



# Private Equity: Antecedents, Outcomes, Mediators, and Moderators

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*As private equity's financial heft and influence on the business landscape has intensified, so too has scholarly interest in the phenomenon. We review recent progress in private equity research, with a focus on the private equity industry's later-stage buyout segment. To synthesize and integrate current findings, we construct a framework that encompasses not only antecedents and outcomes of private equity's activities, but also mediators and moderators of the relationships that drive these outcomes. Based upon the gaps and learning opportunities that are surfaced by this framework, we develop recommendations for future private equity research. The proposed research agenda is particularly germane to management scholars, whose theories and perspectives have thus far been productively, yet relatively sparingly, applied in private equity research.*

**Keywords:** private equity; buyout; mergers & acquisitions

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## Introduction

From its inception over 50 years ago, the private equity industry has become increasingly entrenched as a major player in the economy. In 2019, private equity firms engaged in transactions worth \$450 billion and retained \$1.5 trillion in unspent capital globally. The presence of private equity investment is unignorable: in the United States, the number of private equity-

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backed firms has surpassed 8,000 (from approximately 4,000 in 2006), which is nearly double the number of publicly traded firms (*Bloomberg Businessweek*, 2019, 2020). Indeed, a study that covered 20 industries in 26 major nations finds that in a given year and country, 4% of the average industry (as measured by sales) is acquired by private equity—which in turn holds these investments for a median period of more than five years (Bernstein, Lerner, Sorensen, & Stromberg, 2017). These statistics translate into an extensive amount of deal activity. Some recent years have seen private equity accounting for 30% of all global M&A volume (Klein, Chapman, & Mondelli, 2013; Metrick & Yasuda, 2010).

In this review, we follow a standard definition of private equity, wherein private equity (PE) refers to those firms that engage in leveraged buyouts (LBOs) of businesses using capital that they raised from investors and pooled into funds (Axelson, Strömberg, & Weisbach, 2009; Gompers, Kaplan, & Mukharlyamov, 2016; Hoskisson, Shi, Yi, & Jin, 2013; Morris & Phalippou, 2020). PE's general value proposition is straightforward. Through its fund (for which executives from the PE firm serve as general partners [GPs]), a PE firm acquires underperforming targets (which can be free-standing firms or divisions, private or public). The PE firm uses a combination of financial (e.g., high leverage and tax strategies), governance (e.g., active board leadership and close monitoring), and operational (e.g., strategic repositioning and cost-cutting) strategies to improve the operations of their portfolio companies (or “buyouts”) and generate economic value (Jensen, 1989; Kaplan & Stromberg, 2009). GPs earn fees and incentives, the bulk of which are contingent upon a successful exit (usually via sale or IPO); limited partners (LPs) contribute capital and are rewarded for the risk they assume and the illiquidity they bear over the typical ten-year life of the fund.<sup>1</sup>

Yet, this value proposition is controversial, with critics of PE charging that, far from being value creators, these “barbarians at the gate” (Burrough & Helyar, 1990) are, in fact, value destroyers. Detractors contend that PE employs techniques like asset stripping, market timing, tax avoidance, and suboptimal quick-flip exits to reap exorbitant remuneration that comes at the expense of buyout employees, taxpayers, and other stakeholders (Morrell & Clark, 2010; Morris & Phalippou, 2020; Palepu, 1990; Phalippou, 2009; Shleifer & Summers, 1988).

Given the relatively swift—yet contentious—ascendancy of PE and the academic attention it has garnered, it is not surprising that there have been numerous PE reviews. These range from the traditional literature reviews (Cumming, Siegel, & Wright, 2007; Wood & Wright, 2009) to works that are more akin to summaries and perspectives (Kaplan & Stromberg, 2009; Morris & Phalippou, 2020; Palepu, 1990). Some review articles are narrow by design, in response to the needs of specialized audiences. These include, for example, reviews targeted to readers in law (Subramanian, 2016), finance (Harris, Jenkinson, & Kaplan, 2014), family business (Schickinger, Leitterstorf, & Kammerlander, 2018), corporate governance (Wright, Amess, Weir, & Girma, 2009), and industrial relations (Wright, Bacon, & Amess, 2009). Reviews may also be technically oriented, such as Brown, Harris, Jenkinson, Kaplan, and Robinson's (2015) assessment of major PE databases and Korteweg's (2019) review of empirical methods for evaluating risk and return in PE. Some prior reviews jointly consider or even conflate early-stage (venture capital) and late-stage (buyout) PE in their evaluations (Kaplan & Sensoy, 2015; Metrick & Yasuda, 2011; Tykvová, 2018). Although this comingling can be useful when reviewing PE from an investment performance perspective, it can cloud insights when considering the motives, underpinning mechanisms, and nonfinancial outcomes of PE activities.

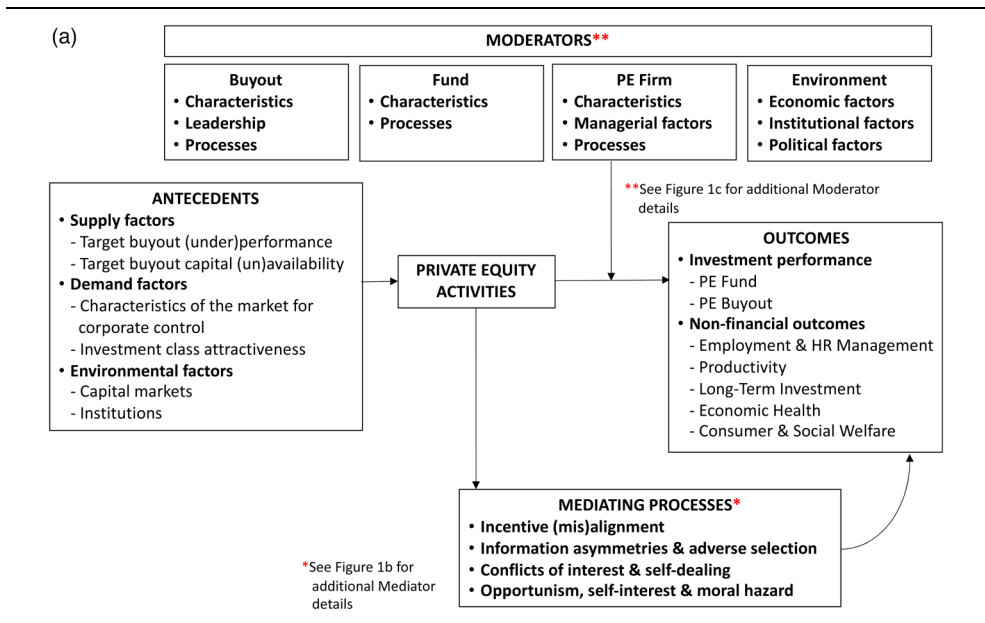
Against this backdrop, this review was designed and executed for a management-oriented scholar. This accounts for our deliberately multidisciplinary review, our decision to incorporate the three main levels of analyses (i.e., the PE firm, the PE fund, and the PE buyout), and our consideration of the full spectrum of PE’s financial and nonfinancial outcomes. Our focus is on late-stage PE, rather than the early-stage PE that typically takes the form of venture capital or angel investing (e.g., Drover et al., 2017).

