RESEARCH ARTICLE

Do corporations benefit from divesting to private equity acquirers? An empirical investigation

Paul Nary [ORCID]

Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania, USA

Correspondence
Paul Nary, Wharton School, University of Pennsylvania, 3620 Locust Walk, Philadelphia, PA 19104, USA.
Email: paulnary@wharton.upenn.edu

Abstract

Research Summary: From the perspective of the divesting firm, do divestitures to private equity (PE) acquirers perform differently from divestitures to corporate acquirers? If so, why? This question-based, empirical study shows that on average, divestitures to PE acquirers correlate with lower divesting firms′ shareholder returns than divestitures to corporate acquirers. The study explores whether these lower returns when divesting to PE acquirers are explained by the differences in PE acquirers′ distinct value creation strategies when it comes to target selection, ownership, or transaction timing. The results reveal that divesting firms′ lower shareholder returns when divesting to PE acquirers are more likely correlated with differences in value creation by PE acquirers due to their distinct ownership and transaction timing strategies, but not their selection strategies.

Managerial Summary: Private equity (PE) firms are prominent buyers of corporate divestitures, and PE firms′ strategies for creating value when acquiring divested businesses tend to differ from those of corporate buyers. Yet the performance implications, from the perspective of the divesting firm, of divesting a business

to a PE acquirer versus a corporate acquirer are not clear. In this study, I explore the differences in returns to firms divesting to PE acquirers versus those divesting to corporate acquirers. First, on average, divesting firms' returns are lower when divesting to PE acquirers. Second, these lower returns are more likely to occur when the PE acquirer may be expecting to create less value, or when firms choose to divest at a suboptimal time.

KEYWORDS

divestiture performance, divestitures, A&A, market for corporate assets, private equity

1 | INTRODUCTION

Divestitures may improve the overall allocation of resources across firms and lead to better firm-level governance by matching divested businesses with comparatively more suitable owners (Feldman, 2014; Feldman, 2016; Foss et al., 2021; Maksimovic & Phillips, 2001; Markides, 1992). Divesting firms rely on divestitures for corporate refocusing and renewal, to free up and reallocate resources, to optimize corporate scope, and to improve performance (Feldman, 2014; Hoskisson et al., 1994; Vidal, 2021). Conversely, acquirers are thought to target divested businesses complementary to their own resources to create value from synergy-based sources (Feldman & Hernandez, 2022). This value created by the acquirer may be greater than the value that would be created if the divested business remained with the divesting firm (Foss et al., 2021; Lippman & Rumelt, 2003). In fact, the extent of value creation by a potential acquirer is important for the divesting firm. In general, the more value the acquirer expects to create, the more value there is potentially to be shared by the divesting firm. For example, an acquirer may be willing to pay a higher price for a divested business it expects to generate high synergies, especially if other acquirers may also be interested in that business (Adegbesan, 2009; Barney, 1986, 1988; Bradley et al., 1988). Thus, heterogeneity in divestiture performance from the divesting firm's perspective may, at least in part, correlate with value creation by the acquirer. Indeed, prior research suggests the transaction outcomes for the divesting firm and the acquirer may depend on the combined characteristics of the divesting firm, the divested business, and the acquirer and its sources of value creation (Capron & Pistre, 2002; Capron & Shen, 2007; Feldman, 2020, 2021; Feldman et al., 2016; Feldman et al., 2019).[1]

---

[1]For example, in M&A generally, acquisitions of private rather than public businesses may lead to higher acquirer returns (Capron & Shen, 2007; Laamanen et al., 2014), whereas family ownership may lead to (a) higher returns to family-owned firms that acquire businesses from non-family-owned firms, and (b) higher returns to family-owned firms selling businesses to non-family-owned firms (Feldman et al., 2019). I cite these as a general illustration of how the characteristics of the counterparties and transacted assets may influence M&A transaction outcomes to motivate how the trilateral divesting firm–divested business–acquirer combination may influence divestiture performance specifically (Feldman, 2020, 2021).

In most work studying divestitures, the acquirer is assumed to be a corporation in pursuit of some type of synergies. Yet recently, private equity (PE) firms, which are distinct from corporations as a form of governance and in their business model, have gained prominence in the market for corporate assets. In 2021, PE firms participated in about 30% of all mergers and acquisitions (M&As) (Zhang, 2021). PE firms manage trillions of US dollars of investor capital, engage in thousands of M&A transactions, and may own in excess of 10,000 businesses in their portfolios at any time (Bain & Company, 2019; Brown & Witte, 2018). PE firms are professional buyers, owners, and resellers of businesses, which are generally kept as stand-alone entities because PE owners plan to exit them profitably through a sale or a public offering just a few years after acquiring them. To create value through their M&A activities, PE firms employ distinct strategies that may rely on one or more potentially idiosyncratic and PE-specific sources of advantage—for example, their ability to select undervalued targets, increase target value during their ownership period, and optimally time their transactions (Kaul et al., 2018; Nary & Kaul, 2023). The differences in the M&A value creation strategies of PE acquirers relative to the strategies of corporate acquirers may correlate with differences in how and how much value is created in a divestiture, and affect the divesting firm's potential share of that value and its transaction performance (Feldman, 2020, 2021; Foss et al., 2021; Kaul et al., 2018; Nary & Kaul, 2023). Even so, much of strategy research assumes that an acquirer of a divestiture is a corporation or disregards its identity, and the outcomes of divesting to a PE acquirer have been all but ignored in the strategy literature[2] (Feldman, 2020, 2021).

To understand the implications for divesting firms' performance when divesting to a PE acquirer rather than to a corporate acquirer, this study examines divesting firms' shareholder returns[3] from divestitures, and considers two questions. First, *do the divesting firm's shareholder returns differ when divesting a business to a PE acquirer rather than to a corporate acquirer?* Second, *if the divesting firm's shareholder returns differ, what is the likely explanation?* This study proposes that if potential divestiture performance differences exist, they may be

---

[2]Some recent work does encourage scholars to investigate outcomes of divesting to PE, in discussing the heterogeneity of divestitures and their performance (Chen & Feldman, 2018; Feldman, 2014; Vidal, 2021; Vidal & Mitchell, 2015), as well as heterogeneous effects of counterparty characteristics (Feldman et al., 2016, 2019; Laamanen et al., 2014), and the distinct advantages of PE acquirers in the market for corporate assets (Nary & Kaul, 2023), even making direct calls to "examine the consequences of divisional buyouts [by PE] for the corporate parents" (Kaul et al., 2018, p. 1293).

[3]This study focuses on the divesting firm's performance in a divestiture transaction. The influence of a single transaction on the divesting firm's overall performance may vary due to multiple factors—for example, whether a divestiture is part of a program of transactions over some length of time. Thus, a transaction's influence on overall performance is challenging to conceptualize and to estimate. Yet focus on transaction-level performance offers three benefits. First, transaction performance can be conceptualized and measured more precisely to correlate performance with acquirer type, even if the divesting firms engage in multiple divestitures with different acquirers. Second, some, but not all, transaction performance may be directly linked to firm-level outcomes—for example, if a large divestiture commands a high price and frees up significant capital. Third, short-term shareholder returns, as the most common measure of transaction performance, have been shown to correlate with firm-level performance, and are comparable across thousands of prior M&A studies, increasing the potential contribution of the current study's findings.

explained by differences in the value creation[4] potential of target selection, ownership, and transaction timing strategies of PE acquirers relative to those of corporate acquirers. As explained more precisely in the next section, the combined effect of these differences on divesting firms' performance is not immediately clear, because these strategies may jointly or separately affect how much value is created. Given the multiple distinct, yet potentially overlapping explanatory mechanisms, I adopt a question-based, abductive approach (Graebner et al., 2023), building on empirical studies of PE firms' behavior (Fidrmuc et al., 2012; Hege et al., 2018; Kaul et al., 2018) and theories of PE firms' sources of advantage in the market for corporate assets (Nary & Kaul, 2023), as well as conceptual work focusing on M&A value creation and ownership strategies (Barney et al., 2021; Feldman & Hernandez, 2022; Foss et al., 2021).

Using a sample of 1055 divestitures by 308 publicly owned US manufacturing firms, this study presents a rich set of empirical findings that both are consistent with, and add to, prior work (Kaul et al., 2018; Nary & Kaul, 2023). To answer the first question, I examine the average effect of divesting to PE acquirers. The results reveal that lower, even negative, shareholder returns correlate with divestitures to PE acquirers relative to those to corporate acquirers. These effects are robust to sampling bias based on the decision to divest.

To answer the second question, I study the three potential explanations for lower shareholder returns of firms divesting to PE acquirers. First, PE acquirers may non-randomly target undervalued or hard-to-value divested businesses distinct from those targeted by corporate acquirers. I find that the lower returns of firms divesting to PE acquirers persist after I use matching to balance such differences across treatment (PE acquirer) and control (corporate acquirer) groups of divested businesses. Thus, I find no evidence that the performance differences may be explained by the observable differences—such as parent size, diversification level, total goodwill, PE experience, or whether a noncore business is divested—in the characteristics[5] of divestitures to PE acquirers versus those to corporate acquirers. Second, PE acquirers' sources of ownership value creation may differ from the synergy-based sources of ownership value creation for corporate acquirers, affecting the total value created by the acquirer. I exploit heterogeneity in PE acquirers' motives that may correlate with different PE ownership strategies, distinguishing "direct" buyouts of divested businesses by PE acquirers from "indirect" buyouts as add-on acquisitions of divested businesses by PE-owned firms. These "indirect" buyouts may be motivated by synergy-based sources of value like those pursued by corporate acquirers, even if the PE firm is the ultimate owner (Castellaneta & Gottschalg, 2016; Hoskisson et al., 2013). I find that lower divesting firms' shareholder returns are associated with "direct" buyouts by PE acquirers, but not with "indirect" buyouts by PE-owned firms. Thus, lower divesting firm

---

[4]I focus on the potential value creation by the acquirer to explain differences in divesting firms' performance with divestitures to PE acquirers versus to corporate acquirers for two reasons. First, the total value created in a divestiture consists of the value created directly by the divesting firm from divesting the business (e.g., by freeing up capital for better uses) and the value created directly by the acquirer (e.g., from synergies). On average, I expect the divesting firm's direct value creation may not vary (at least not as much) with acquirer type, and may depend on additional factors. Yet value created by the acquirer, which may vary with acquirer type, is more likely to correlate with the divesting firm's transaction performance because the divesting firm may potentially share some of that value. Second, in elaborating on divestiture performance at the intersection of the characteristics of the divesting firm, the divested business, and the acquirer and its sources of value, I follow recent calls from strategy scholars to study the trilateral nature of divestiture transactions (Feldman, 2020, 2021; Kaul et al., 2018).

[5]Table A1 in Online Appendix A summarizes the differences in observable characteristics of divestitures in the treatment (PE) and control (corporate) groups before these differences are balanced in a matching procedure.

returns may be associated with direct PE ownership strategies that result in lower acquirer value creation. Third, PE acquirers may time their transactions more strategically than corporate acquirers do. I offer some evidence that PE acquirers' transaction timing strategies may correlate with lower divesting firm returns, as divesting firms' suboptimal timing in divesting their businesses to PE acquirers due to various types of financial distress is associated with lower returns. The analysis also suggests that PE acquirers' value creation strategies may interact, further affecting the divesting firms' returns. For example, the negative effects of PE acquirers' transaction timing strategies are diminished with "indirect" divestitures to PE-owned firms, which may create more value relative to "direct" divestitures to PE acquirers.

In summary, my findings suggest that divesting to PE acquirers (vs. corporate acquirers) may lead to lower divesting firm shareholder returns, which may be linked to PE acquirers' value creation via their distinct ownership and transaction timing strategies, but not their target selection strategies. This project makes two contributions to the strategy literature. First, it contributes to the literature on corporate strategy, the market for corporate assets, and M&A value creation. It elaborates the tension between the characteristics of the seller, the target, and a distinct acquirer like a PE firm, highlighting the nuances and heterogeneity of the M&A counterparties' dynamics of value creation and division in M&A transactions broadly (Adegbesan, 2009; Barney, 1986, 1988; Grimpe & Hussinger, 2014; Laamanen et al., 2014), and in divestitures specifically (Feldman, 2014, 2020, 2021; Feldman et al., 2019; Vidal & Mitchell, 2015). Second, this research contributes to the nascent stream of management studies focusing on PE firms and their role and behavior in the market for corporate assets, by showing how PE firms' idiosyncratic sources of M&A value creation may lead to distinct outcomes for other firms transacting with PE firms (Benner & Zenger, 2016; Berger & Ofek, 1996; Castellaneta & Gottschalg, 2016). It also describes the heterogeneity of PE buyouts and value creation strategies in "direct" acquisitions by PE acquirers themselves relative to "indirect" acquisitions by PE-owned firms. This is also one of the first studies to provide empirical evidence supporting the recent conceptual work on PE firms' sources of advantage in the market for corporate assets and ownership competence (Foss et al., 2021; Nary & Kaul, 2023).

2 | THEORY AND BACKGROUND

2.1 | Divestiture value creation and returns to the divesting firm

From the perspective of the divesting firm, what are the potential sources of heterogeneity in its divestiture performance that may correlate with acquirer type and characteristics? Generally, a divesting firm may expect to create value when, after divesting a business, its remaining resources are more efficiently allocated and in line with its strategic goals (Duhaime & Grant, 1984; Markides, 1992; Vidal, 2021; Vidal & Mitchell, 2015), when it can realign its incentives and resolve its agency conflicts (Feldman et al., 2016; Kaul et al., 2018), when it can rid itself of negative synergies and potential liabilities (Bergh et al., 2008), or when its strategies become easier to evaluate by stakeholders (Benner & Zenger, 2016; Feldman et al., 2016). Given the divesting firm's motive and its decision to divest, divestiture performance linked to the extent of this "internal" value creation should correlate with the divesting firm's own corporate scope and resource allocation strategies, rather than with the characteristics of the acquirer.[6]

---

[6]Although outside the scope of this study, there may be exceptions to this logic, creating a future research opportunity.

