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Does going private add value through operating improvements?

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ABSTRACT

Previous studies document a large positive effect of private equity ownership on operating performance between 1980 and 1990 while evidence on the more recent buyout wave is mixed. We revisit the evidence on post-LBO performance and offer an additional explanation for the varied and time-inconsistent results found in the literature: the effect of accounting for LBO transactions and its change over time. Using hand-collected financial statements for 183 U.S. public-to-private LBOs, we illustrate how previously used proxies for operating performance suffer from an accounting distortion induced by the buyout transaction. We reproduce the results of previous studies. However, once proxies are modified slightly to account for the LBO process, we find no robust evidence of post-buyout improvements in public-to-private LBOs, regardless of the time period of the study.

1. Introduction

A large and growing share of the economy is managed by the private equity (PE) industry. At the end of March 31, 2015, private equity industry leader Kohlberg Kravis Roberts & Co. (KKR) owned stakes in 99 firms for a total of about $200 billion in sales and over 940,000 employees.[1] This made KKR the second largest domestic employer after Wal-Mart Stores Inc. and the fourth largest domestic company by revenue.[2] Nominal dollars committed each year to U.S. private equity funds have increased exponentially from $0.2 billion in 1980 to over $200 billion in 2007.[3]

Given the large share of private equity owned firms in the economy and motivated by Jensen's (1986, 1989) free cash flow hypothesis, a large body of research has investigated whether leveraged buyouts (LBO) improve the operating performance of target firms. The concentrated ownership and increased leverage that LBOs provide are expected to make monitoring more

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1 Source: KKR website: http://www.kkr.com/our-firm/kkr-today, accessed on June 7th, 2015.
2 Source: KKR 10-K dated December 31, 2014, p. 13.
3 Source: Kaplan and Strömberg (2009), p. 125.

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effective and align management's incentives with those of private equity shareholders. Theory suggests that these effects should be stronger in public-to-private LBOs relative to private-to-private deals due to the added benefit of transitioning away from diverse public ownership. There is strong empirical evidence of post-LBO improvements in operating performance for the first buyout wave of the 1980s (e.g., Kaplan, 1989; Baker and Wruck, 1989; Smith, 1990) and mixed results for the second buyout wave of 1990 to 2006 (e.g., Cressy et al., 2007; Guo et al., 2011; Boucly et al., 2011; Cohn et al., 2014; Weir et al., 2015).

In this paper, we examine the impact of adjusting for accounting-induced distortions in empirical measures of operating performance, the key outcome variable in this literature. In most settings, LBO accounting mechanically induces an upward bias into LBO targets' performance measures. This subtle but economically important bias is easily misinterpreted as an LBO-induced improvement. We propose an effective approach to adjust for this bias. Applying our adjusted measure of operating performance, we do not find evidence of operating performance improvements in a large sample of U.S. public-to-private LBOs. This is true even for the first buy-out wave, where prior research has found the strongest signs of performance improvements.

We contribute to the literature in two ways: First, we introduce an empirical measure of operating performance that is undistorted by the accounting depiction of the LBO deal in the target's books. Adjusting for these LBO-induced accounting distortions is potentially important regardless of jurisdiction (U.S. or international) or data source (financial reporting data or tax data). Second, using this measure, we reexamine whether LBOs improve target firms' operating performance for a large sample of U.S. public-to-private deals that is more data comprehensive than those analyzed in prior studies. Overall, our analysis of the conceptual and practical difficulties in measuring operating performance highlights that accounting-based variables used in empirical corporate finance research can be sensitive to subtle accounting issues.

We document the effects in the U.S. setting, but our results have implications for all settings in which buyouts are studied. Depending on the accounting rules in place, these issues can arise in tax statements and international studies as well. More specifically, when a firm is acquired, the premium paid often affects the financial data studied via a revaluation of the target firm's balance sheet. Only in some cases (e.g., the deal is structured as a recapitalization and certain tax elections in the case of tax statements) does this revaluation not occur. Significant revaluations increase a firm's assets dramatically at the time of the buyout while at the same time inducing a subsequent steady decline in assets due to higher amortization and depreciation over most of the sample period. Since most common performance measures are scaled by assets, this induces an upward bias in common measures.

In order to analyze the severity of the bias as well as to propose alternative measures, we hand-collected a complete set of thoroughly audited financial statements, deal structure information, and accounting treatments for a sample of 183 public-to-private LBOs with deal values of over $50 million (mn). This allows us to present a uniquely detailed depiction of the financial statements of LBO targets and highlight the issues associated with LBO transactions that complicate comparisons of financial numbers pre- and post-acquisition. We employ the advanced DuPont decomposition (Nissim and Penman, 2001; Fairfield and Yohn, 2001; Soliman, 2008), to discuss existing proxies for operating performance used in the literature. We analyze which dimensions of operating profitability are captured by each measure (e.g., why scaling by some notion of invested capital yields a conceptually more appropriate performance measure than scaling by sales, which only yields a subcomponent of performance) and their robustness to accounting distortions. We then discuss possible remedies.

Our approach is to choose a measure that is intuitive, conservative and clean of accounting distortions. We demonstrate that EBITDA adjusted for restructuring charges and scaled by tangible assets is an unbiased proxy for operating performance in the LBO settings. By neglecting intangible assets in the denominator but keeping the returns to the intangibles (i.e. higher revenues, etc.) in the numerator, one sidesteps the accounting distortion that is predominant in intangibles such as goodwill.[4] In addition, we argue for matching restructuring costs with their benefits and incorporate them into our performance measure. The restructuring of acquired firms is typical in LBOs and neglecting these cash outflows in the numerator will likely bias ROA upward.[5] We acknowledge that because our proposed measure neglects the costs of re-investing into the business, it is not necessarily a good measure of sustainable improvements. However, if there are no measurable operating improvements before taking re-investment costs into account, there are likely no improvements after taking investments into account either. Thus, we interpret finding no result with our conservative measure as robust evidence of no actual improvements. We provide descriptive evidence about the magnitude of accounting distortions for our sample, analyze the main sources of the distortion (goodwill and restructuring charges), and discuss possible determinants of variation in magnitude between first and second wave LBOs.

In our empirical tests we employ various definitions of control groups used by prior studies to benchmark post-LBO performance: industry median performance; control firms screened by industry, size, and ROA; and a propensity score matched control group. In each case, we find some evidence of improvements with an unadjusted measure of return-on-assets and no improvements when using our return-on-tangible-assets measure. We also replicate the previous studies by Kaplan (1989) and Guo et al. (2011) using the originally reported operating performance measures and our measure adjusted for accounting issues. For the period of the first buyout wave studied by Kaplan (1989) and Smith (1990), we find strong evidence of performance improvements before adjusting for accounting distortions and no evidence after adjusting for accounting distortions. For the

[4] This approach is also conservative. If a target firm completes an acquisition post-LBO, the associated increases in EBITDA will be incorporated in the numerator but the premium paid to acquire the assets (goodwill) will not be incorporated to the denominator.

[5] Restructuring charges typically represent cash outflows that will likely impact the asset base, everything else equal, and thus also affect ROA positively by reducing assets.