Our coding of the recent literature surfaced four themes that catalyzed our development of a framework grounded in the antecedents and outcomes of PE activities, as well as the factors that mediate and moderate these relationships. Our framework categorizes and integrates recent PE research and helps distill research gaps and opportunities for future work.

### Recent Research on Private Equity

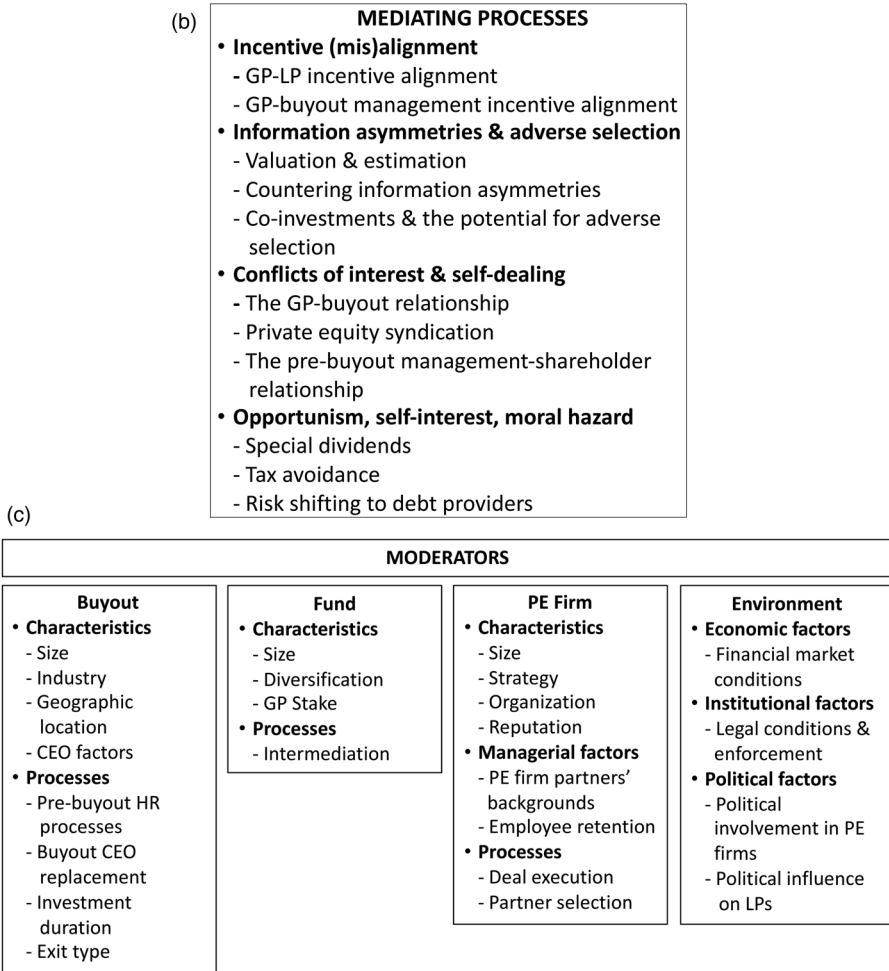
We designed our article sample for this review with several goals in mind. First, since scholarly attention on PE spans disciplinary boundaries—from management to finance to accounting—we wanted to ensure we were drawing from an appropriately diverse collection of journals. Second, recognizing the tension between the considerable volume of PE research and the space constraints of our review, we focused on the leading journals within each

**Figure 1**  
**Private Equity Literature: An Overview. (a) Full Overview. (b) Additional Mediator**  
**Details. (c) Additional Moderator Details**



(continued)

**Figure 1**  
**Continued**



discipline. Third, given that one of our core objectives was to provide readers with an up-to-date review of recent findings in PE, we limited the publication timeframe.

To meet these goals, we developed our sample using papers from journals included on the *Financial Times* (FT) top 50 journal list published from 2010 through 2020. Commonly referred to as the “FT50,” this well-regarded journal list is multidisciplinary by design. We consider not only the journals found in the current top 50 version, but also the four journals that were dropped when the FT list was revised in 2016.<sup>2</sup> The 2010 through 2020 publication timeframe offers recency and the opportunity to study not only the aftermath of the Great Recession, which had stark consequences for the PE industry, but also the subsequent sustained boom in PE activity that began mid-decade (Brown, Harris, Jenkinson, Kaplan, & Robinson, 2020).

We used Web of Science to search the journals on our FT50-based target list. Our search terms were *private equity*, *buyout*, *LBO*, and *MBO* (wherein the latter two represent “leveraged buyout” and “management buyout,” respectively). The Web of Science “topic search” capability looks for these terms within each paper’s title, abstract, author-assigned keywords, and Web of Science–assigned “Keywords Plus” (which are automatically generated by an algorithm).

This query returned 233 papers. We then removed papers that were false positives, such as “MBO” referring to “management by objectives.” Next, we ensured that each paper corresponded to our focus on PE’s later-stage buyout activities. This excludes VC and similarly early-stage forms of entrepreneurial financing. There were numerous papers that included both (early-stage) VC and (late-stage) PE data in their studies. If the paper shared findings that were attributable to PE specifically, we retained it. The exclusions left 148 papers.

We next turned to coding and assessing the articles themselves. We found four major themes in recent PE research: (1) antecedents that drive PE activities, (2) outcomes of PE activities, (3) mediating processes, and (4) moderators. Taken together, these themes form the framework that is presented in Figure 1, which we use to organize and synthesize the content of recent PE research. Figure 1 provides a “roadmap” for the structure of our review.

### **Antecedents: What Are the Drivers of Private Equity Activities?**

A major stream of recent research examines a variety of catalysts that spur PE activities. These antecedents fall into three broad categories: supply factors, demand factors, and environmental factors. “Supply” refers to the stock of potential PE buyout targets, “demand” corresponds to the extent of investor interest in participating in PE funds, and “environment” refers to the characteristics of the context in which supply and demand meet.