Yet there are two additional and related sources of heterogeneity may affect the divesting firm's overall divestiture performance, and these sources may be linked to the characteristics of the acquirer and the transaction.

The first source of potential heterogeneity is how much value is expected to be created by an acquirer of the divested business. The higher the expected synergies[7] between an acquirer and the divested business, the more value that acquirer may expect to create beyond the intrinsic value[8] of the divested business, the higher that acquirer's willingness to pay a steeper price for the divested business, and the higher the likelihood of increased returns for the divesting firm if it receives a price above the intrinsic value of the divested business (Adegbesan, 2009; Barney, 1986, 1988; Brandenburger & Stuart Jr., 1996; John & Ofek, 1995). Conversely, divested businesses lacking potential synergies that may increase their worth beyond their intrinsic value in the eyes of the likely acquirers are less likely to sell at a price above their intrinsic value, lowering the likelihood of increased returns for the divesting firm (Adegbesan, 2009; Barney, 1988; Makadok & Barney, 2001).

The second source of potential heterogeneity is how much of the value expected to be created by the acquirer of the divested business may be shared by the divesting firm (Barney, 1988; John & Ofek, 1995). On average, the divesting firm may receive a higher share of the value expected to be created by the acquirer when the value creation potential of the divested business is especially attractive from the acquirer's perspective, as well as when there are multiple potential acquirers with high potential synergies that may bid up the price, when the market conditions are favorable, or when the divesting firm requires motivation to sell (Barney, 1988; Bradley et al., 1988; Clubb & Stouraitis, 2002; Jensen & Ruback, 1983). Conversely, a divesting firm unable to attract buyers for its divested business, choosing to sell at a wrong time, facing financial distress, or otherwise pressured to divest may share less of any value potentially created by the acquirer, which may result in lower returns for the divesting firm (Adegbesan, 2009; Brauer & Wiersema, 2012; Clubb & Stouraitis, 2002; Easterwood, 1998; Humphery-Jenner et al., 2019).

Contemporary strategy work suggests that value creation and division dynamics within the triad of "an acquiring firm, divesting firm, and the [divested] business unit … could be used to generate novel insights into … divestiture performance," and notes that "conceptualizing divestitures in this way has significant performance implications" (Feldman, 2021, p. 9), including when corporations divest to PE firms specifically (Kaul et al., 2018). Thus, to investigate the differences in divesting firms' performance following divestitures to PE acquirers versus divestitures to corporate acquirers, this study focuses on the nature and the extent of value creation by the acquirers of the divested businesses, as well as how much of that value may be potentially shared by the divesting firm. Specifically, I study how the different sources of value creation for PE acquirers relative to corporate acquirers may influence how much value is potentially

---

[7]Feldman and Hernandez (2022) describe five broad synergy types: internal synergies, synergies related to market power, relational synergies, network synergies, and nonmarket synergies. I do not consider each different type of synergy separately, but instead focus on elaborating differences in value creation strategies of PE and corporate acquirers.

[8]"Intrinsic value" refers to the stand-alone economic value of a divested business as-is, roughly reflecting the fair value of its future cash flows exclusive of any additional synergies, complementarities, or improvements that may be acquirer-specific (Adegbesan, 2009; Barney, 1986; Brandenburger & Stuart Jr., 1996; Makadok & Barney, 2001). In most cases, the intrinsic value sets the floor for the price of the divested business, and represents the indifference point for the divesting firm. Nary and Kaul (2023) provide a detailed discussion of the value-based approach to understanding M&A performance and value creation and division specifically in the context of PE versus corporate acquirers (pp. 722–725).

created by the acquirer and shared[9] with the divesting firm, which should be reflected in the divesting firm's shareholder returns from the divestiture. The next two subsections explore these differences in acquirer value creation and their implications for the divesting firm in more detail.

2.2 | How do divestitures to PE acquirers differ from those to corporate acquirers?

PE firms are professional buyers, owners, and sellers of businesses, and increasingly some of the more prominent actors in the market for corporate assets, where they seem to create significant value. In fact, PE firms' average long-term returns may beat those of public firms, even when adjusting those returns for PE firms' typically high leverage (Cumming et al., 2007; Guo et al., 2011; Harris et al., 2014; Phalippou & Gottschalg, 2008). PE firms are especially active acquirers of divested businesses. Acquisitions of divestitures are the modal type of a PE transaction, accounting for 30% of all PE M&A activity and approximately 80% of all PE M&A activity involving publicly traded US firms, including many large transactions (Dean, 2011; Kaul et al., 2018; Preqin, 2018).

The sources of value creation for PE acquirers in the market for corporate assets may differ from those for corporate acquirers (Kaul et al., 2018; Nary & Kaul, 2023). Corporate acquirers tend to target synergy-based sources of value, likely resulting in at least partial integration of their own resources with those of the acquired business, which they typically plan to own in perpetuity. Even if left mostly independent, at a minimum, the acquired business will be subject to the acquirer's resource allocation decisions involving the acquirer's other businesses (Baker & Montgomery, 1994; Castellaneta & Gottschalg, 2016). In contrast, PE acquirers are temporary owners by design. They raise investment funds from outside investors, which are usually paid back within about 10 years. Thus, PE owners are incentivized by the return on investment, and plan to sell each owned business, whether through a sale or a public offering, within a few years of acquiring it, with the goal of receiving more money than they invested during the acquisition and throughout the holding period (Castellaneta & Gottschalg, 2016; Hege et al., 2018; Nary & Kaul, 2023). In turn, PE acquirers are less likely to integrate acquired businesses into their portfolios, and PE owners' resource allocation decisions aim to maximize the stand-alone, intrinsic value of each owned business before exiting it (Baker & Montgomery, 1994; Castellaneta & Gottschalg, 2016).

Prior work has described three potential sources of advantage for PE firms in M&As that may allow these firms to create value even as temporary owners likely lacking the synergy-based sources of value creation favored by corporate acquirers (Nary & Kaul, 2023). First, a PE firm may have a valuation advantage, seeking to acquire a business undervalued by other market actors and later sell it at a price closer to the target's true intrinsic value (Nary & Kaul, 2023). Second, a PE firm may have a governance advantage, as it may be able to improve the value of an acquired business during the ownership period—for example, by relying on PE-specific capabilities that may differ from those used by corporate acquirers (Kaul et al., 2018; Klein et al., 2013; Nary & Kaul, 2023). Third, a PE firm may have a timing advantage if it can strategically time its transactions—for example, targeting a business in a depressed market or

---

[9]Although it is generally outside the scope of the analysis in this study, in Online Appendix B, I explore whether the bargaining dynamics between the acquirer and the divesting firm further influence the divesting firm's returns.

industry, or when no other acquirers are interested, with the intention of selling it at profit when the conditions improve or a suitable acquirer appears (Gorbenko & Malenko, 2014; Nary & Kaul, 2023).

If PE acquirers and corporate acquirers rely on distinct value creation strategies (Bargeron et al., 2008; Gorbenko & Malenko, 2014; Hege et al., 2018; Kaul et al., 2018; Nary & Kaul, 2023), which may result in differences in the value they create when acquiring divestitures, what does that mean for divesting firms' performance when divesting to PE acquirers instead of corporate acquirers?

2.3 | Returns from divestitures to PE acquirers versus divestitures to corporate acquirers

The first, largely empirical question explored in this study is whether divesting firms' shareholder returns may differ when divesting businesses to PE acquirers versus corporate acquirers. If such performance differences do exist, the second question is whether these differences may be associated with the different sources of value creation for PE versus corporate acquirers. Conceptual work on ownership competence has suggested three broad sources of value creation for business owners, which may differ in their capabilities and competences (Foss et al., 2021). These parallel PE firms' potential sources of advantage in the market for corporate assets (Nary & Kaul, 2023). First is matching competence, or knowing which valuable combinations of resources to own, and it is comparable to PE firms' valuation advantage—that is, finding undervalued businesses. Second is governance competence, or knowing how to govern specific businesses, which is comparable to PE firms' governance advantage. Third is timing competence, or knowing when to own, acquire, and divest businesses, which is comparable to PE firms' timing advantage. To synthesize and simplify the model, I summarize these as acquirers' target selection strategies, ownership strategies, and transaction timing strategies. Next, I elaborate the potential differences in value creation associated with each of these strategies for PE acquirers versus corporate acquirers of divested businesses.

2.3.1 | Target selection strategies of PE acquirers of divested businesses versus corporate acquirers

PE acquirers are thought to search out targets and transaction structures that fit their sources of advantage, acquiring mismanaged, undervalued, capital-starved, or otherwise out-of-favor businesses, which tend to be distinct from the targets of corporate acquirers pursuing synergy-based sources of value (Castellaneta & Gottschalg, 2016; Kaul et al., 2018; Nary & Kaul, 2023). Thus, the differences in divesting firm performance may be correlated with nonrandom target selection and differences in the characteristics of divested businesses targeted by PE versus those targeted by corporate acquirers (Kaul et al., 2018). For example, if PE acquirers target divested businesses that are underperforming, less attractive, and with an apparently low value creation potential above intrinsic value, these transactions may draw less interest from other acquirers, and have lower prices. Collectively, these factors may lead to lower average shareholder returns for the divesting firms.

2.3.2 | Ownership strategies of PE acquirers of divested businesses versus those of corporate acquirers

There may also be differences in how and how much value is created by different acquirers during the ownership period. A corporate acquirer may pursue synergy-based sources of value by permanently recombining its own resources and capabilities with those of the divested business. Conversely, a PE acquirer may look to increase the stand-alone, intrinsic value of an acquired business by improving its efficiency, investing additional capital, resolving stakeholder conflicts, and realigning managerial incentives, ultimately resulting in better performance and a higher price when the PE owner sells that business in a few years (Kaul et al., 2018; Klein et al., 2013). Generally, prior work suggests that the "best synergistic [corporate] buyer" may create more ownership value from a divested business than an average PE acquirer (Nary & Kaul, 2023, p. 5), all else remaining equal. Thus, overall, PE firms' ownership strategies may be correlated with lower divesting firm shareholder returns if, on average, corporate acquirers of divested businesses are able to create more value from synergy-based sources. However, some PE acquisitions may also be motivated by synergy-based sources of value, much like those that attract corporate acquirers. This situation arises in add-on acquisitions by PE-owned firms, which have become more common in recent years (Hege et al., 2018; Nary & Kaul, 2023; Valkama et al., 2013). Moreover, if a synergistic corporate acquirer does not exist (e.g., for some distressed assets), then PE firms' ownership may create the most value for the divested businesses. Thus, the ultimate effect of PE ownership strategies on divesting firms' shareholder returns may depend on the exact sources and nature of ownership value creation of specific PE acquirers relative to potential corporate acquirers.

2.3.3 | Transaction timing strategies of PE acquirers of divested businesses versus those of corporate acquirers

In timing their transactions, on average, corporate acquirers and divesting firms may have similar considerations. Corporations are more likely to acquire businesses not only when the right target is available, but also when the acquirers have slack resources, have absorptive capacity, and are not facing significant resource constraints or challenges; conversely, corporations that are pressured, underperforming, resource-constrained, or changing strategic direction are more likely to divest (Anand & Singh, 1997; Bergh, 1997; Iyer & Miller, 2008; Penrose, 1958; Shimizu & Hitt, 2005). By comparison, PE acquirers may be more flexible and strategic with the timing of their transactions, as they may have access to investor capital that can be deployed if the right opportunity arises, and they may be less dependent on the state of specific industries or public markets when making acquisitions (Nary & Kaul, 2023). PE acquirers may also engage in strategic brokerage when a seller is distressed or pressured, when a synergistic corporate acquirer is unable to acquire a business when it becomes available, or when acquiring distressed assets opportunistically to resell at a profit later (Nary & Kaul, 2023). If a PE acquirer uses timing strategies, it may imply that the best synergistic buyer is not available, and may correlate with lower value creation, resulting in lower divesting firm returns.

2.3.4 | Divesting firms' returns and value created by PE acquirers versus corporate acquirers

Given that multiple explanatory mechanisms[10] may work separately or potentially interact in increasing or decreasing the acquirer's value created and the divesting firm's share of that value and its resulting returns, I make no specific predictions regarding the precise effect of an acquirer being a PE firm. Instead, this research takes an abductive, exploratory approach to compare and, where possible, isolate and study these value creation mechanisms. The study begins by empirically investigating whether there are performance differences when divesting to a PE acquirer versus a corporate acquirer. It then explores which of the possible explanations for the outcomes—that is, differences in acquirer value creation due to differences in target selection strategies, ownership strategies, and transaction timing strategies of PE acquirers versus corporate acquirers—are most consistent with the empirical observations.[11] Table 1 summarizes the theoretical mechanisms.

3 | DATA AND METHODS

The core sample for this study consists of 1055 businesses divested by 308 publicly traded US manufacturing firms (SIC 2000–3999)[12] over a period of 14 years (1997–2010) and is comparable to the samples used in other studies of PE (Kaul et al., 2018). The sample, used for the first of the two-stage models to control for bias due to sampling on a divestiture includes all 982 publicly traded US manufacturing firms (SIC 2000–3999) present in the *Compustat* database during analysis.

