contribution to the study of entrepreneurial finance.

Third, it is possible or even likely that the pattern of returns to private acquisitions may differ in significant ways from the pattern of returns to public acquisitions. Private targets are often younger firms just emerging from entrepreneurial status and typically much less information about them is publicly available. Simply assuming that private and public acquisition returns would exhibit a similar winner's curse would be unwarranted without careful study.

In addition, we suggest that the market for private acquisitions is an important laboratory in which to study the effects of informational asymmetries and bargaining power. Information asymmetries are thought to be important in private equity markets (e.g. Amit, Brander, & Zott, 1998). We show that informational asymmetries would be expected to worsen any winner's curse. However, the relative bargaining power of acquirers and targets is also much more asymmetric for private acquisitions than for public acquisitions, which might be expected to reduce any winner's curse. The informational and bargaining characteristics of private acquisitions therefore suggest that such acquisitions might exhibit a winner's curse and might have either higher or lower returns than public acquisitions. This paper provides an assessment of these issues.

Our paper makes several significant contributions. Using a large and up-to-date data set consisting of over 22,000 acquisitions of private U.S. companies over the 1985–2015 period and over 3500 acquisitions of publicly-traded U.S. targets over the same period, we find what we interpret as a significant winner's curse for privately-held targets. We believe that our paper is the first to draw attention to a likely winner's curse in the market for private acquisitions and is the first to clearly identify the role of informational asymmetries in the market for private acquisitions. Higher levels of informational asymmetry among private acquisitions are associated with lower returns and therefore with a stronger winner's curse, supporting the role of asymmetric information that we propose in our theoretical development. If the only significant difference between public and private acquisitions were higher levels of informational asymmetry for private acquisitions, we would expect a more severe winner's curse for private acquisitions. In fact, however, we find that the winner's curse for private acquisitions is significantly weaker than for public acquisitions. We therefore infer that are other important differences between private and public acquisitions in addition to different levels of informational asymmetry. More broadly, our analysis provides valuable complementary findings to the existing literature on acquisition returns.

Section 2 describes our conceptual framework and provides an overview of much of the relevant literature not cited in the introduction. Section 3 is devoted to a discussion of the event study methodology we use to estimate returns to acquisitions and describes our data, including our measures of informational asymmetry. Section 4 reports the main empirical results and Section 5 provides concluding remarks.

2. Literature review and theoretical framework

2.1. Previous literature

The possibility of a winner's curse for acquisitions of publicly-traded targets has been studied by a number of authors, including an early contribution by Varaiya and Ferris (1987) who offer the following statement: "In competitive takeover bid situations, the winner tends to be that bidder who most overestimates the true value of the target company." In such a case, the winning acquirer would be "cursed" as the true value of the target would be less than what it expects, and possibly less than the purchase price.

Strikingly, a primary finding of the literature on acquisitions of publicly-traded firms is that all or nearly all of the gains arising from the acquisitions accrue to shareholders of the target firms, while the gains to shareholders of acquiring firms are surprisingly low and perhaps negative. Using a large sample of acquisitions of publicly-traded targets, Betton, Eckbo, and Thorburn (2008) find that acquirers paid an average premium of 46% relative to the prior stock market price of the target firms, generating a very large gain for target firm shareholders. In marked contrast, shareholders of acquiring firms get very little if any gain, as summarized by Officer, Poulsen, and Stegemoller (2008), who state: "Three decades of evidence on takeovers of publicly-traded targets by publicly-traded acquirers demonstrates that such takeovers are at best wealth neutral for bidding firm stockholders and potentially wealth destroying." More than half of all acquisitions of publicly-traded targets generate a negative return to the acquirer when the acquisition is announced. Eckbo (2009) notes that the overall average short-run return is at best low and, in many studies, negative. The winner's curse provides a possible explanation for why acquirers might overpay for acquisitions and why their abnormal returns tend to be either very low or negative.

There is a small but informative literature on acquisitions of privately-held targets, including Chang (1998), Draper and Paudyal (2006), Moeller, Schlingemann, and Stulz (2007), and Officer et al. (2008). This literature finds that, unlike the results for acquisitions of publicly-traded enterprises, the abnormal returns to private acquisitions are positive on average. Faccio, McConnell, and Stolin (2006) compare the returns to public and private acquisitions and find that this difference persists even after controlling for a wide range of explanatory factors. Therefore, private acquisition returns are viewed as less puzzling than acquisitions of publicly-traded firms, and there has been relatively little discussion of a possible winner's curse phenomenon for private acquisitions.

The winner's curse may be made more severe by asymmetric information. The original argument of Capen et al. (1971) does not require informational asymmetries. All bidders may be equally uncertain—they may draw their estimated value from the same distribution (and the seller may be equally uncertain), but the winning bidder will still overbid if it does not appropriately shade its bid below its estimate of the target's value. However, it is likely that informational asymmetries between the seller and the bidders would worsen the winner's curse, as described in Thaler (2012).

Under symmetric uncertainty, an acquirer with an unusually positive assessment of target quality is likely to make the winning bid, and often its bid would turn out to be "too high." However, occasionally the actual value of the target would turn out to be very high—a very favorable draw from the value distribution. Under *asymmetric* information, the target's quality is better understood by the target itself. The occasional positive outcomes would then be eliminated, or at least reduced, as the target would be unwilling to sell in those situations where it happens to be more valuable than the highest bid. Rational acquirers would anticipate such adverse selection but even so asymmetric information could make a winner's curse worse. The winner's curse would be further exacerbated