#### *Supply Factors*

Supply factors impact the availability of buyout targets for purchase by PE firms<sup>3</sup> through their fund vehicles.<sup>4</sup> Previous research often focused on buyout targets that are public companies, due in part to data availability and the media attention these larger deals garner (Boucly, Sraer, & Thesmar, 2011; Stromberg, 2008). Public company buyouts remain an important focus, but recent research (e.g. Boucly et al., 2011; Croce & Martí, 2016; Davis et al., 2014; Degeorge, Martin, & Phalippou, 2016; Kaul, Nary, & Singh, 2018) pays increasing attention to other types of buyout targets, which include private firms, family firms, divestitures and spinoffs (from public or private companies), and buyouts in other PE firms’ funds. This expansion represents a push toward a more comprehensive analysis of PE activities: public company buyouts comprise only 6% of PE buyout activity in deal volume and 27% by enterprise value (Stromberg, 2008). There are two general supply factors addressed by recent research—target buyout underperformance and target buyout capital availability.

*Target Buyout (Under)performance.* The recent research pertaining to target buyout (under)performance falls into three main categories: inefficient investment of excess free cash flow, CEO entrenchment, and preservation of socioemotional wealth.

**Inefficient investment of excess free cash flow.** Research continues to probe Jensen's (1986, 1989) "free cash flow hypothesis," which suggests that free cash flow makes "empire building" activities easier and thus exacerbates agency problems. PE firms sharply increase leverage (reducing free cash flow), improve CEO incentives, and closely monitor the CEO to eliminate agency problems (Kaplan, 1991; Kaplan & Stromberg, 2009; Palepu, 1990). However, recent support for the hypothesis seems to depend on context. Using a sample of US public firm targets that were taken private via LBO, Mehran and Peristiani (2010) strongly reaffirm the free cash flow hypothesis. In contrast, Aslan and Kumar (2011) find only mixed support in the United Kingdom; they did not find evidence that larger firms with high free cash flows are more likely to go private, and going private was significantly influenced by other key factors, such as being under levered and not growing. Bharath and Dittmar (2010) find that firms with higher free cash flow have a higher hazard rate of going private pre-1990, but this result disappears after 1990. They conclude that the resolution of agency issues from misspent free cash flow are becoming less important because PE firms increasingly emphasize value addition via operational rather than governance improvements.

**CEO entrenchment.** Another factor that could drive poor target performance is CEO entrenchment. Dow (2013) proposes that public company boards are reluctant to fire their CEOs since the board hired these leaders, so CEO firings send a negative signal to the market about the board's ability. The paper's model shows that PE-owned firms with reliable access to funding should be more willing to fire the CEO and thereby eliminate CEO entrenchment.

**Preservation of socioemotional wealth (SEW).** Recent work has explored how firm underperformance can contribute to the supply of potential PE buyouts in the context of family-controlled firms (for a helpful review of PE and family firms, see Schickinger et al., 2018). Dawson (2011) and Croce and Martí (2016) underscore how controlling family members may seek to preserve or extend their nonfinancial SEW at shareholders' expense. Managerial inexperience and nepotism can exacerbate firm performance problems (Bloom, Sadun, & Van Reenen, 2015; Dawson, 2011). Thus, while principal-agent problems may be mitigated in some family-controlled firms because the owners and managers coincide, family control and familial relations can still cause suboptimal financial results, and thereby increase family-owners' likelihood to sell to PE (Croce & Martí, 2016).

*Target Buyout Capital (Un)availability.* Firms and divisions facing capital constraints also fuel the supply of potential PE buyout targets because PE is strongly positioned to facilitate access to capital (Boucly et al., 2011; Croce & Martí, 2016; Fidrmuc, Palandri, Roosenboom, & van Dijk, 2013). Recent work emphasizes two drivers of target buyout capital (un)availability: (1) insufficient analyst/market coverage and (2) limited prior funding.

**Insufficient analyst/market coverage.** Focusing on buyout targets that had been public, Mehran and Peristiani (2010) find evidence for the "financial visibility hypothesis." In this view, firms that are unable to attract sufficient analyst coverage are vulnerable to mispricing and low share turnover, which makes accessing the capital markets more challenging and costly. Fidrmuc et al. (2013) explain why and how firms facing financing

constraints stemming from low market visibility become part of the PE buyout supply. Managers might want to go private, but the firm is too large and the managers own too few shares, so the managers proactively market themselves to PE firms as a potential PE target.

**Limited prior funding.** Limited (or suboptimal) access to credit or other funding sources leads to underinvestment, which in turn makes the firm a potential target for PE buyouts. Boucly et al. (2011) find evidence consistent with the “credit constraint hypothesis” in largely private-to-private buyouts in France. These private (and often family-owned) firms are more likely to face credit constraints pre-buyout but experience the largest post-buyout increases in capital expenditures. Kaul et al. (2018) investigate divisional buyouts, which are business units divested by public firms. Parent firms may underinvest in certain divisions, particularly those that are noncore. Kaul et al. (2018) find that PE firms systematically seek out such businesses, presumably because these out-of-favor business units need long-term strategic investment.

### *Demand Factors*

Demand factors influence investors’ interest in participating in the funds established by PE firms. A single fund may have hundreds of investors, or “limited partners” (LPs) (Morris & Phalippou, 2020). Securing investor demand for their funds is crucial to the PE business model because PE firms typically contribute only 1% to 2% of the fund’s equity and rely on the LPs to provide the remainder (Kaplan & Sensoy, 2015). PE firms, through their funds, serve as financial intermediaries between their LPs and their buyout investments. Two major demand themes emerged from our review: (1) characteristics of the market for corporate control and (2) investment class attractiveness.

*Characteristics of the Market for Corporate Control (MCC).* The MCC can be challenging for would-be acquirers and investors to navigate alone (Connelly, Hoskisson, Tihanyi, & Certo, 2010; Jensen & Ruback, 1983; Walsh & Seward, 1990). PE funds offer a vehicle for investors to more easily engage in this market. Recent work has focused on two MCC characteristics, competitiveness and the costs of participation, that affect the attractiveness of working through a PE fund relative to participating directly in the MCC.

**Competitiveness in the MCC.** Recent research highlights how PE funds (“PE acquirers” or “financial acquirers”) and strategic corporate firms (“corporate acquirers” or “strategic acquirers”) compete for the same buyout targets (Dittmar, Li, & Nain, 2012; Gorbenko & Malenko, 2014; Kaul et al., 2018). As competition increases, target availability decreases and prices rise—which may result in poorer fund returns (and thus less interest in PE fund investing). Gorbenko and Malenko (2014) debunk the common view that corporate bidders consistently have a higher willingness to pay than PE bidders. They find evidence of segmentation in the MCC: 22.4% of targets are systematically valued more by PE than corporate bidders, and these targets tend to be mature, poor performers. In contrast, corporate acquirers pay higher premiums for firms with higher investment opportunities. Dittmar et al. (2012) investigate this PE-versus-corporate buyer competition. They find that corporate acquirers who follow an initial bid by a financial acquirer will earn higher abnormal returns than if the first bid was

made by a corporate acquirer. They suggest these results demonstrate that PE buyers have exceptional target selection capability that corporate buyers are willing and able to exploit.