To measure divesting firms' performance, in line with prior work (Aktas et al., 2022; Feldman et al., 2016, 2019), I use the 3-day $(-1, +1)$ cumulative abnormal return (CAR) around the day of the divestiture announcement, calculated using an initial estimation period of 250 trading days, a 20-day gap before the observation window, and market return on a value-weighted index (Fama et al., 1969; MacKinlay, 1997; Strong, 1992). Results are robust to

---

[10]How value is shared between a PE acquirer and a corporate divesting firm is not always clear. PE firms number in the thousands, and are always searching for the next target. At least some of their value creation strategies may be common and generic among PE firms. Moreover, multiple PE bidders may engage in bidding competition, increasing the divesting firm's share of value and returns (Hege et al., 2018; Nary & Kaul, 2021). Even so, PE firms may persistently generate positive long-term returns, which would be unlikely if the returns from their deals were routinely bid away in competitive bidding (Cumming et al., 2007; Ghai et al., 2014; Harris et al., 2014; Hoskisson et al., 2013; Phalippou & Gottschalg, 2008). How might PE firms avoid competition and bidding away returns? There may be less direct competition among PE firms if markets provide enough opportunities for all PE firms, for example, or if some PE firms specialize in either distinct strategies or specific industries. A precise answer to this question is outside the scope of this paper. Instead, in the current study, I assume that value division when divesting to PE firms is consistent across deals and thus subsumed into differences between PE acquirers' and corporate acquirers' value creation strategies.

[11]Online Appendix B explores the potential effects of bargaining power differences between the divesting firm and the acquirer on the divesting firm's performance, but finds little evidence of their importance.

[12]Although industry classification schemes and patterns of M&A activity vary over time, manufacturing has consistently been the top sector for PE buyout activity, accounting for at least 22% of all PE buyout transactions, per Preqin (2018).

TABLE 1 Summary of theorized mechanisms affecting divesting firms' performance.

	Mechanism	Theoretical basis	Corporate acquirer	PE acquirer	PE value creation difference
Value creation sources and differences	Target Selection Strategies	Foss et al., 2021: Matching competence—knowing what to own Nary & Kaul, 2023: PE valuation advantage—PE as intelligent investor	Corporate acquirers may target divested businesses perceived as most complementary to their existing resources and capabilities and plan to permanently integrate them	PE acquirers may generally target undervalued divested businesses that will generate returns when kept as stand-alone entities and exited within a reasonably short period of time (3–6 years)	Relative to the strategies of corporate acquirers, PE target selection strategies may result in lower value creation, and lower returns to the divesting firm
	Ownership strategies	Foss et al., 2021: Governance competence—knowing how to own Nary & Kaul, 2023: PE governance advantage—PE as professional owners	Corporate acquirers may aim to create operational value through synergy-based sources of value by combining their own resources and capabilities with those of the acquired business	PE acquirers may aim to create operational value by improving efficiencies, realigning incentives, providing patient capital, and changing stakeholder relations, unless the acquirer is a PE-owned firm with its own potential synergies	Relative to the strategies of corporate acquirers, PE ownership strategies may result in lower value creation and lower returns, unless a PE-owned firm with synergies acquires or if no corporate acquirer, present or future, can create synergy-based value
	Transaction timing strategies	Foss et al., 2021: Timing competence—knowing when to own Nary & Kaul, 2023: PE timing advantage—PE as strategic brokers	On average, corporate acquirers and divesting corporations should have similar timing competence when buying or selling businesses, and are often subject to similar internal and external factors, from their own performance to market cycles	On average, PE acquirers may be less dependent on market cycles, industry trends, or external evaluation of strategies, and PE may buy businesses with the intent to sell to a better buyer in the future if no such buyer is available or willing to buy today	Relative to the strategies of corporate acquirers, PE transaction timing strategies may result in lower value creation, and lower returns if the timing is such that no best potential acquirer with synergies is currently available, but may appear later

alternative CAR windows and specifications. *PE acquirer* is coded as 1 for a PE acquirer and 0 for a corporate acquirer.[13]

The analysis includes control variables to account for the potentially confounding variables and factors that may influence either the selection or the outcomes of divestitures. At the divesting firm level, because it is important for the core analysis to hold the characteristics of the divesting firm constant, the analysis accounts for the size of the divesting firm, measured as the log of its annual revenues; its level of diversification, calculated as 1 minus the Herfindahl index of the divesting firm's sales across its business segments; its profitability, measured as the ratio of its operating income to revenues; its capital expenditure ratio; its degree of financial leverage, measured as the debt-to-equity ratio; and its R&D intensity, measured as the ratio of R&D expenses to revenues (Kaul et al., 2018). Other control variables include the divesting firm's corporate development experience, such as its prior acquisition, divestiture, and PE divestiture experience, measured as the number of each of these types of transactions completed in the 5 years prior to the focal transaction. This reflects the importance of transaction experience and accounts for potential indirect experience spillover effects (Bingham et al., 2015; Zollo & Reuer, 2010). Another control variable is the divesting firm's accumulated goodwill, which may be related to its past acquisitions and divestitures as well as to its future M&A motives (Rabier, 2017). I also control for the divesting firm's executive and CEO long-term compensation, the CEO's percentage of share ownership, and CEO tenure, because these factors may correlate with strategic choices made by the divesting firm and have been shown to affect firm-level actions and outcomes in prior work (Feldman, 2014; Kaul et al., 2018; Maksimovic & Phillips, 2001; Markides, 1992; Walters et al., 2007).

At the divestiture level, I control for whether the divested business is related to the divesting firm's core business, because noncore businesses are both more likely to be divested and more likely to be acquired by PE firms (Bergh et al., 2008; Kaul et al., 2018). All measures of relatedness are calculated at the two-digit SIC level, but the results are robust to alternative (three- and four-digit) SIC-based measures.[14] The main analysis also controls for potential incentive misalignment as the proportional difference between the CEO's and divisional executives' long-term compensation, and for potential R&D underinvestment at the business level relative to the industry, as these factors have also been correlated with the choice to divest in general, or to divest to PE firms specifically (Kaul et al., 2018). To account for acquisition trends in the divested business's industry, I include the number of yearly M&A transactions. I also control for whether the divestiture is a cash deal or a large transaction ($500 million or more), and whether the acquirer is experienced, as all of these factors may correlate with transaction-level performance (Bradley et al., 1988; Fishman, 1989; Kusewitt Jr., 1985; Loughran & Vijh, 1997; Ruback, 1983). Likewise, I control for whether the divesting firm retained a financial advisor for each divestiture, because financial advisors may influence the outcome of the transaction (Bao & Edmans, 2011; Golubov et al., 2012). All control variables were lagged by a year. Robust standard errors were clustered at the divesting firm level, and year effects were included in all models. Table 2 describes the variables and data sources, Table 3 provides summary statistics at

---

[13]To distinguish PE firms from other acquirers, I manually checked every acquirer's ultimate parent against PE data compiled from combined *Pitchbook*, *Preqin*, and *PrivCo* data. In line with prior work, management or shareholder buyouts, spinoffs, minority transactions, and share buybacks are excluded from the study analysis (Kaul et al., 2018).

[14]To the limited extent possible with a smaller subsample, the Bryce–Winter index (BWI) is employed as a robustness check to measure relatedness (Bryce & Winter, 2009); the findings hold in this alternative analysis. This is done in a subsample, because the BWI index measures relatedness between manufacturing companies; thus, nonmanufacturing divested businesses and nonmanufacturing acquirer firms were excluded from the analysis.

TABLE 2 Variables and data sources.

Variable	Description	Source
Cumulative abnormal return (−1, 1)	Three day (−1, 1) CAR around the day of divestiture announcement using value-weighted index returns	Center for Research in Security Prices (CRSP)
PE acquirer	Whether the acquirer of the divested business is a buyout private equity firm (binary)	SDC Platinum, Preqin
Direct PE acquirer	Whether the acquirer of the divested business is a buyout private equity firm and acquiring the business directly (binary)	SDC Platinum, Preqin
Indirect PE acquirer	Whether the acquirer of the divested business is a buyout private equity firm and acquiring the business as an add-on acquisition by a PE-owned portfolio company (binary)	SDC Platinum, Preqin
Parent diversification	1 minus the Herfindahl index of the divesting firm's sales across business segments	Compustat
Parent size	Divesting firm's annual revenues, in millions of dollars (logged)	Compustat
Parent profitability	Ratio of the divesting firm's operating profit to its total revenues	Compustat
Parent leverage	Ratio of the divesting firm's debt to its equity	Compustat
Parent R&D intensity	Ratio of the divesting firm's R&D expenditures to its total revenues	Compustat
Parent CapEx intensity	Ratio of the divesting firm's capital expenditures to its total revenues	Compustat
Parent accumulated goodwill	Divesting firm's total accumulated goodwill, in millions of dollars (logged)	Compustat
Parent acquisition experience	Total number of acquisitions by the divesting firm over the previous 5 years	SDC Platinum
Parent divestiture experience	Total number of divestitures by the divesting firm over the previous 5 years	SDC Platinum
Parent PE experience	Total number of transactions with buyout PE counterparties by the divesting firm over the previous 5 years	SDC Platinum, Preqin
Parent CEO tenure	Total tenure of the current CEO at the divesting firm in years	Execucomp
Parent CEO percentage shares owned	Ratio of shares owned by CEO to the total number of outstanding shares	Execucomp
Parent CEO LT comp. ratio	Averaged annual ratio of divesting-firm CEO's long-term incentive plans and stock options to total compensation	Execucomp
Parent executive LT comp. ratio	Averaged annual ratio of divesting-firm top management team's long-term incentive plans and stock options to total compensation	Execucomp
		Execucomp

TABLE 2 (Continued)

Variable	Description	Source
Parent CEO/exec LTC diff. prop	Difference between the annual ratio of the CEO and the top management team's LTC as the ratio of the difference between the two over the CEO LTC compensation	
Divested unit a noncore unit	Whether the two-digit SIC codes of the divesting firm and the divested business are different (binary)	SDC Platinum, Compustat
Divested unit industry acquisition activity	Number of total acquisitions in the industry of the divested unit at the two-digit SIC level	SDC Platinum
Divested unit sale involved financial advisor	Whether the divesting firm hired a financial advisor for this divestiture (binary)	SDC Platinum
Divested unit industry R&D intensity higher	Whether the divested business industry's average R&D intensity is higher than the divesting firm's (binary)	Compustat
Divestiture is large	Whether the deal value of the divestiture was disclosed and exceeded $500 million (binary)	SDC Platinum
Divestiture buyer experienced	Whether the acquirer of the divested business has more acquisition experience than an average acquirer (binary)	SDC Platinum
Divestiture is a cash deal	Whether the consideration in the transaction is all cash (binary)	SDC Platinum

the firm and transaction levels, and Table 4 lists the correlations. Some of the correlations were high, yet the median variance inflation factor (VIF) was 1.53 and no individual VIF was greater than 5.

4 | ANALYSIS

4.1 | Descriptive analysis

There are 932 divestitures to corporate acquirers and 123 divestitures (11.6%) to PE acquirers by 308 divesting firms in the sample, which included 93 unique PE acquirers and 835 unique corporate acquirers. The most active acquirers and divesting firms tend to be prominent firms. For example, DuPont is both a top divesting firm and a top corporate acquirer. Dow Chemical, Motorola, Johnson & Johnson, Proctor & Gamble, and Honeywell are some of the other top divesting firms in the data set, while General Electric, Emerson, and Solectron are the top corporate acquirers. Sun Capital Partners, Gores Group, Platinum Equity, Arsenal Capital Partners, and Onex Corporation are the top five PE acquirers, and the data set includes other well-known PE firms, including Bain Capital, Carlyle Group, Kohlberg Kravis Roberts & Co., and Cerberus Capital Management.

TABLE 3 Summary statistics.

	Transaction level					Firm-year level				
Variable	Mean	Median	St. dev.	Min	Max	Mean	Median	St. dev.	Min	Max
Cumulative abnormal return (−1, 1)	0.00	0.00	0.05	−0.36	0.45					
PE acquirer	0.12	0.00	0.32	0.00	1.00					
Direct PE acquirer	0.08	0.00	0.27	0.00	1.00					
Indirect PE acquirer	0.04	0.00	0.19	0.00	1.00					
Parent diversification	0.47	0.56	0.28	0.00	0.87	0.30	0.31	0.28	0.00	1.00
Parent size	8.39	8.45	1.66	0.90	12.00	7.04	6.99	1.63	−2.72	12.04
Parent profitability	0.14	0.14	0.18	−1.84	0.46	0.11	0.14	0.26	−1.84	0.46
Parent leverage	1.82	1.38	2.74	−12.48	18.47	1.36	0.97	2.75	−12.48	18.47
Parent R&D intensity	0.08	0.04	0.19	0.00	2.60	0.10	0.02	0.30	0.00	2.60
Parent CapEx intensity	0.21	0.18	0.14	0.03	1.43	0.26	0.19	0.23	0.03	1.43
Parent accumulated goodwill	5.07	5.91	3.25	−0.80	11.00	3.50	3.97	2.91	−2.40	11.00
Parent acquisition experience	12.10	8.00	11.46	0.00	70.00	4.91	2.00	7.71	0.00	101.00
Parent divestiture experience	6.82	4.00	8.19	0.00	46.00	1.54	0.00	3.83	0.00	46.00
Parent PE experience	0.31	0.00	0.69	0.00	5.00	0.08	0.00	0.37	0.00	5.00
Parent CEO tenure	4.88	3.00	5.44	0.00	33.00	6.60	4.00	6.95	0.00	33.00
Parent CEO percentage shares owned	0.17	0.00	0.87	0.00	11.83	0.60	0.00	2.66	0.00	32.41
Parent CEO LT comp. ratio	0.65	0.70	0.23	0.00	1.00	0.55	0.61	0.28	0.00	1.00
Parent executive LT comp. ratio	0.63	0.68	0.20	0.01	0.98	0.54	0.57	0.23	0.00	0.99
Parent CEO/exec LTC diff. prop	−0.13	−0.06	1.17	−23.92	1.00	−0.18	−0.05	2.94	−146.25	1.00
Divested unit a noncore unit	0.45	0.00	0.50	0.00	1.00					
Divested unit industry acquisition activity	103.24	82.00	111.87	3.00	772.00					
Divested unit sale involved financial advisor	0.34	0.00	0.47	0.00	1.00					
Divested unit industry R&D intensity higher	0.75	1.00	0.44	0.00	1.00					
Divestiture is large	0.04	0.00	0.20	0.00	1.00					
Divestiture buyer experienced	0.28	0.00	0.45	0.00	1.00					
Divestiture is a cash deal	0.28	0.00	0.45	0.00	1.00					

TABLE 4 Correlations.

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Cumulative abnormal return (−1, 1)	1.00												
2	PE acquirer	−0.06	1.00											
3	Direct PE acquirer	−0.05	0.80	1.00										
4	Indirect PE acquirer	−0.03	0.55	−0.06	1.00									
5	Parent diversification	−0.05	0.08	0.07	0.03	1.00								
6	Parent size	−0.07	0.07	0.04	0.05	0.47	1.00							
7	Parent profitability	0.00	0.01	0.00	0.02	0.08	0.37	1.00						
8	Parent leverage	0.04	−0.03	0.00	−0.06	0.08	0.10	−0.05	1.00					
9	Parent R&D intensity	−0.05	−0.06	−0.05	−0.03	−0.25	−0.29	−0.69	−0.05	1.00				
10	Parent CapEx intensity	−0.01	−0.03	−0.04	0.01	−0.21	−0.11	0.01	0.00	0.16	1.00			
11	Parent accumulated goodwill	−0.01	0.12	0.09	0.08	0.40	0.48	0.21	0.04	−0.14	−0.20	1.00		
12	Parent acquisition experience	−0.07	0.03	0.02	0.01	0.45	0.54	0.11	0.03	−0.11	−0.06	0.37	1.00	
13	Parent divestiture experience	−0.09	−0.01	0.02	−0.04	0.42	0.62	0.13	0.06	−0.08	−0.13	0.24	0.49	1.00
14	Parent PE experience	0.00	0.08	0.07	0.04	0.25	0.30	0.01	−0.01	−0.09	−0.13	0.26	0.17	0.34
15	Parent CEO tenure	0.01	−0.01	−0.02	0.01	−0.05	−0.16	−0.09	−0.03	0.09	0.04	−0.01	−0.05	−0.20
16	Parent CEO percentage shares owned	0.08	−0.02	0.00	−0.02	−0.10	−0.17	−0.03	0.00	0.00	−0.01	−0.04	−0.11	−0.12
17	Parent CEO LT comp. ratio	−0.06	0.04	0.01	0.04	0.08	0.25	0.06	0.02	0.10	0.09	0.18	0.16	0.20
18	Parent executive LT comp. ratio	−0.07	−0.01	−0.03	0.02	0.04	0.31	0.03	−0.02	0.14	0.12	0.15	0.17	0.21
19	Parent CEO/exec LTC diff. prop	0.00	0.00	−0.01	0.00	−0.08	−0.03	−0.04	0.01	0.02	0.00	−0.04	−0.07	−0.03
20	Divested unit a noncore unit	0.04	0.08	0.09	0.02	0.17	0.04	−0.09	0.01	−0.03	0.01	0.04	0.15	0.01
21	Divested unit industry acquisition activity	−0.04	−0.03	0.01	−0.05	−0.02	0.02	−0.06	−0.09	0.07	0.11	−0.09	0.04	0.03
22	Divested unit sale involved financial advisor	0.08	0.17	0.20	0.01	−0.01	−0.03	−0.01	0.04	−0.03	0.00	−0.02	−0.06	0.01
23	Divested unit industry R&D intensity higher	−0.02	0.00	0.02	−0.02	0.18	0.11	0.13	0.03	−0.31	−0.08	0.10	0.13	0.10

TABLE 4 (Continued)

		1	2	3	4	5	6	7	8	9	10	11	12	13
24	Divestiture is large	0.11	0.04	0.06	−0.02	0.00	0.10	0.04	0.08	−0.02	0.01	0.04	0.00	0.08
25	Divestiture buyer experienced	−0.04	0.19	0.12	0.14	0.10	0.09	−0.02	0.04	−0.05	0.01	0.04	0.08	0.07
26	Divestiture is a cash deal	0.07	0.04	0.06	−0.02	−0.08	−0.11	−0.04	−0.02	0.04	0.02	0.04	−0.07	−0.05

		14	15	16	17	18	19	20	21	22	23	24	25	26
14	Parent PE experience	1.00												
15	Parent CEO tenure	−0.06	1.00											
16	Parent CEO percentage shares owned	−0.06	0.24	1.00										
17	Parent CEO LT comp. ratio	0.11	−0.12	−0.05	1.00									
18	Parent executive LT comp. ratio	0.15	−0.09	0.01	0.67	1.00								
19	Parent CEO/Exec LTC diff. prop	−0.02	−0.07	0.04	−0.09	0.28	1.00							
20	Divested unit a noncore unit	0.07	0.02	−0.02	−0.06	−0.05	−0.05	1.00						
21	Divested unit industry acquisition activity	0.00	−0.02	0.00	0.06	0.06	−0.04	0.22	1.00					
22	Divested unit sale involved financial advisor	−0.01	−0.07	−0.02	−0.02	−0.06	0.02	0.06	−0.03	1.00				
23	Divested unit industry R&D intensity higher	0.11	−0.06	−0.05	−0.09	−0.11	0.00	−0.10	0.11	−0.03	1.00			
24	Divestiture is large	0.00	−0.06	−0.04	0.02	0.02	0.01	0.03	−0.05	0.26	−0.06	1.00		
25	Divestiture buyer experienced	0.01	−0.04	−0.05	0.00	−0.02	−0.04	0.06	0.02	0.13	0.02	0.17	1.00	
26	Divestiture is a cash deal	0.01	0.06	0.08	0.00	−0.01	0.03	−0.02	−0.06	0.26	0.00	0.23	0.06	1.00

The average returns from all divestitures as CARs over the three trading days (−1, +1) surrounding the transaction announcement are positive, with a mean of 0.004, or 0.40%. This is in line with some prior work indicating that on average, divestitures correlate with positive returns for the divesting firm (Feldman et al., 2019; Lee & Madhavan, 2010; Maksimovic & Phillips, 2001). The mean CAR for divestitures to PE acquirers is −0.045, or negative 0.45%; the mean CAR for corporate acquirers is 0.054, or 0.54%. The differences in CARs for divestitures to PE acquirers versus corporate acquirers are visible when raw daily abnormal returns (ARs) are plotted over time, as shown in Figure 1a,b. On average, divestitures to corporate acquirers appear to correlate with a positive market reaction following the announcement, whereas divestitures to PE acquirers appear to correlate with a negative or, at best, neutral reaction to the announcement. Although daily ARs for divestitures to PE acquirers appear to trend down prior to the divestiture, this underperformance is not different from zero at the 95% confidence level. Moreover, when 95% confidence levels are considered, there is no difference in divesting firms' ARs when divesting to PE versus corporate acquirers prior to the announcement, although differences are apparent in the days following the announcement. Shareholder returns from divestitures to PE v acquirers versus corporate acquirers also differ at the extremes. The lowest decile of all divestitures ranked by CAR, where these returns are negative 4.0% or lower, contains 9.5% of divestitures to corporate acquirers and 16.3% of divestitures to PE acquirers. The highest decile of divestitures ranked by CAR includes transactions with CARs of 5.3% or higher; it contains 11.6% of divestitures to corporate acquirers and only 6.5% of divestitures to PE acquirers. Thus, even a naïve descriptive analysis suggests there are differences in divesting firms' performance.
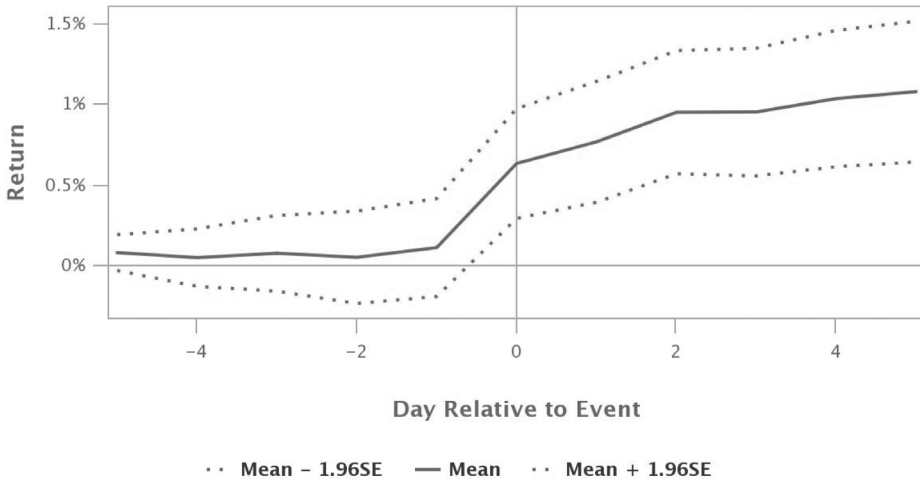
4.2 | Do the divesting firm's shareholder returns differ when divesting a business to a PE acquirer versus a corporate acquirer?

To mitigate concerns about firms' endogenous choice of strategies given their expectations of the outcome and the resulting bias from sampling on divesting (Shaver, 1998; Smart & Waldfogel, 1994), the initial regression analysis includes a two-stage Heckman selection adjustment procedure. In the first stage, a probit regression is used to predict the likelihood of a firm undertaking any divestiture as a function of firm- and environment-level predictors (Berry, 2010; Feldman, 2014; Hoskisson et al., 1994; Kaul et al., 2018), using a panel of all 982 public US manufacturing firms listed in the *Compustat* database for the period of the analysis, whether they engage in divestitures or not.[15] The annual change in the focal firm's core industry average diversification, which excludes the focal firm itself, is used as an exclusion restriction in the first stage. This variable is constructed by averaging the inverse *Herfindahl–Hirschman Index*-based diversification measure for each industry segment by SIC code, excluding the focal firm, and taking the difference of that variable with one from the prior year. On average, a firm in an industry where its peers trend to diversify more is less likely to divest a business. Indeed, this variable negatively predicts the likelihood of a divestiture, but should not

---

[15]Because this analysis predicts divestitures by all U.S. manufacturing firms in the first stage, the characteristics of the divested businesses cannot be included in the first stage—as these are ex post choices, and as many firms do not divest any businesses in a given year, whereas others divest multiple businesses. The only alternative specification to include divestiture characteristics in the first stage would need to include data on all assets and businesses that a specific firm could potentially divest in any given year; thus, it would require data not available even for public firms.
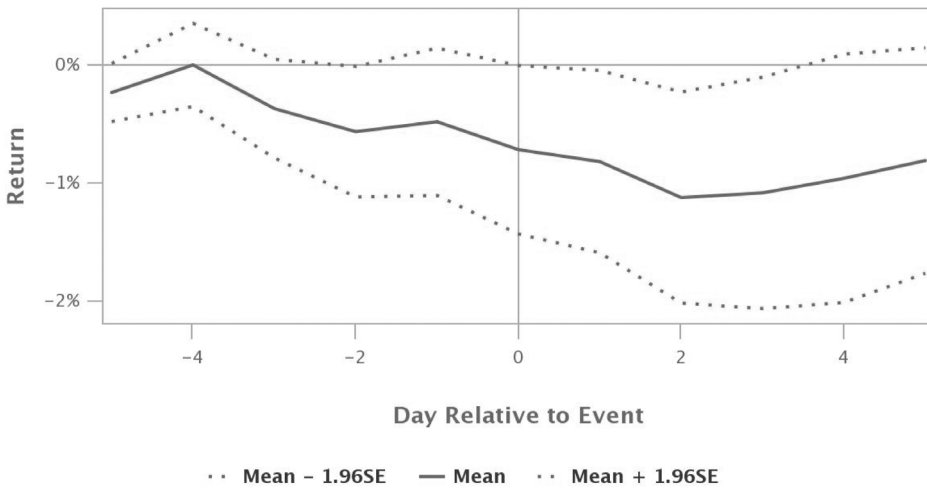
(a)

(b)

FIGURE 1 (a) Cumulative abnormal returns from divestitures to corporate acquirers. (b) Cumulative abnormal returns from divestitures to private equity (PE) acquirers.

correlate with its outcome (e.g., the transaction performance of a specific divestiture or acquirer type). The predicted divestiture likelihood is then used to calculate the inverse Mills ratio. Finally, the divesting firm's returns are estimated as CARs in the second-stage OLS regression

that includes the inverse Mills ratio as a selection adjustment together with adjusted standard errors to correct for potential correlation of first- and second-stage error terms[16] (Certo et al., 2016; Hamilton & Nickerson, 2003; Heckman, 1979; Wolfolds & Siegel, 2019).

Table 5 shows the results of the core analysis. Model 1 is the first-stage probit regression, which estimates firms' choices to divest. The change in the focal firm's industry average level of diversification negatively predicts divesting ($\beta = -.026$, $p = .000$). Firms that are larger or more diversified, those with higher R&D expenditures, and those more experienced in divesting or acquiring are all more likely to divest. Firms with higher capital expenditures are less likely to divest.