**Costs of participating directly in the MCC.** Participating in a PE fund will protect investors from dealing directly with challenges in the MCC, but engaging with PE intermediaries comes with costs, including the management and performance-based incentive (carried interest) fees<sup>5</sup> (Metrick & Yasuda, 2010). Research indicates that investors are growing increasingly impatient with these fees, and this has helped to fuel the rise of institutional investors opting to circumvent fund participation through direct investing (Fang, Ivashina, & Lerner, 2015; Phalippou, 2014), either alone or as a co-investor with a PE firm. Evidence about the benefits of these options is mixed. Fang et al. (2015) find that solo direct investments perform better than public market equivalent (PME) benchmarks, theoretically due to information advantages (such as from investing locally). However, co-investment performance is lower than the PE funds that LPs are co-investing with, potentially because adverse selection problems associated with the buyout deals offered for LP coparticipation. However, Braun, Jenkinson, and Schemmerl (2020) find co-investment outperforms PE fund investment as long as investors pursue a diversified portfolio with their co-investments (rather than one-off co-investments). Taken together, these results demonstrate that there is pressure on GPs to continuously ensure that their funds remain financially compelling to investors.

*Investment Class Attractiveness.* Investor interest in PE funds as a general asset class depends, in part, on how these investments fit with the investor's broader portfolio. Franzoni, Nowak, and Phalippou (2012) take aim at the conventional—yet not widely evidenced—belief that PE offers long-term investors diversification benefits. Their results indicate that PE's diversification benefits are lower than traditionally believed, since PE is significantly exposed to the same liquidity risk factors as other common asset classes (e.g., public equity). In contrast, Ang, Chen, Goetzmann, and Phalippou (2018) consider the potential for diversification benefits for investors among different types of PE asset classes—buyout, real estate, and VC funds. They find a low correlation among their return cycles, suggesting that diversifying across these PE classes could be beneficial for investors. Jegadeesh, Kräussl, and Pollet (2015) consider two fund types: publicly-traded PE funds that invest directly in PE transactions and publicly traded funds of funds that invest as LPs in unlisted PE funds. They find that the market beta for PE is close to one, which implies that PE investments deviate little from the market and thus do not add much risk diversification.

### *Environmental Factors*

Environmental factors shape the context in which supply and demand factors intersect. We uncovered two major categories of environmental factors: capital markets and institutions.

*Capital Markets.* Understanding how credit markets impact PE activity continues to be an active area of study. Recent work examines how the availability of debt financing contributes to boom and bust cycles (e.g. Achleitner, Braun, Hinterramskogler, & Tappeiner, 2012; Axelson, Jenkinson, Strömberg, & Weisbach, 2013; Ivashina & Sun, 2011; Martos-Vila, Rhodes-Kropf, & Harford, 2019; Shivdasani & Wang, 2011). Taking a different approach, Shivdasani and Wang (2011) argue that growth in securitization markets altered banks'



access to capital, affected their lending policies, and fueled the LBO boom of 2004–2007; the rise in structured credit markets increased the availability and lowered the pricing of bank credit, which in turn heated the LBO market. Axelson et al. (2013) similarly demonstrate that cheap credit markets are associated with increased buyout leverage and activity, which spur higher transaction prices and lower fund returns. Achleitner et al. (2012) enrich these findings by investigating covenants as a central credit term. Ivashina and Sun (2011) show that a contraction of loan spreads (the interest margin paid over London Interbank Offered Rate [LIBOR] for LBO financing) was at the core of the LBO boom that ended in 2007. Fang, Ivashina, and Lerner (2013) point to banks as being a culprit in amplifying the cyclicity of the credit market and thus the buyout market. Bank-affiliated PE groups are substantive players in the buyout market (representing 30% of all PE investments), and they advantageously increase their PE activity during credit market booms.

Looking beyond credit markets, Haddad, Loualiche, and Plosser (2017) focus on equity market conditions and find evidence that fluctuations in buyout volume are driven by changes in the aggregate risk premium demanded by target firms. Their results suggest that equity market conditions (as represented by the risk premium) are an even more significant driver of buyout activity (explaining 30% of the variation in buyout activity) than are credit market conditions (10%). Reinforcing the key role that variation in the risk premium has in buyout activity, Malenko and Malenko (2015) show how the sensitivity of buyout activity to the risk premium depends on uncertainty about PE sponsors' skills. High uncertainty about PE sponsors' skills decreases buyout activity.

*Institutions.* Several elements of the institutional environment impact demand for PE. Pe'er and Gottschalg (2011) examine within-country political heterogeneity in the United States and find that there is a higher likelihood of buyout activity and successful exits in Republican "red states," with the reverse being true in Democratic "blue states." Recent PE literature has also considered country differences. As Li, Wright, and Scholes (2010) describe, the typical PE model (or the "Western buyout model") may need to undergo fundamental changes in different regions. Li et al.'s (2010) examination of MBOs of listed Chinese companies details, for example, the absence of leverage, retention of executives post LBO, dominance of insiders on the board of directors, and independent directors who are reluctant to challenge management. Differences in PE business models are not limited to China—other countries undergoing privatization or a shifting away from central planning have also been considered (e.g., Toms, Wilson & Wright's [2020] historical look at UK privatization). Echoing Li et al. (2010), Taussig and Delios (2015) reveal differences from the traditional Western PE approach in emerging economies, such as PE firms taking only minority stakes in targets and using local relationships as a substitute for contract enforcement. However, the PE approach need not always change with institutional context; Chen and Sun (2019) examine how equity ratchets (performance-contingent equity awards for buyout managers) gained acceptance in and diffused throughout the Chinese PE industry.

Finally, corporate governance processes also vary with the institutional environment. Stuart and Yim (2010) consider how interlocking directorships influence PE activity at US public firms. They show that buyout directors' exposure to PE deals through other board service experiences increases the buyout probability of the focal firm by 42%. The regulatory environment around corporate governance can also impact the attractiveness of PE for target

firms. Badertscher, Jorgensen, Katz, and Kinney (2014) examine audit fees for US firms and find that they are 20–22% greater for public firms than for similar PE-owned firms.

## **Outcomes: What Are the Outcomes of Private Equity Activities?**

Our review of the recent literature on PE activity outcomes surfaced two main themes: (1) investment performance (Metrick & Yasuda, 2011; Phalippou, 2014; Robinson & Sensoy, 2013) and (2) nonfinancial effects (sometimes referred to as “real economic effects”), which include outcomes related to employment, productivity, and innovation (Bacon, Wright, Scholes, & Meuleman, 2010; Tag, 2012).