Models 2 and 3 (Table 5) show the main results of the second-stage OLS CAR regressions. Model 2 shows the second-stage specification with controls only. Model 3 introduces the *PE acquirer* variable. The β coefficient of $-.012$ ($p = .021$) on *PE acquirer* can be interpreted as a negative 1.2% difference in the 3-day abnormal shareholder returns (CAR -1, 1) following the divestiture announcement when the acquirer is a PE firm rather than a corporation. The abnormal shareholder returns in Model 3 correlate with whether the divesting firm has prior PE experience ($\beta = .006$, $p = .053$) or hires a financial advisor in a transaction ($\beta = .007$, $p = .073$), and with large divestitures ($\beta = .030$, $p = .004$). The β coefficient on the inverse Mills ratio is .032 ($p = .189$), suggesting that potential bias from sampling on divesting may not be influencing the divesting firms' returns.

Model 4 replicates Model 3, adding a control for an *unrelated corporate acquirer*. Because the acquirer types for each transaction are mutually exclusive treatments, their effects can be compared directly within the same OLS model. The β coefficient of $-.015$ ($p = .005$) on *PE acquirer* indicates a more negative return compared to the base treatment of a related corporate acquirer. The mean CAR for divesting to an unrelated corporate acquirer is also negative, with a β coefficient of $-.007$ ($p = .060$). The difference in returns from divestitures to an unrelated corporate acquirer compared to the base case of a related corporate acquirer is noteworthy, because it may support the earlier assertion that the more value that may be created for an acquirer, the better the divesting firm's performance may be. This relationship reflects that on average, a related acquirer may have greater potential synergies with the divested business than an unrelated acquirer does, and more value may be created to be shared between the counterparties. The results in Models 3 and 4 are organizationally significant. For example, a 1.2–1.5% decrease in the market capitalization of an S&P500 firm can exceed $50 million to 100 million for even the smallest constituents of the index.

I also investigate whether the negative effects of selling to PE acquirers vary proportionally and meaningfully with transaction size. In this analysis, I interact the *PE acquirer* variable with a binary variable equal to 1 if the disclosed value of a transaction is over $500 million, and 0 if the disclosed value is less than $500 million. The results are shown in Table 6. Although large divestitures lead to higher returns, the β coefficient of the interaction of $-.048$ ($p = .005$) is greater in magnitude, indicating that larger divestitures to PE acquirers correlate with more negative divesting firm returns.

This analysis answers the first research question. Divesting firms' average returns are lower when divesting to PE acquirers versus divesting to corporate acquirers. Which of the differences in PE value creation strategies versus those of corporate acquirers may explain these results?

---

[16]I show the results of the conventional Heckman (1979) two-step approach implemented with the *heckman* procedure in Stata 17. The results are robust when using Heckman MLE or GMM estimation implementations, as well as whether using conventionally calculated Heckman (1979) errors, cluster-robust errors, or bootstrapped standard errors.

TABLE 5 Main results.

	1	2	3	4	5	6	7	8
FF ind. diversification change (St. 1)	−0.026 [0.007] (.000)							
PE acquirer								
Direct PE acquirer			−0.012 [0.005] (.021)		−0.014 [0.006] (.021)		−0.015 [0.006] (.019)	−0.018 [0.006] (.006)
Indirect PE acquirer						−0.006 [0.008] (.493)	−0.007 [0.008] (.356)	−0.010 [0.008] (.200)
Unrelated corporate acquirer				−0.007 [0.003] (.060)				−0.007 [0.003] (.061)
Parent diversification	0.609 [0.093] (.000)	0.010 [0.015] (.511)	0.010 [0.015] (.489)	0.009 [0.014] (.519)	0.009 [0.015] (.525)	0.010 [0.015] (.500)	0.010 [0.015] (.508)	0.009 [0.015] (.538)
Parent size	0.097 [0.021] (.000)	0.002 [0.003] (.453)	0.003 [0.003] (.397)	0.002 [0.003] (.421)	0.002 [0.003] (.451)	0.002 [0.003] (.431)	0.002 [0.003] (.420)	0.002 [0.003] (.445)
Parent profitability	0.166 [0.168] (.323)	−0.004 [0.019] (.828)	−0.005 [0.018] (.765)	−0.009 [0.019] (.629)	−0.005 [0.018] (.762)	−0.004 [0.019] (.826)	−0.006 [0.018] (.757)	−0.009 [0.019] (.622)
Parent leverage	−0.010 [0.009] (.291)	0.001 [0.001] (.522)	0.000 [0.001] (.598)	0.000 [0.001] (.624)	0.001 [0.001] (.542)	0.001 [0.001] (.543)	0.000 [0.001] (.574)	0.000 [0.001] (.600)
Parent R&D intensity	0.425 [0.152] (.005)	−0.008 [0.019] (.673)	−0.009 [0.019] (.627)	−0.012 [0.019] (.539)	−0.010 [0.019] (.608)	−0.008 [0.019] (.679)	−0.010 [0.019] (.613)	−0.012 [0.019] (.527)
Parent CapEx intensity	−0.259 [0.112] (.020)	−0.006 [0.018] (.752)	−0.005 [0.018] (.760)	−0.005 [0.017] (.784)	−0.005 [0.018] (.768)	−0.006 [0.018] (.750)	−0.005 [0.018] (.765)	−0.005 [0.017] (.789)
Parent accumulated goodwill	0.013 [0.010] (.200)	0.001 [0.001] (.408)	0.001 [0.001] (.335)	0.001 [0.001] (.314)	0.001 [0.001] (.366)	0.001 [0.001] (.393)	0.001 [0.001] (.345)	0.001 [0.001] (.323)
Parent acquisition experience	0.013 [0.003] (.000)	0.000 [0.000] (.430)	0.000 [0.000] (.435)	0.000 [0.000] (.409)	0.000 [0.000] (.474)	0.000 [0.000] (.419)	0.000 [0.000] (.458)	0.000 [0.000] (.431)
Parent divestiture experience	0.054 [0.007] (.000)	0.000 [0.001] (.540)	0.000 [0.001] (.553)	0.000 [0.001] (.571)	0.000 [0.001] (.570)	0.000 [0.001] (.536)	0.000 [0.001] (.564)	0.000 [0.001] (.582)
Parent PE experience	0.132 [0.060] (.027)	0.005 [0.003] (.068)	0.006 [0.003] (.053)	0.006 [0.003] (.052)	0.006 [0.003] (.062)	0.006 [0.003] (.065)	0.006 [0.003] (.058)	0.006 [0.003] (.057)
Parent CEO tenure	−0.004 [0.003] (.232)	0.000 [0.000] (.520)	0.000 [0.000] (.515)	0.000 [0.000] (.503)	0.000 [0.000] (.522)	0.000 [0.000] (.517)	0.000 [0.000] (.518)	0.000 [0.000] (.506)

TABLE 5 (Continued)

	1	2	3	4	5	6	7	8
Parent CEO percentage shares owned	−0.013 [0.012] (.291)	0.003 [0.003] (.319)	0.003 [0.003] (.332)	0.003 [0.003] (.288)	0.003 [0.003] (.329)	0.003 [0.003] (.322)	0.003 [0.003] (.332)	0.003 [0.003] (.289)
Parent CEO LT comp. ratio	0.085 [0.115] (.461)	−0.003 [0.009] (.786)	−0.001 [0.009] (.925)	−0.001 [0.009] (.944)	−0.002 [0.009] (.851)	−0.002 [0.009] (.822)	−0.001 [0.009] (.902)	−0.001 [0.009] (.922)
Parent executive LT comp. ratio	0.180 [0.139] (.196)	−0.011 [0.012] (.377)	−0.012 [0.013] (.337)	−0.013 [0.013] (.310)	−0.012 [0.012] (.333)	−0.011 [0.012] (.377)	−0.012 [0.013] (.331)	−0.013 [0.013] (.304)
Parent CEO/exec LTC diff. prop	0.004 [0.008] (.606)	0.000 [0.001] (.866)	0.000 [0.001] (.975)	0.000 [0.001] (.845)	0.000 [0.001] (.924)	0.000 [0.001] (.891)	0.000 [0.001] (.962)	0.000 [0.001] (.832)
Divested unit a noncore unit		0.004 [0.004] (.272)	0.005 [0.004] (.217)	0.005 [0.004] (.186)	0.005 [0.004] (.218)	0.004 [0.004] (.268)	0.005 [0.004] (.212)	0.005 [0.004] (.182)
Divested unit industry acquisition activity		0.000 [0.000] (.534)	0.000 [0.000] (.474)	0.000 [0.000] (.387)	0.000 [0.000] (.523)	0.000 [0.000] (.508)	0.000 [0.000] (.489)	0.000 [0.000] (.400)
Divested unit sale involved financial advisor		0.006 [0.004] (.130)	0.007 [0.004] (.073)	0.007 [0.004] (.079)	0.007 [0.004] (.071)	0.006 [0.004] (.128)	0.007 [0.004] (.068)	0.007 [0.004] (.073)
Divested unit industry R&D intensity higher		−0.002 [0.005] (.683)	−0.002 [0.005] (.681)	−0.002 [0.005] (.669)	−0.002 [0.005] (.698)	−0.002 [0.005] (.677)	−0.002 [0.005] (.690)	−0.002 [0.005] (.678)
Divestiture is large		0.030 [0.010] (.004)	0.029 [0.010] (.004)	0.030 [0.010] (.004)	0.030 [0.010] (.004)	0.030 [0.010] (.005)	0.030 [0.010] (.004)	0.030 [0.010] (.004)
Divestiture buyer experienced		−0.007 [0.004] (.072)	−0.005 [0.004] (.175)	−0.005 [0.004] (.184)	−0.006 [0.004] (.118)	−0.007 [0.004] (.098)	−0.006 [0.004] (.166)	−0.005 [0.004] (.175)
Divestiture is a cash deal		0.003 [0.004] (.522)	0.002 [0.004] (.545)	0.002 [0.004] (.620)	0.003 [0.004] (.506)	0.002 [0.004] (.541)	0.003 [0.004] (.530)	0.002 [0.004] (.604)
Inverse Mills ratio		0.031 [0.024] (.198)	0.032 [0.024] (.185)	0.031 [0.024] (.189)	0.030 [0.024] (.210)	0.032 [0.024] (.192)	0.031 [0.024] (.199)	0.030 [0.024] (.204)
N	7991	1055	1055	1055	1055	1055	1055	1055
R^2 (log likelihood in Model 1)	−2850.879	.058	.063	.066	.063	.058	.064	.066

Note: Year effects included in all models. Robust standard errors in brackets. *p*-Values in parentheses.

TABLE 6 Divestiture size and divesting firm returns.

	Large divestiture (>$500 million disclosed deal value)	
	Model 1	Model 2
PE acquirer	−0.009 [0.006] (.088)	
Direct PE acquirer		−0.011 [0.006] (.096)
Indirect PE acquirer		−0.007 [0.008] (.417)
Large divestiture (>$500 million)	0.038 [0.011] (.001)	0.038 [0.011] (.001)
Large div. × PE acq.	−0.048 [0.017] (.005)	
Large div. × Direct PE acq.		−0.049 [0.018] (.007)
Large div. × Indirect PE acq.		−0.031 [0.014] (.027)
N	1055	1055
R^2	.0676	.0679

Note: All controls, including selection adjustment, and year effects included in all models. Robust standard errors in brackets. *p*-Values in parentheses.

4.3 | Are lower returns when divesting to PE acquirers linked to the PE firms' target selection strategies?

A divested business may attract specific acquirers due to its characteristics. For example, PE acquirers may target noncore, mismanaged businesses (Kaul et al., 2018). Thus, the match between the divested business and its acquirer may be nonrandom. This factor introduces another potential source of sampling bias[17] if PE acquirers systematically target divested businesses that are different from those targeted by corporate acquirers and such differences then affect the divesting firms' performance. To investigate whether this potentially nonrandom selection may explain the divesting firms' performance, the study considers the differences between 123 divestitures to PE acquirers and 932 divestitures to corporate acquirers (see Table A1 in Online Appendix A). On average, firms that divest businesses to PE firms are larger, more diversified, with more accumulated goodwill and experience, and divestitures to PE firms are more likely to be noncore businesses for the divesting firms—a finding in line with prior work on PE firms' target selection (Kaul et al., 2018).

Do these differences[18] influence the divesting firm's performance? To investigate this question, an experimental design was used in which the treated group includes divestitures to PE acquirers and the control group includes divestitures to corporate acquirers, and where the treatment outcome is the divesting firm's shareholder returns. The treatment effects were then explored by carefully matching the characteristics of the divesting firms and the divested businesses between the treatment and control groups. Two distinct matching methods were used for robustness.

---

[17]This source of sampling bias due to nonrandom acquirer–target (and divesting firm) match is distinct from the source of sampling bias due to the decision to divest mentioned earlier. Moreover, using matching allows for incorporating the characteristics of the divesting firm–divested business–acquirer triad, as suggested by prior work (Feldman, 2020, 2021).

[18]Note that I consider the characteristics of the divested business to include the characteristics of the divesting firm, as these are important and inseparable in the context of a divestiture transaction (Feldman, 2020, 2021; Kaul et al., 2018).

The first approach relies on the inverse probability-weighted regression adjustment (IPWRA) method of estimating treatment effects, where selection into the PE "treatment" and the effects of that treatment are co-estimated simultaneously (Imbens & Wooldridge, 2009). The outcome of the treatment (CAR) is estimated with a separately specified set of covariates simultaneously with selection into the treatment group, using propensity score-based inverse weights and control variables to address any additional imbalance when estimating treatment effects. The IPWRA approach has a double-robust property, such that only one of the two simultaneously estimated models needs to be specified correctly to estimate an unbiased effect (Imbens & Wooldridge, 2009; Słoczyński et al., 2022). To predict divesting to PE, I include a subset of controls describing the ex-ante characteristics of the divesting firm and the divested business. To estimate the treatment effects on the outcome, I use all other controls shown to be relevant to transaction performance from the OLS analysis.[19] I use *teffects ipwra* command in *Stata 17* to run this analysis.

A second method, coarsened exact matching (CEM), is also used given that the IPWRA approach, while generally thought to be efficient and consistent, has its limitations, such as reliance on observation overlap and using inverse weights to generate unobserved counterfactuals. CEM takes a different approach to balancing control and treatment groups by matching existing control and treatment cases exactly on coarsened data to create weights, which are then used on matched, uncoarsened data (Blackwell et al., 2009). CEM performs better with a large number of observations, especially in cases where the inclusion of many characteristics results in a large number of potential strata, as is the case here. Neither method is perfect, but using both approaches for robustness may help better assess the magnitude and stability of treatment effects of divesting to a PE acquirer. The *CEM* module for *Stata* was used to perform the second part of the analysis (Blackwell et al., 2009). Summarized matching results are reported next; the complete details of both IPWRA and CEM analyses and results, as well as complete balance and overlap diagnostics, are shared in Online Appendix A. The results of the matching models are summarized in Table 7.

As shown in Models 1 and 2 in Table 7, when accounting for potentially nonrandom selection of divested businesses by acquirers, and using the IPWRA specification, the divesting firms' shareholder returns are still notably lower when divesting to PE rather than to corporate acquirers. The treatment coefficient is negative (−0.011 or 1.1%, $p = .044$). The results are consistent when using CEM matching (−0.015 or 1.6%, $p = .011$). The sum of this evidence suggests that the lower divesting firm returns when divesting to a PE acquirer are not fully explained by PE firms' target selection strategies or by differences in the businesses acquired by PE versus corporate acquirers.

4.4 | Are lower returns when divesting to PE acquirers linked to the PE firms' ownership strategies?

Having established that divestitures to PE acquirers may lead to lower overall returns for the divesting firms even when accounting for nonrandom target selection, another question arises: Can the lower returns be attributed to the likelihood that divestitures to PE acquirers will create less total ownership value than the divestitures to corporate acquirers, which tend to target synergy-based sources of value? As already shown, divestitures to unrelated corporate acquirers

---

[19]See Online Appendix A for complete details of both matching analyses, including all variables and specifications.

TABLE 7 Nonrandom target selection and matching results.

	Model 1	Model 2
PE treatment effect (IPWRA)	−0.011 [0.006] (.044)	
PE treatment effect (CEM)		−0.015 [0.006] (.011)
Model	IPWRA	CEM
N	1055	301
	Model 3	**Model 4**
Direct PE treatment effect (IPWRA)	−0.015 [0.007] (.037)	
Direct PE treatment effect (CEM)		−0.014 [0.008] (.076)
Model	IPWRA	CEM
N	1055	308
	Model 5	**Model 6**
Indirect PE treatment effect (IPWRA)	−0.006 [0.008] (.443)	
Indirect PE treatment effect (CEM)		−0.014 [0.008] (.076)
Model	IPWRA	CEM
N	1055	269

Note: All controls included. Robust standard errors in brackets. *p*-Values in parentheses. See Online Appendix A for details.

may underperform divestitures to related corporate acquirers. More synergy-based value may be created in the latter case—suggesting that ownership value creation may matter in this context. Yet the sources of ownership value creation in PE acquisitions of divested businesses may also be heterogeneous, and not all PE acquisitions are alike. When a PE firm acquires a business directly, it may be intending to rely on generic PE-specific ownership value creation capabilities, and aiming to maximize the stand-alone value of the acquired business. However, acquirer firms owned by PE firms (henceforth "PE-owned firms") may target synergy-based sources of value just like corporate acquirers, even planning to recombine the acquired business with their own complementary resources (Hege et al., 2018; Nary & Kaul, 2023; Valkama et al., 2013). Businesses acquired by PE-owned firms are more likely to be integrated permanently with the new owners, and to remain so even when the PE owners exit their investments in those firms. Thus, on average, more synergy-based value may be created in such add-on acquisitions by PE-owned firms compared to direct PE acquisitions, and this distinction may help elaborate the effects of PE ownership value creation mechanisms on divesting firms' performance (Hege et al., 2018; Nary & Kaul, 2023; Valkama et al., 2013).

Returning to Table 5, Models 5–8 introduce two independent binary variables that substitute for the *PE acquirer* variable: *direct PE acquirer* (*DPE*), which indicates a direct acquisition by a PE firm, and *indirect PE acquirer* (*IDPE*), which indicates an add-on acquisition by a PE-owned firm rather than a direct acquisition by a PE firm itself. Models 5 and 6 introduce these variables separately, while Models 7 and 8 include both direct and indirect PE acquirers, as well as unrelated corporate acquirers in Model 8, allowing to compare the treatment effects for these mutually exclusive treatments within the same OLS model. In Model 7, the CAR of divestitures directly to PE acquirers is still lower, negative, and organizationally significant (−0.015, or −1.5% impact to the CAR; *p* = .019), while the CAR of divestitures to PE-owned firms is −0.007 (*p* = .356). Notably, the CAR of divestitures to unrelated corporate acquirers is still negative

($\beta = -.006$, $p = .078$) in Model 8. The strong negative effects of divesting to direct PE acquirers are persistent, but no such effect is noted with acquisitions of divested businesses by PE-owned firms. Thus, these results suggest one potential reason why divestitures to PE acquirers might correlate with lower divesting firm returns. Direct acquisitions by PE acquirers, in which less value may be created because of lack of synergies, may correlate with lower divesting firm shareholder returns than acquisitions where synergy-based value is more likely to be created—that is both add-on acquisitions by PE-owned firms and acquisitions by corporate acquirers. Finally, my analysis also confirms that the negative effects are proportionally significant in both direct and indirect larger divestitures to PE (Model 2, Table 6).

To confirm that these results are not subject to nonrandom target selection by PE firms, I also estimate them using the IPWRA and CEM matching specifications for direct and indirect PE acquirers in Table 7, Models 3–6. Again, the results are consistent with the main analysis, with a direct PE coefficient of -0.015 ($p = .037$) in IPWRA Model 3 and a direct PE coefficient of -0.014 ($p = .076$) in CEM Model 4. The coefficient on indirect PE-owned firms is -0.006 ($p = .443$) in IPWRA Model 7, and -0.004 ($p = .698$) in CEM Model 8, suggesting lack of any effects.

These findings offer evidence that divesting firms' lower returns when divesting to a PE may, at least in part, correlate with lower creation of ownership value in direct divestitures to PE, but not in divestitures to PE-owned firms. These effects are also robust to nonrandom target selection.

4.5 | Are lower returns when divesting to PE acquirers linked to the PE firms' transaction timing strategies?

A PE acquirer may be more likely than a corporate acquirer to create value by strategically timing its transactions. An industry downturn, a weak financial position, or a strategic change may force an owner to divest a business at a suboptimal time, creating a timing opportunity for a PE acquirer (Adegbesan, 2009; Arikan & Stulz, 2016; Bradley et al., 1988; Feldman, 2014; Feldman et al., 2016, 2019; Lee & Madhavan, 2010). To investigate the effects of PE transaction timing strategies on divesting firms' returns when divesting to a PE acquirer rather than a corporate acquirer, I explore the effects of the following factors that might prompt an owner to divest a business in suboptimal conditions: the divesting firm's profitability, market value change, underperforming acquisitions of its own, and change in its strategic direction.

First, to assess the effects of the divesting firm's overall financial standing, the sample of divestitures was split based on the mean profitability of the divesting firm, into comparatively higher- and lower-profitability divesting firms in Table 8 (Models 1a and 1b; Models 2a and 2b). For more profitable divesting firms, there was no evidence of lower returns when divesting to a PE acquirer generally, or to a direct or an indirect PE acquirer specifically (Models 1b and 2b in Table 8). In contrast, for the less profitable divesting firms, there was a strong and notable negative effect of divesting to PE acquirers generally (-0.023 or 2.3%, $p = .012$) or to a direct PE acquirer specifically (-0.029 or 2.9%, $p = .007$), as shown in Models 1a and 2a (Table 8). There was no evidence of such negative effects when divesting indirectly, to a PE-owned firm (-0.012, $p = .354$).

When the PE acquirer variables were interacted with the profitability of the divesting firm in Table 9, Models 1a and 1b, there was a notable positive interaction effect associated with divestitures in which a more profitable firm divested to a PE acquirer generally (0.096, $p = .048$)

TABLE 8 Transaction timing: Split samples.

Model	Divesting firm profitability				Divesting firm market value change			
	Low	High	Low	High	Negative	Positive	Negative	Positive
	1a	1b	2a	2b	3a	3b	4a	4b
PE acquirer	−0.023 [0.009] (.012)	0.001 [0.006] (.908)			−0.013 [0.008] (.111)	−0.004 [0.006] (.455)		
Direct PE acquirer			−0.029 [0.011] (.007)	0.002 [0.008] (.810)			−0.016 [0.009] (.069)	−0.007 [0.009] (.454)
Indirect PE acquirer			−0.012 [0.013] (.354)	−0.002 [0.007] (.788)			−0.008 [0.014] (.579)	−0.001 [0.006] (.902)
N	527	528	527	528	544	511	544	511
R^2	.0917	.0790	.0937	.0791	.1136	.0883	.1141	.0887

Model	Divesting firm recent goodwill impairment?				Divesting firm has a new CEO?			
	Yes	No	Yes	No	Yes	No	Yes	No
	5a	5b	6a	6b	7a	7b	8a	8b
PE acquirer	−0.027 [0.015] (.071)	−0.006 [0.005] (.221)			−0.035 [0.020] (.086)	−0.011 [0.005] (.054)		
Direct PE acquirer			−0.038 [0.017] (.026)	−0.006 [0.006] (.389)			−0.048 [0.026] (.068)	−0.011 [0.006] (.073)
Indirect PE acquirer			0.018 [0.030] (.543)	−0.008 [0.008] (.288)			−0.002 [0.026] (.937)	−0.009 [0.008] (.254)
N	209	846	209	846	208	847	208	847
R^2	.1933	.0627	.2045	.0627	.2154	.0496	.2297	.0497

Note: All controls, including selection adjustment, and year effects included in all models. Robust standard errors in brackets. *p*-Values in parentheses.

TABLE 9 Transaction timing: Interactions.

	Divesting firm profitability		Divesting firm market value change		Divesting firm goodwill impairment		Divesting firm new CEO	
	1a	1b	2a	2b	3a	3b	4a	4a
PE acquirer	−0.026 [0.010] (.008)		−0.008 [0.005] (.134)		−0.009 [0.005] (.071)		−0.012 [0.005] (.033)	
Direct PE acquirer		−0.034 [0.008] (.000)		−0.013 [0.006] (.047)		−0.010 [0.006] (.084)		−0.012 [0.006] (.054)
Indirect PE acquirer		0.009 [0.025] (.725)		−0.003 [0.006] (.624)		−0.009 [0.010] (.393)		−0.010 [0.008] (.190)
Parent profitability	−0.017 [0.017] (.314)	−0.016 [0.017] (.332)						
Parent prof. × PE acquirer	0.096 [0.049] (.048)							
Parent prof. × Direct PE acq.		0.135 [0.033] (.000)						
Parent prof. × Indirect PE acq.		−0.100 [0.128] (.439)						
Divesting firm market value change			−0.004 [0.006] (.570)	−0.003 [0.006] (.595)				
Divesting firm MV change × PE acq.			0.042 [0.012] (.001)					
Divesting firm MV change × Direct PE acq.				0.030 [0.014] (.042)				

TABLE 9 (Continued)

	Divesting firm profitability		Divesting firm market value change		Divesting firm goodwill impairment		Divesting firm new CEO	
	1a	1b	2a	2b	3a	3b	4a	4a
Divesting firm MV change × Indirect PE acq.				0.067 [0.011] (.000)				
Parent divestiture experience					0.045 [0.026] (.078)	0.045 [0.026] (.079)		
Parent div. exp. × PE acq.					−0.256 [0.046] (.000)			
Parent div. exp. × Direct PE acq.						−0.260 [0.046] (.000)		
Parent div. exp. × Indirect PE acq.						2.486 [2.475] (.316)		
Divesting firm has a new CEO							0.005 [0.005] (.366)	0.005 [0.005] (.370)
Divesting firm new CEO × PE acq.							−0.005 [0.015] (.765)	
Divesting firm new CEO × Direct PE acq.								−0.014 [0.018] (.424)
Divesting firm new CEO × Indirect PE acq.								0.017 [0.025] (.510)
N	1055	1055	970	970	1055	1055	1055	1055
R^2	.0678	.0724	.0800	.0836	.0783	.082	.0642	.0658

Note: All controls, including selection adjustment, and year effects included in all models. Robust standard errors in brackets. *p*-Values in parentheses.

or directly (0.135, $p = .000$). Profitability is a ratio, so these effects must be interpreted accordingly. There was no interaction effect on divesting indirectly to a PE-owned firm. However, profitability itself does not correlate with divestiture performance in the interaction regression. Thus, the results should be interpreted cautiously: Although there may not be a consistent linear relationship between divesting firms' profitability and returns from divesting to PE acquirers, at some level the less profitable divesting firms divesting directly to PE acquirers may represent an opportunity for PE firms to create value through transaction timing. This explanation is consistent with the split-sample analyses.