### *Investment Performance*

*PE Fund Investment Performance.* Prior reviews generally paint an overall positive picture of PE funds’ performance (net of fees) in both absolute terms and relative to the public markets (Kaplan & Sensoy, 2015; Kaplan & Stromberg, 2009; Metrick & Yasuda, 2011; Morris & Phalippou, 2020; Phalippou & Gottschalg, 2009). Harris et al. (2014) suggests that there is a degree of uncertainty associated with assessments of historical PE performance that stems from concerns about data quality (e.g., unrepresentativeness, incompleteness, subjectivity) as well as the unevenness with which PE return data are disclosed (due to the relative lack of regulatory requirements). These unresolved uncertainties have encouraged researchers to continue to investigate PE fund investment performance. Empowered by new data sources (Harris et al., 2014; Robinson & Sensoy, 2013), novel methodological techniques (Ang et al., 2018; Driessen, Lin, & Phalippou, 2012; Korteweg & Sorensen, 2017), and different measures and benchmarks (Franzoni et al., 2012; Harris et al., 2014; Phalippou, 2014), the current literature has largely reinforced PE funds’ superior performance—yet not without surfacing nuances and exceptions in results.

Harris et al. (2014) found evidence that buyout funds consistently exceeded the S&P 500 and other benchmarks (i.e., Nasdaq, small-cap Russell 2000), whereas Phalippou (2014) finds that the average fund outperforms the S&P 500 but underperforms a leveraged small-value index. Ang et al. (2018) also found that their PE fund index largely outperforms the S&P 500 index, but results are neutral when benchmarked to the DFA (Dimensional Fund Advisors) Value mutual fund. Driessen et al. (2012) find no evidence for outperformance when decomposing PE returns into systematic risk exposure (beta) and abnormal performance (alpha).

**Persistence of PE Fund Performance.** Previous findings have discovered persistence in PE fund performance (Kaplan & Schoar, 2005; Phalippou & Gottschalg, 2009), but more recent research generally indicates that, while there is persistence, it has attenuated (Kaplan & Sensoy, 2015). Harris et al. (2014) confirm this attenuation: although they show persistence in pre-2000 funds, they find an absence of persistence post-2000. Reinforcing these findings, Harris, Jenkinson, Kaplan, and Stucke (2018) find evidence using fund-of-funds data that is consistent with a lack of performance persistence, and Sensoy, Wang, and Weisbach (2014) find that LP performance persistence has disappeared in more recent years.

PE fund performance persistence results are not uniformly negative, however. Robinson and Sensoy (2016) find evidence of performance persistence for funds with vintage years through 2005. Korteweg and Sorensen (2017) use a new variance decomposition approach

to examine three types of persistence: long-term, investable, and spurious. They find high levels of long-term persistence but low amounts of investible persistence—which suggests that LPs need more information that goes beyond past fund performance when assessing PE firms and their funds.

*PE Buyout Investment Performance.* Previous reviews have found that buyouts generate significant financial returns (Cumming et al., 2007; Kaplan & Stromberg, 2009; Palepu, 1990; Wright, Gilligan, & Amess, 2009). Recent papers continue to investigate buyout-level investment performance using new or updated data sets (Boucly et al., 2011; Guo, Hotchkiss, & Song, 2011; Harford & Kolasinski, 2014; Lopez-de-Silanes, Phalippou, & Gottschalg, 2015), more representative or complete samples (Boucly et al., 2011; Cohn, Mills, & Towery, 2014; Lopez-de-Silanes et al., 2015), and fresh analytical approaches (Braun, Jenkinson, & Stoff, 2017). Whereas some of these current studies still find positive financial performance results, this is not always the case.

Cohn et al. (2014) use tax return data to enable a more representative sample of public-to-private LBOs. They find little evidence of improvement in post-buyout operating performance (as per ROA and ROS) but do observe some improvement in firms for which financial data are publicly available. They attribute this to the fact that buyout firms with publicly available financial statements (due to IPO or the issuance of public debt) may be systematically better performers than those without. Offering a test of this explanation, Harford and Kolasinski (2014) examine a sample of large buyouts with public debt. Their industry-adjusted ROA results show a median decline of 2.4% from pre- to post-buyout, however. Guo et al. (2011) also study public-to-private LBOs and find that buyouts show large increases in total value on average (via market- and risk-adjusted returns from initial buyout to exit) but only minimal increases (at best) in median operating performance relative to benchmark firms. In contrast, in their study of firms that go private, Aslan and Kumar (2011) find evidence of positive investment performance, such that PE buyout firms improve their profits at a higher rate than the other (non-PE) going-private firms do.

Turning to non-US data, Boucly et al. (2011) find evidence of post-buyout profitability increases whereas Lopez-de-Silanes et al. (2015) find high dispersion in buyout investment results such that one in four buyout investments are “home runs” (i.e., IRRs greater than 50%), but one in ten do not return any money. Lastly, Braun et al. (2017) found that, at the buyout level of analysis, PE fund manager persistence has substantially declined as the PE industry has matured.

### *Nonfinancial Outcomes*

Nonfinancial outcomes reflect the interests of a wider diversity of stakeholders beyond investors. An enduring issue has been whether the PE industry pursues investment performance at the expense of these nonfinancial outcomes (Cumming et al., 2007; Hanly, 1992; Jones & Hunt, 1991; Shleifer & Summers, 1988). Our review revealed five primary categories of nonfinancial outcomes: (1) employment and human resource management, (2) productivity, (3) long-term investment, (4) economic health, and (5) consumer and social welfare. Our objective here is to surface the current empirical evidence about relationships between PE activities and these outcomes.

*Employment and Human Resource Management.* Although reducing labor costs is a prime candidate for increasing earnings in PE buyouts, PE detractors suggest that this approach places employees directly in the crosshairs of buyout restructuring initiatives, making them an unfortunate easy target for overzealous, highly incentivized, cost cutters (Wright et al., 2009). Earlier evidence of the impact of buyouts on employment levels and wages is mixed but generally indicates weakly negative or no effects on employment levels, and weakly positive effects on wages (Bacon, Wright, Ball, & Meuleman, 2013; Tag, 2012; Wright et al., 2009). Current findings fall into two areas: (1) employment and wages and (2) human resource management (HRM).

**Employment and Wages.** In contrast to most previous findings, Boucly et al. (2011) find very large, positive effects of PE on employment. This growth is concentrated in private-to-private deals (versus divisional or public-to-private deals), and they attribute it to the ability of PE to ease capital constraints at buyout firms. In another illustration of evidence supporting PE's beneficial impact, Agrawal and Tambe (2016) find that PE investment brings positive spillover effects for those workers whose roles are impacted by PE's post-buyout IT investment; they acquire new IT-complementary skills that, in turn, positively affect long-term employment prospects and wages.