Second, I study the effects of another source of pressure on the divesting firm to sell at a suboptimal time: change in its market value, as represented by Tobin's Q. In this analysis, the divesting firms were divided into those with an increased Tobin's Q value in the previous year versus those with a decreased Tobin's Q, as shown in Models 3a, 3b, 4a, and 4b in Table 8. There was no substantial evidence that a negative change in Tobin's Q presented a transaction timing opportunity for PE firms in general, as the coefficient on *PE acquirer* was -0.018 ($p = .111$). In contrast, when the PE acquirers were divided into direct and indirect acquirers, there was some evidence that direct divestitures to PE acquirers underperformed in the group of divesting firms with decreased market value (-0.016, $p = .069$). Interaction analysis shows limited additional support for this relationship (see Models 2a and 2b in Table 9). Although the effect of divesting firms' market value change was not notable, the coefficients for the interactions with PE acquirers in general (0.042, $p = .001$), direct PE acquirers (0.030, $p = .042$), and PE-owned acquirer firms (0.067, $p = .000$) were all positive. This interaction analysis may be carefully interpreted as implying that firms that divest businesses when their market value is increasing are less likely to divest at a suboptimal time and less likely to offer transaction timing opportunities for PE acquirers.

Third, I explore the effects of another source of pressure on the divesting firm to sell at a suboptimal time. Drawing on the prior literature emphasizing the correlation between accounting goodwill write-offs and M&A performance (Rabier, 2017), a variable was created that measures the ratio of goodwill write-offs to the divesting firm's assets. According to generally accepted accounting principles, goodwill a firm's balance sheet may increase because of acquisitions undertaken by that firm in which the purchase price exceeds the book value of the acquired business. Goodwill is written off or reduced when acquisitions underperform expectations. Thus, firms with a high ratio of goodwill write-offs to assets are underperforming, potentially due to their own M&A activities. Thus, these firms may be pressured to divest. This variable may also help separate firms divesting due to poorly performing acquisitions from firms divesting redundant resources after successful acquisitions (Capron et al., 2001). This ratio is introduced into the interaction analysis in Table 9, Models 3a and 3b. The effect of the ratio is positive and notable in both models, suggesting that firms that have underperformed in their own M&As may benefit from divesting businesses, consistent with prior work (Berger & Ofek, 1999; Markides, 1992). Yet when that ratio is interacted with divesting to any PE acquirer or a direct PE acquirer, the effect is notable, negative, and high in magnitude: -0.256, $p = .000$ and -0.260, $p = .000$, respectively. Goodwill write-off is a ratio, and its effects must be interpreted accordingly. In contrast, there is no evidence of a similarly strong negative effect for divestitures made indirectly, to PE-owned firms (2.486, $p = .315$).

A split-sample analysis is presented in Table 8 (Models 5a and 5b; Models 6a and 6b), using a binary measure of any goodwill write-offs by the divesting firm in a year preceding a divestiture. The negative effects on divesting firm returns are largely confined to the scenarios of divesting to PE firms generally (-0.027, $p = .071$) or to direct PE acquirers specifically (-0.038,

$p = .026$) for divesting firms that have had any goodwill write-offs, but not for those in the sub-sample with no goodwill write-offs. This suggests that divesting firms that face pressure to divest following underperforming acquisitions of their own may realize lower returns when divesting to PE acquirers.

The fourth and final set of factors related to transaction timing considers firms undergoing strategic change. Such firms may divest at a suboptimal time, presenting a transaction timing opportunity for PE firms. In this analysis, CEO change in the prior year is employed as an indicator of strategic change, as it has been associated with a change in strategies and a higher likelihood of divestitures (Shimizu & Hitt, 2005; Weisbach, 1995). The sample of divesting firms was divided into firms with a new CEO versus those with no CEO change (Models 7a, 7b, 8a, and 8b in Table 8). The sample size was reduced to 970 after 85 observations were dropped due to missing data. Both subsamples feature lower returns to firms divesting businesses to PE acquirers, yet the magnitude of negative effects was greater for firms with a new CEO divesting to PE acquirers generally (-0.035, $p = .020$ vs. -0.011, $p = .054$ for no CEO change) or directly (-0.048, $p = .068$ vs. -0.011, $p = .073$ for no CEO change). No notable effects were observed when divesting to PE-owned firms. However, an interaction analysis failed to confirm these results (Models 6a and 6b, Table 9).

In summary, these analyses offer limited evidence that transaction timing strategies of PE acquirers may lead to lower shareholder returns for the divesting firms when those firms are in a poor financial position. However, divesting firms' returns are less likely to be affected by PE acquirers' transaction timing strategies when they are in a strong financial position, or when they are divesting a business to a PE-owned firm rather than to a PE acquirer directly.

5 | DISCUSSION AND CONCLUSION

This study answers the call to investigate the outcomes of divestiture buyouts by PE acquirers and the counterparty effect on M&A returns to divesting firms (Feldman, 2020, 2021; Feldman et al., 2019; Kaul et al., 2018). It offers novel empirical insights into an important and growing phenomenon of PE, and elaborates on the heterogeneity of both divestitures and divestiture outcomes. In addition, it expands academic understanding of the role and behavior of PE acquirers in the market for divested businesses, as well as the dynamics of value creation in M&A transactions that involve PE firms. The focus here is on differences in the performance of divesting firms selling businesses to PE acquirers rather than to corporate acquirers. My general findings suggest that divestitures to PE acquirers correlate with comparatively lower, even negative, and organizationally significant divesting firm returns. These negative shareholder returns are robust and persistent when accounting for bias from sampling in regards to divesting. The study examines whether these performance differences are due to PE acquirers' target selection strategies, differences in PE firms' ownership strategies, or differences in PE firms' transaction timing strategies, all relative to those of corporate acquirers. I find no evidence that lower returns from divesting to PE acquirers are correlated with differences in target selection strategies. However, the evidence suggests that divesting firms' lower returns may correlate with lower ownership value creation by direct PE acquirers. Moreover, limited evidence indicates that PE acquirers may benefit from suboptimal timing of divestitures by financially pressured divesting firms. Finally, these factors may interact, as divesting firms' returns from divestitures to PE-owned acquirer firms, which may target value creation from synergies, tend to be higher than those from divestitures directly to PE acquirers, even when the PE acquirers may have a

timing advantage. Moreover, divesting firms in a strong financial position do not seem to realize lower returns when divesting their businesses to any PE acquirers, suggesting that they either have more bargaining power or are able to create more of their own value even when divesting to PE firms, to compensate for their weaker position.

This study offers directions and raises many questions for future work. First, it contributes to work on corporate strategy, the market for corporate assets, and value creation and division in M&A. It suggests that the dynamics of value creation in M&A transactions broadly and divestitures specifically are nuanced, especially when considering the characteristics of the divesting firm, the divested business, and the acquirer, and especially when that acquirer is an idiosyncratic actor such as a PE firm, as opposed to the more commonly considered corporation (Feldman, 2020, 2021; Kaul et al., 2018). Not only may businesses divested to PE firms differ from those divested to corporate acquirers, but these divestitures to PE acquirers may also have a distinct effect on the divesting firms' outcomes because they may differ in terms of the value creation dynamics associated with the trilateral combination of divesting firm, divested business, and the PE acquirer (Feldman, 2020, 2021; Kaul et al., 2018). When firms divest to PE acquirers, less value may be created relative to divestitures to corporate acquirers, which are more likely to be motivated by synergy-based sources of value. Thus, this study speaks to the corporate restructuring literature by elaborating how some divestitures may lead to lower returns for the divesting firms, at least as reflected in short-term shareholder returns, offering a contingency to prior work (Feldman, 2014, 2021; Lee & Madhavan, 2010; Maksimovic & Phillips, 2001; Singh, 1990; Smart & Waldfogel, 1994).

Second, this work suggests a need for more scholarly work that considers PE as a distinct form of governance and ownership, and PE firms as distinct actors in the market for corporate assets. It provides new evidence that not only do PE firms behave in ways distinct from corporate acquirers and target different types of businesses, but also that outcomes for firms transacting with PE firms may differ from those stemming from transactions with corporate counterparties (Benner & Zenger, 2016; Berger & Ofek, 1996; Castellaneta & Gottschalg, 2016; Kaul et al., 2018). Specifically, the value creation potential may differ both across PE value creation strategies and among PE acquirers themselves, as add-on acquisitions by PE-owned firms may be motivated by synergies similar to those targeted by corporate acquirers. Future research can further explore the role that PE firms play in the market for corporate assets by focusing on how PE firms create value and capture it at the transaction level through specific strategies (Adegbesan, 2009; Laamanen et al., 2014). In addition, future work can study returns from specific PE value creation strategies and similarities and explore differences in how value is created and captured by PE-owned firms relative to both direct PE acquirers and corporate acquirers.

Third, this work raises more questions about transactions between divesting firms and PE acquirers. Does it make sense to divest businesses to PE firms? At a first glance, the answer seems to be "no" because the short-term returns from these transactions may be comparatively worse than those from transactions with corporate acquirers. Yet, as the mechanism analyses in this study show, the dynamics of value creation when divesting to PE firms are nuanced. Some of the mechanisms highlighted in prior literature, such as the overall strength of the divesting firm's financial position and the likely lack of pressure to sell, may positively influence divesting firms' performance and diminish the likelihood of lower returns. It may also be worth considering why, how, and when firms choose to divest to PE acquirers, and whether transactions with PE firms in general may negatively impact shareholder value in the short term or be

undervalued by the markets, and preserve or create more value for the divesting firm in the long term. For example, the divestiture of a less attractive business to a PE acquirer, even if it leads to lower value creation relative to a hypothetical counterfactual transaction with a corporate acquirer, may still be an efficient way for a divesting firm to shed negative synergies, or to free up capital and reallocate resources to achieve its long-term goals, especially if time is of the essence. Thus, future work may consider the long-term effects of divesting to PE firms. It can also explore whether PE firms may play a valuable role in the M&A ecosystem (Nary & Kaul, 2023), helping create a more efficient market for divested assets by acquiring businesses deemed unattractive by other potential buyers, even if at a discount.

Like all research, this study has its limitations. While its main results are stable and robust across different specifications, they should be considered correlational due to the multifaceted endogeneity in this context. This work lacks insights into specific matching mechanisms between the acquirer and the divesting firm, and does not clarify whether certain acquirers may systematically underpay or overpay for divested businesses, although I control for this factor where possible. The analysis of divesting firms' outcomes is limited to short-term shareholder returns and does not distinguish whether the stock market reaction is correlated with unobserved measures of firm-level performance, investor uncertainty, or stigma associated with selling to a PE firm (Schijven & Hitt, 2012). Because the value division process is not observed, the empirical analysis is unable to fully tease out value creation from value capture. Even so, the differences in returns identified in this study are stable and consistent. Finally, the sample only includes divestitures of publicly owned manufacturing firms based in the United States, which may limit the generalizability of the findings. Nevertheless, these divesting firms in the sample own and divest businesses outside of the United States, as well as outside of the manufacturing industry, so industry diversity is higher among the divested businesses than it would appear only among the divesting firms.

DATA AVAILABILITY STATEMENT

The data used for empirical analysis in this study were gathered from multiple commercial vendors, including Refinitiv SDC Platinum (formerly ThomsonReuters SDC Platinum), S&P s Compustat and Execucomp, Capital IQ, Center for Research in Security Prices (CRSP), Preqin, and Privco, as well as from various public sources.

ORCID

Paul Nary https://orcid.org/0000-0003-4785-2545

REFERENCES

Adegbesan, J. A. (2009). On the origins of competitive advantage: Strategic factor markets and heterogeneous resource complementarity. *Academy of Management Review*, *34*(3), 463–475.

Aktas, N., Baros, A., & Croci, E. (2022). Corporate divestitures around acquisitions. *Journal of Corporate Finance*, *73*, 102189.

Anand, J., & Singh, H. (1997). Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*, *18*(S1), 99–118.

Arikan, A. M., & Stulz, R. M. (2016). Corporate acquisitions, diversification, and the firm's life cycle. *Journal of Finance*, *71*(1), 139–194.

Bain & Company. (2019). Global private equity report 2019. Retrieved from https://www.bain.com/contentassets/875a49e26e9c4775942ec5b86084df0a/bain_report_private_equity_report_2019.pdf

Baker, G. P., & Montgomery, C. A. (1994). Conglomerates and LBO associations: A comparison of organizational forms. HBS Working Paper. Cambridge, MA: Harvard Business School.

Bao, J., & Edmans, A. (2011). Do investment banks matter for M&A returns? *Review of Financial Studies*, *24*(7), 2286–2315.

Bargeron, L. L., Schlingemann, F. P., Stulz, R. M., & Zutter, C. J. (2008). Why do private acquirers pay so little compared to public acquirers? *Journal of Financial Economics*, *89*(3), 375–390.

Barney, J. B. (1986). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, *32*(10), 1231–1241.

Barney, J. B. (1988). Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis. *Strategic Management Journal*, *9*(S1), 71–78.

Barney, J. B., Ketchen, D. J., Jr., & Wright, M. (2021). Bold voices and new opportunities: An expanded research agenda for the resource-based view. *Journal of Management*, *47*(7), 1677–1683.

Benner, M. J., & Zenger, T. (2016). The lemons problem in markets for strategy. *Strategy Science*, *1*(2), 71–89.

Berger, P. G., & Ofek, E. (1996). Bustup takeovers of value-destroying diversified firms. *Journal of Finance*, *51*(4), 1175–1200.

Berger, P. G., & Ofek, E. (1999). Causes and effects of corporate refocusing programs. *Review of Financial Studies*, *12*(2), 311–345.