Davis et al. (2014) perform their investigation at two different levels of analysis and surface mixed results. At the plant level, they find evidence that is consistent with the view that PE buyouts have negative effects on worker employment (3%6% decline) and wages (2.4% decrease). However, their firm-level analysis captures job creation at new plants that the plant-level analysis misses. They show that employment declines by less than 1% at buyout firms, but there is a high rate of job reallocation (14%), which is consistent with the idea that private PE is an agent of creative destruction.

Cobb (2015) identifies a negative effect on compensation, however. He finds that large-block share ownership of active financial investors (like PE firms) relates to lower rates of defined benefit plan utilization, which is a valued employee benefit. Antoni, Maug, and Obernberger (2019) further find that, although buyouts have a negative impact on employment and salary overall, some worker groups fare far worse than others; managers and older employees experience significantly larger post-buyout losses.

**Human Resource Management.** In the papers of our review, the effects of PE activity on HRM outcomes trend to the positive. Bacon et al. (2010) use survey and interview data to show that managers' perceptions of the impact of PE are neutral and positive in HRM areas like union recognition and membership density. Bloom, Genakos, Sadun, and Van Reenen (2012) and Bloom et al. (2015) examine the association between PE ownership and management practices across international contexts and show that PE-owned firms have better management practices (e.g., monitoring, incentives, and decentralization) than almost all other ownership types. However, they find no differences in management practices between PE-owned and public firms or between PE-owned and family firms run by nonfamily CEOs. Results hold in developed and developing countries.

*Productivity.* Consistent with Jensen's (1989) original premise that leveraged buyouts are more efficient, empirical evidence largely indicates that PE ownership corresponds with increases in buyout firm productivity (Cumming et al., 2007; Kaplan & Stromberg, 2009;

Palepu, 1990; Tag, 2012). Davis et al. (2014) find that PE buyouts increase total factor productivity (TFP) by 2.1 log points over the first 2 years post-buyout, and that 75% of these gains stem from closing low productivity plants and reallocating resources to new, high productivity plants. This finding is echoed by Croce and Marti's (2016) study of private family firm buyouts. They find positive effects of PE involvement on productivity growth, especially in firms previously controlled by founders. Bharath, Dittmar, and Sivadasan (2014), however, find that productivity gains in public-to-private PE buyouts might be due to going private more so than PE ownership.

*Long-Term Investment.* Ferreira, Manso, and Silva (2014) model the impact of public and private ownership on firms' incentives to innovate. Their model suggests that short-termism and intolerance of failure create disincentives to innovate in public firms, whereas private ownership creates incentives for innovation. However, recent research has found only modest or no effects of PE on long-run investments such as R&D and innovation (Cumming et al., 2007; Klein et al., 2013; Tag, 2012). Despite having access to digitized patent data, Lerner, Sorensen, and Stromberg (2011) found no evidence of any change in buyouts' level, originality, or generality of patenting, though they did find that the post-buyout patents were more frequently cited. Similarly, while Ughetto (2010) found that the average number of patents granted per firm increases from 1.06 pre- to 1.59 post-buyout, but suggests that these positive effects depend on various characteristics of the buyout transaction and the PE investors. Overall, papers in our review do not support the idea that PE involvement sacrifices the long-term health of the buyout firms (measured via innovation impact) for investors' short-term gain.

*Economic Health.* When studying the effects of PE activities on the health of the economy, recent research emphasizes two areas: (1) buyout bankruptcies and (2) economic fragility and fluctuations.

**Buyout Bankruptcies.** PE detractors maintain that the heavy debt loads borne by buyouts drive managers to undertake high risk and short term-oriented steps that increase the potential for bankruptcy (Fox & Marcus, 1992; Morris & Phalippou, 2020; Shleifer & Summers, 1988). The evidence in our sample generally does not support this thesis, however (Kaplan & Stromberg, 2009; Morris & Phalippou, 2020; Tag, 2012). To illustrate, Boucly et al.'s (2011) study of private-to-private buyouts in France found no evidence of an increased post-buyout bankruptcy rate. Lopez-de-Silanes et al. (2015) similarly found "typical" bankruptcy rates for buyouts in their international sample, and Harford and Kolasinski (2014) draw similar conclusions using a US buyout sample. As opposed to exacerbating buyout firms' financial fragility during economic recession, Bernstein, Lerner, and Mezzanotti (2019) found that PE backing improves buyouts' financial strength and resilience. Compared with their non-PE-backed counterparts, they found that PE-backed firms increase market share, have higher asset growth, reduce investment less, and have greater equity and debt inflows.

**Economic Fragility & Fluctuations.** PE critics argue that buyout firm bankruptcies displace workers, reduce the tax base, and have negative ripple effects on other stakeholders (such as suppliers, lenders, and customers) that weaken the economy (Fox & Marcus, 1992). Recent work examines whether PE activity exacerbates economic fluctuations. Bernstein et al. (2017) investigated the impact of PE involvement on industry performance

across 20 industries in 26 countries and found that industries where PE funds invest grow faster and that this growth does not come at the cost of greater economic cyclicality.

PE does appear to have negative effects on credit markets, however. Fang et al. (2013) found that banks take advantage of credit market booms by increasing their equity investments in PE firms along with their (debt) financing activities, which increases risk and exacerbates the cyclicality of PE investments and the credit market itself. Eisenthal-Berkovitz, Feldhütter, and Vig (2020) found that outstanding bonds (and thus bondholders) experience significant losses when an LBO is announced. They suggest this is because buyouts commonly correspond to a major change in the risk profile of the target (since it takes on a high debt load post-buyout).

*Consumer and Social Welfare.* Few studies prior to the sample frame of our review investigate consumer impact. A prominent exception is Chevalier (1995), which shows that grocery prices may increase or decrease post LBO, depending upon the nature of competition faced by the buyout. Recent literature has started to fill this gap, but with mixed results. On the positive side, Bernstein and Sheen (2016) find evidence among restaurant buyouts that demonstrates improved cleanliness, safety, and maintenance. Environmental effects (pollution externalities) of PE, however, appear to trend neutral to negative. Although Shive and Forster (2020) find no differences between PE-backed and public firms' pollution levels (as per their greenhouse gas emissions), independent private firms emit one-third of a standard deviation less than public and PE-backed firms. Finally, Eaton, Howell, and Yannelis (2020) find decidedly negative social outcomes from PE buyouts in the for-profit higher education sector; profits tripled but students suffered with lower graduation rates, lower loan repayment rates, lower labor market earnings, and higher tuition.