Bergh, D. D. (1997). Predicting divestiture of unrelated acquisitions: An integrative model of ex ante conditions. *Strategic Management Journal*, *18*(9), 715–731.

Bergh, D. D., Johnson, R. A., & Dewitt, R. L. (2008). Restructuring through spin-off or sell-off: Transforming information asymmetries into financial gain. *Strategic Management Journal*, *29*(2), 133–148.

Berry, H. (2010). Why do firms divest? *Organization Science*, *21*(2), 380–396.

Bingham, C. B., Heimeriks, K. H., Schijven, M., & Gates, S. (2015). Concurrent learning: How firms develop multiple dynamic capabilities in parallel. *Strategic Management Journal*, *36*(12), 1802–1825.

Blackwell, M., Iacus, S., King, G., & Porro, G. (2009). Cem: Coarsened exact matching in Stata. *Stata Journal*, *9*(4), 524–546.

Bradley, M., Desai, A., & Kim, E. H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, *21*(1), 3–40.

Brandenburger, A. M., & Stuart, H. W., Jr. (1996). Value-based business strategy. *Journal of Economics & Management Strategy*, *5*(1), 5–24.

Brauer, M. F., & Wiersema, M. F. (2012). Industry divestiture waves: How a firm's position influences investor returns. *Academy of Management Journal*, *55*(6), 1472–1492.

Brown, G., & Witte, P. (2018). *Understanding PE's impact on the economy*. Ernst & Young, Institute for Private Capital. Retrieved from https://www.ey.com/Publication/vwLUAssets/ey-understanding-pes-impact-on-the-economy/$File/ey-understanding-pes-impact-on-the-economy.pdf

Bryce, D. J., & Winter, S. G. (2009). A general interindustry relatedness index. *Management Science*, *55*(9), 1570–1585.

Capron, L., Mitchell, W., & Swaminathan, A. (2001). Asset divestiture following horizontal acquisitions: A dynamic view. *Strategic Management Journal*, *22*(9), 817–844.

Capron, L., & Pistre, N. (2002). When do acquirers earn abnormal returns? *Strategic Management Journal*, *23*(9), 781–794.

Capron, L., & Shen, J. C. (2007). Acquisitions of private vs. public firms: Private information, target selection, and acquirer returns. *Strategic Management Journal*, *28*(9), 891–911.

Castellaneta, F., & Gottschalg, O. (2016). Does ownership matter in private equity? The sources of variance in buyouts' performance. *Strategic Management Journal*, *37*(2), 330–348.

Certo, S. T., Busenbark, J. R., Woo, H. S., & Semadeni, M. (2016). Sample selection bias and Heckman models in strategic management research. *Strategic Management Journal*, *37*(13), 2639–2657.

Chen, S., & Feldman, E. R. (2018). Activist-impelled divestitures and shareholder value. *Strategic Management Journal*, *39*(10), 2726–2744.

Clubb, C., & Stouraitis, A. (2002). The significance of sell-off profitability in explaining the market reaction to divestiture announcements. *Journal of Banking & Finance*, *26*(4), 671–688.

Cumming, D., Siegel, D. S., & Wright, M. (2007). Private equity, leveraged buyouts and governance. *Journal of Corporate Finance*, *13*(4), 439–460.

Dean, J. (2011). Tom Gores: Balancing family, business, and the Detroit pistons. C-Suite Magazine. Retrieved from https://csq.com/2011/07/tom-gores-balancing-family-business-detroit-pistons/

Duhaime, I. M., & Grant, J. H. (1984). Factors influencing divestment decision-making: Evidence from a field study. *Strategic Management Journal*, *5*(4), 301–318.

Easterwood, J. C. (1998). Divestments and financial distress in leveraged buyouts. *Journal of Banking & Finance*, *22*(2), 129–159.

Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review*, *10*(1), 1–21.

Feldman, E. R. (2014). Legacy divestitures: Motives and implications. *Organization Science*, *25*(3), 815–832.

Feldman, E. R. (2016). Corporate spinoffs and analysts' coverage decisions: The implications for diversified firms. *Strategic Management Journal*, *37*(7), 1196–1219.

Feldman, E. R. (2020). Corporate strategy: Past, present, and future. *Strategic Management Review*, *1*, 179–206.

Feldman, E. R. (2021). Restructuring and divestitures. In I. Duhaime, M. Hitt, & M. Lyles (Eds.), *Strategic management: State of the field and its future* (p. 153–166). Oxford University Press.

Feldman, E. R., Amit, R., & Villalonga, B. (2016). Corporate divestitures and family control. *Strategic Management Journal*, *37*(3), 429–446.

Feldman, E. R., Amit, R., & Villalonga, B. (2019). Family firms and the stock market performance of acquisitions and divestitures. *Strategic Management Journal*, *40*(5), 757–780.

Feldman, E. R., & Hernandez, E. (2022). Synergy in mergers and acquisitions: Typology, life cycles, and value. *Academy of Management Review*, *47*(4), 549–578.

Fidrmuc, J. P., Roosenboom, P., Paap, R., & Teunissen, T. (2012). One size does not fit all: Selling firms to private equity versus strategic acquirers. *Journal of Corporate Finance*, *18*(4), 828–848.

Fishman, M. J. (1989). Preemptive bidding and the role of the medium of exchange in acquisitions. *Journal of Finance*, *44*(1), 41–57.

Foss, N. J., Klein, P. G., Lien, L. B., Zellweger, T., & Zenger, T. (2021). Ownership competence. *Strategic Management Journal*, *42*(2), 302–328.

Ghai, S., Kehoe, C., & Pinkus, G. (2014). Private equity: Changing perceptions and new realities. McKinsey Quarterly. Retrieved from https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/private-equity-changing-perceptions-and-new-realities

Golubov, A., Petmezas, D., & Travlos, N. G. (2012). When it pays to pay your investment banker: New evidence on the role of financial advisors in M&As. *Journal of Finance*, *67*(1), 271–311.

Gorbenko, A. S., & Malenko, A. (2014). Strategic and financial bidders in takeover auctions. *Journal of Finance*, *69*(6), 2513–2555.

Graebner, M. E., Knott, A. M., Lieberman, M. B., & Mitchell, W. (2023). Empirical inquiry without hypotheses: A question-driven, phenomenon-based approach to strategic management research. *Strategic Management Journal*, *44*(1), 3–10.

Grimpe, C., & Hussinger, K. (2014). Resource complementarity and value capture in firm acquisitions: The role of intellectual property rights. *Strategic Management Journal*, *35*(12), 1762–1780.

Guo, S., Hotchkiss, E. S., & Song, W. (2011). Do buyouts (still) create value? *Journal of Finance*, *66*(2), 479–517.

Hamilton, B. H., & Nickerson, J. A. (2003). Correcting for endogeneity in strategic management research. *Strategic Organization*, *1*(1), 51–78.

Harris, R. S., Jenkinson, T., & Kaplan, S. N. (2014). Private equity performance: What do we know? *Journal of Finance*, *69*(5), 1851–1882.

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica: Journal of the Econometric Society*, *47*, 153–161.

Hege, U., Lovo, S., Slovin, M. B., & Sushka, M. E. (2018). Divisional buyouts by private equity and the market for divested assets. *Journal of Corporate Finance*, *53*, 21–37.

Hoskisson, R. E., Johnson, R. A., & Moesel, D. D. (1994). Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. *Academy of Management Journal*, *37*(5), 1207–1251.

Hoskisson, R. E., Shi, W., Yi, X., & Jin, J. (2013). The evolution and strategic positioning of private equity firms. *Academy of Management Perspectives*, *27*(1), 22–38.

Humphery-Jenner, M., Powell, R., & Zhang, E. J. (2019). Practice makes progress: Evidence from divestitures. *Journal of Banking & Finance*, *105*, 1–19.

Imbens, G. W., & Wooldridge, J. M. (2009). Recent developments in the econometrics of program evaluation. *Journal of Economic Literature*, *47*(1), 5–86.

Iyer, D. N., & Miller, K. D. (2008). Performance feedback, slack, and the timing of acquisitions. *Academy of Management Journal*, *51*(4), 808–822.

Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics*, *11*(1–4), 5–50.

John, K., & Ofek, E. (1995). Asset sales and increase in focus. *Journal of Financial Economics*, *37*(1), 105–126.

Kaul, A., Nary, P., & Singh, H. (2018). Who does private equity buy? Evidence on the role of private equity from buyouts of divested businesses. *Strategic Management Journal*, *39*(5), 1268–1298.

Klein, P. G., Chapman, J. L., & Mondelli, M. P. (2013). Private equity and entrepreneurial governance: Time for a balanced view. *Academy of Management Perspectives*, *27*(1), 39–51.

Kusewitt, J. B., Jr. (1985). An exploratory study of strategic acquisition factors relating to performance. *Strategic Management Journal*, *6*(2), 151–169.

Laamanen, T., Brauer, M., & Junna, O. (2014). Performance of acquirers of divested assets: Evidence from the U.S. software industry. *Strategic Management Journal*, *35*(6), 914–925.

Lee, D., & Madhavan, R. (2010). Divestiture and firm performance: A meta-analysis. *Journal of Management*, *36*(6), 1345–1371.

Lippman, S. A., & Rumelt, R. P. (2003). A bargaining perspective on resource advantage. *Strategic Management Journal*, *24*(11), 1069–1086.

Loughran, T., & Vijh, A. M. (1997). Do long-term shareholders benefit from corporate acquisitions? *Journal of Finance*, *52*(5), 1765–1790.

MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature*, *35*(1), 13–39.

Makadok, R., & Barney, J. B. (2001). Strategic factor market intelligence: An application of information economics to strategy formulation and competitor intelligence. *Management Science*, *47*(12), 1621–1638.

Maksimovic, V., & Phillips, G. (2001). The market for corporate assets: Who engages in mergers and asset sales and are there efficiency gains? *Journal of Finance*, *56*(6), 2019–2065.

Markides, C. C. (1992). Consequences of corporate refocusing: Ex ante evidence. *Academy of Management Journal*, *35*(2), 398–412.

Nary, P., & Kaul, A. (2023). Private equity as an intermediary in the market for corporate assets. *Academy of Management Review*, *48*(4), 719–748.

Penrose, E. T. (1958). *The theory of the growth of the firm*. Oxford University Press.

Phalippou, L., & Gottschalg, O. (2008). The performance of private equity funds. *Review of Financial Studies*, *22*(4), 1747–1776.

Preqin. (2018). 2018 Preqin global private equity and venture capital report. Retrieved from http://docs.preqin.com/reports/2018-Preqin-Global-Private-Equity-Report-Sample-Pages.pdf

Rabier, M. R. (2017). Acquisition motives and the distribution of acquisition performance. *Strategic Management Journal*, *38*(13), 2666–2681.

Ruback, R. S. (1983). Assessing competition in the market for corporate acquisitions. *Journal of Financial Economics*, *11*(1–4), 141–153.

Schijven, M., & Hitt, M. A. (2012). The vicarious wisdom of crowds: Toward a behavioral perspective on investor reactions to acquisition announcements. *Strategic Management Journal*, *33*(11), 1247–1268.

Shaver, J. M. (1998). Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival? *Management Science*, *44*(4), 571–585.

Shimizu, K., & Hitt, M. A. (2005). What constrains or facilitates divestitures of formerly acquired firms? The effects of organizational inertia. *Journal of Management*, *31*(1), 50–72.

Singh, H. (1990). Management buyouts: Distinguishing characteristics and operating changes prior to public offering. *Strategic Management Journal*, *11*(5), 111–129.

Słoczyński, T., Uysal, S. D., & Wooldridge, J. M. (2022). Doubly robust estimation of local average treatment effects using inverse probability weighted regression adjustment. arXiv preprint, arXiv:2208.01300.

Smart, S. B., & Waldfogel, J. (1994). Measuring the effect of restructuring on corporate performance: The case of management buyouts. *Review of Economics and Statistics*, *76*, 503–511.

Strong, N. (1992). Modelling abnormal returns: A review article. *Journal of Business Finance & Accounting*, *19*(4), 533–553.

Valkama, P., Maula, M., Nikoskelainen, E., & Wright, M. (2013). Drivers of holding period firm-level returns in private equity–backed buyouts. *Journal of Banking & Finance*, *37*(7), 2378–2391.

Vidal, E. (2021). Divestitures, value creation, and corporate scope. *Strategic Management Review*, *2*(2), 413–435.

Vidal, E., & Mitchell, W. (2015). Adding by subtracting: The relationship between performance feedback and resource reconfiguration through divestitures. *Organization Science*, *26*(4), 1101–1118.

Walters, B. A., Kroll, M. J., & Wright, P. (2007). CEO tenure, boards of directors, and acquisition performance. *Journal of Business Research*, *60*(4), 331–338.

Weisbach, M. S. (1995). CEO turnover and the firm's investment decisions. *Journal of Financial Economics*, *37*(2), 159–188.

Wolfolds, S. E., & Siegel, J. (2019). Misaccounting for endogeneity: The peril of relying on the Heckman two-step method without a valid instrument. *Strategic Management Journal*, *40*(3), 432–462.

Zhang, H. (2021). Private equity now accounts for 30% of M&A activity. Institutional Investor. Retrieved from https://www.institutionalinvestor.com/article/b1v9ssw2f2tl0w/Private-Equity-Now-Accounts-for-30-of-M-amp-A-Activity

Zollo, M., & Reuer, J. J. (2010). Experience spillovers across corporate development activities. *Organization Science*, *21*(6), 1195–1212.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Nary, P. (2024). Do corporations benefit from divesting to private equity acquirers? An empirical investigation. *Strategic Management Journal*, 1–37. https://doi.org/10.1002/smj.3611