## **Mediating Processes of Private Equity Activities**

As articulated by Jensen (1989), a foundational tenet of private equity's core value proposition is that it can help to solve a litany of potentially serious costs and inefficiencies that stem from the problem of separation of ownership and control.<sup>6</sup> However, in addressing principal-agent issues between targets' pre-buyout owners and managers, PE creates new sources of agency-based frictions. The principal-agent relationship that forms between the LP investors and the GPs has received substantial attention (Johan & Zhang, 2020; Klein et al., 2013; Robinson & Sensoy, 2013), as have the agency relationships between the post-buyout boards and GPs (Phalippou, Rauch, & Ueber, 2018), GPs and debtholders (Harford & Kolasinski, 2014; Ivashina & Kovner, 2011), and LPs and PE placement agents (i.e., brokers in PE transactions) (Cain, McKeon, & Solomon, 2020). Deciphering *how* these relationships mediate the effects of PE on investment and nonfinancial outcomes has been an important research avenue. Researchers have examined four major categories of mediating processes: (1) incentive (mis)alignment; (2) information asymmetries and adverse selection; (3) conflicts of interest and self-dealing; and (4) opportunism, self-interest, and moral hazard.

### *Incentive (Mis)Alignment*

Two areas where the effects of incentive alignment (or misalignment) are especially visible are in the GP-LP relationship and the GP-buyout management relationship. In their investigation of

“Wall Street” and “Main Street” executive compensation and its effects on income inequality, Kaplan and Rauh (2010) estimate an annual PE partner fee income of \$3.4 to \$5.2 mn. Implicit in these payments is the view that pay-for-performance should align manager and owner interests: high-powered incentives for GPs should lead to similarly high returns for their LP investors (Jensen, 1989). PE detractors suggest that the GPs’ fees are too excessive, weakening their incentive to maximize LP returns (Robinson & Sensoy, 2013; Phalippou, 2009). Several papers investigate this potential incentive alignment mechanism by examining the contractual terms in the Limited Partnership Agreement (LPA) that governs the GP-LP relationship (Robinson & Sensoy, 2013; Sorensen, Wang, & Yang, 2014) and the Management Services Agreement (MSA) that specifies the transaction and monitoring fees that GPs receive from the buyout firm (Metrick & Yasuda, 2010, 2011; Phalippou et al., 2018).

Metrick and Yasuda (2010) find that the performance-sensitive portion of the fees only accounts for one-third of GPs’ expected revenue; the remaining two-thirds comes from fixed, performance-insensitive fees. Sorensen et al. (2014) similarly demonstrate that of the LP’s total costs, approximately 25% are due to fixed management fees, 25% are due to the variable carried interest, and 50% are due to long-term illiquidity borne by LPs. They suggest LPs typically only break even once the fees and the illiquidity are appropriately accounted for. Robinson and Sensoy (2013) surface more positive evidence in that PE funds with higher fixed management fees have similar net-of-fee returns as lower-fee funds and that buyout funds with higher carried interest fees outperform. However, they caution that, in spite of these benefits, there are often specific contractual provisions that lead to unintended consequences.

Implicit earnings from expected future fundraising are a form of indirect compensation that is variable and performance-based (Chung, Sensoy, Stern, & Weisbach, 2012; Gompers et al., 2016; Phalippou, 2009; Metrick & Yasuda, 2010, 2011). Chung et al. (2012) provide evidence that LPs use PE funds’ past performance to infer signals about GP ability, which affects GPs’ ability to raise future funds. This indirect pay-for-performance effect is of the same order of magnitude as the direct pay-for-performance from carried interest fees.

Turning to GP-buyout management incentive alignment, Gompers et al. (2016) find that rates of equity ownership by buyout CEOs and management are substantively greater than those in public companies. This is consistent with their survey results, which indicate that PE investors believe that the strong management incentives associated with equity ownership are an important source of value-add at buyout firms. Cronqvist and Fahlenbrach (2013) find that CEO contracts become more performance sensitive post-buyout: 50% of equity grants are performance vesting and, in a large shift, dismissed CEOs typically forfeit their unvested equity. Post-buyout CEO contracts also move away from nonfinancial and earnings-based metrics toward measures based on cash flows. While CEOs’ base salaries and bonuses increase by 25%, on average, perquisites remain largely unchanged (Cronqvist & Fahlenbrach, 2013). Perquisites are additionally examined by Edgerton (2012), who demonstrates that PE-owned firms have jet fleets that are, on average, 40% smaller than similar public firms.

### *Information Asymmetries and Adverse Selection*

Our review of the recent empirical work that considered information asymmetries and adverse selection surfaced three main themes: (1) ramifications of information asymmetries

in asset valuation and performance estimation, (2) tools for countering information asymmetries, and (3) the potential for adverse selection in PE co-investment transactions.

*Valuation and Estimation.* Current research investigates whether PE fund managers take advantage of information asymmetries to overstate fund performance to their LPs. Cumming and Walz (2010) and Driessen et al. (2012) both find evidence of inflated results. Cumming and Walz (2010) highlight that a country's legal context and accounting standards influence managers' reporting biases, such that weaker rules and systems permit more overvaluation. Driessen et al. (2012) find that self-reported net asset values (NAVs) significantly overstate fund values, but Jenkinson, Landsman, Rountree, and Soonawalla (2020) find NAV estimates display little systematic bias, on average, and are generally reliable predictors of their funds' expected future cash flows.

Both Barber and Yasuda (2017) and Brown, Gredil, and Kaplan (2019) explore whether there is a temptation for GPs to inflate current fund performance when fundraising for the next fund. Both papers find support for this, but only for low-reputation or low-performing GPs, because GPs with high reputations and established track records have too much to lose by inflating results. Indeed, top-performing funds appear to understate valuations (Brown et al., 2019). Ferreira, Kraussl, Landsman, Borysoff, and Pope (2019) take a different approach by examining the issue of fair value reporting at the buyout (versus fund) level of analysis. They find that the fair value estimates provided by publicly listed PE funds represent equity book value and net income in a way that is consistent with how stock prices reflect the fundamentals of listed companies; therefore, the estimates are reliable.

*Countering Information Asymmetries.* Recent literature examines several ways in which information asymmetries between PE players may be mitigated. Johan and Zhang (2020) show that more frequent performance reports between GPs and their LPs is associated with greater candor and thus lower information asymmetry. Givoly, Hayn, and Katz (2010) look at the quality of accounting information provided by PE-owned buyout firms that have publicly traded debt (which must file reports with the SEC) and find that, relative to publicly traded firms, PE buyouts have higher quality accruals and a lower propensity to manage earnings.

Engaging third-party intermediaries, such as placement agents (brokers retained by GPs who connect LPs with GPs), is another approach to addressing information asymmetries. Cain et al. (2020) show that there is substantive heterogeneity in placement agent quality and evidence for both the information asymmetry-mitigating and the "influence peddling" views of placement agents. They find that LPs, on average, earn significantly lower returns in funds using placement agents, but also that buyout funds associated with top-tier agents have notably higher returns.

Dyck and Pomorski (2016) consider the role of LP capabilities in mitigating information asymmetries (and their ill effects on outcomes). They find that defined benefit pension plans with large PE holdings earn substantially larger returns because their scale gives them experience, due diligence skills, and information-processing abilities.

Finally, repeated interactions between PE players can reduce information asymmetries and their costs. Achleitner et al. (2012), Ivashina and Kovner (2011), and Malenko and Malenko



(2015) demonstrate how PE firms' repeated and frequent interactions with lenders help to favorably shape loan terms and rates.

*Co-investments and the Potential for Adverse Selection.* A co-investment is when an LP invests directly in a buyout alongside the PE fund (Braun et al., 2020; Fang et al., 2015). Since the LP may only co-invest in deals that GPs make available, co-investment bears the hallmarks of the classic "lemons problem" (Akerlof, 1970). However, recent research has found mixed results concerning whether there is such an adverse selection problem in co-investments. Using a data set of deal cash flows from investments made by large institutional investors, Fang et al. (2015) find that the performance of the co-investments is poor relative to the PE funds with which they invest. However, Braun et al. (2020) find no evidence of adverse selection in co-investments using a novel method comparing the public market equivalent (PME) return distributions of co-investments and fund-only investments.

### *Conflicts of Interest and Self-Dealing*

In studying the potential for conflicts of interest and self-dealing in the PE setting, recent research focuses on three key areas: (1) the GP-buyout relationship, (2) PE firm syndication, and (3) the pre-buyout management-shareholder relationship.

*The GP-Buyout Relationship.* Critics argue that the potential for deleterious conflicts of interests exist because certain fees are being paid by buyout firms whose board members are GPs employed by the PE firm that receives the fees (Phalippou et al., 2018). Phalippou et al. (2018) investigate these fees using the material definitive agreements that companies must disclose, and do not find evidence of GPs using transaction or monitoring fees to divert cash flows out of the buyout, including during times of financial distress. They suggest that once news about high-fee GPs becomes widespread (albeit a slow process), LPs would shift their capital allocations away from these GPs.

*Private Equity Syndication.* PE "club deals," in which two or more PE firms jointly submit a buyout bid, represent a form of market syndication. Club deals are appealing to PE firms for large buyout transactions (due to capital constraints), in risky transactions, or as a certification signal to debt providers (Officer, Ozbas, & Sensoy, 2010). Club deals may also offer participants a chance to remedy skill gaps. For example, Meuleman and Wright (2011) demonstrate that PE firms investing internationally often initially syndicate with local PE investor partners to surmount the barriers posed by unfamiliar institutional environments and to expedite learning about the local context.

However, a major concern with syndication is that it can facilitate collusion among participants (Hatfield, Kominers, Lowery, & Barry, 2020). Although the potential for collusion exists in any type of syndicated market, the concerns over club bidding in the PE context are serious enough to have drawn attention from the U.S. Department of Justice (Marquez & Singh, 2013). The primary issue is whether participating PE firms collude to depress prices by limiting the number of competing bidders in the auction for the target buyout. Officer et al. (2010) find little support for "benign motivations" (such as certification signaling) for club deals, but do find evidence for negative ones such that target shareholders

receive approximately 40% lower premiums in club deals versus sole-sponsored buyouts. Consistent with these negative results, Hatfield et al. (2020) demonstrate that, as market concentration falls, PE firms can sustain collusion by refusing to syndicate with firms that undercut the collusive price. Moreover, Acharya and Johnson (2010) find that as the number of syndicate participants increases, so too do indicators of potential insider trading. Malenko and Malenko (2015) similarly find that club deals can lead to a lower expected value from buyouts and reduced buyout activity. Overall, the evidence suggests that the negative effects of syndication outweigh the positive ones.

*The Pre-Buyout Management-Shareholder Relationship.* Particularly in management buyouts (MBOs), wherein the buyout firm's managers engage with the PE sponsors to arrange the buyout in exchange for equity stakes post buyout, target managers' incentives are strongly aligned with the PE firm (Lowenstein, 1985, 1986; Morrell & Clark, 2010). As a consequence, target management's interests diverge from their fiduciary duty as shareholders' agents to obtain the highest buyout price possible (Palepu, 1990). Indeed, these managers have strong incentive to ensure that the price is minimized (Lowenstein, 1985, 1986). This problem has long been known (DeAngelo, DeAngelo, & Rice, 1984), but the cumulative evidence has been inconclusive (Liu, 2020) and thus continues to demand attention.

Harford, Stanfield, and Zhang (2019) investigate whether managers and controlling shareholders deliberately time MBOs to purchase undervalued targets and find that, on average, MBOs are initiated during periods of industry undervaluation (and thus the average buyout target is also undervalued). Liu (2020) examines the drivers that encourage target firms to obtain a second fairness opinion to alleviate conflicts of interest. A first fairness opinion is usually provided by the investment bank that has been retained by the insiders; some of the bank's advisory fees may be contingent upon completion of the buyout transaction (thereby encouraging rubber-stamping of the insiders' proposed purchase price). Liu finds that obtaining a second, independent valuation has a positive impact on target shareholders' wealth.

### *Opportunism, Self-Interest, and Moral Hazard*

Recent research examines how three closely related mechanisms—opportunism, self-interest, and moral hazard—may mediate the relationships between PE activities and their outcomes. These works each address whether and how PE actors seize advantages by transferring wealth from or adding risks to other stakeholders. Research investigates three key PE activities: special dividends, tax avoidance, and risk shifting to debt providers.

*Special Dividends.* Both Harford and Kolasinski (2014) and Cohn et al. (2014) examine the practice of PE firms granting themselves “special dividends,” which are viewed by PE critics as looting and PE advocates as fair compensation. Harford and Kolasinski (2014) find that special dividends occur less frequently than some observers had previously implied, with only 23% buyouts issuing them. In the cases where special dividends are issued, the buyouts are not associated with higher bankruptcy probabilities, which the authors offer as an indicator that looting is not occurring. Cohn et al. (2014) also surface little evidence for looting via large dividend payouts. Even at the 90th percentile of dividends scaled by transaction value, dividend rates are low: 0.1% in the first post-LBO year and 1.7% in the second.

*Tax Avoidance.* PE has important tax advantages in the United States, including avoiding double taxation of profits, more profits taxed as capital gains, and interest-driven “tax shields” (Jensen, 1989; Lowenstein, 1985, 1986; Nicodano & Regis, 2019; Toms, Wilson, & Wright, 2020). A few studies address whether PE firms try to go beyond these advantages. Badertscher, Katz, and Rego (2013), for example, find that PE-backed firms engage in greater tax avoidance than do private management-owned firms. Transaction and monitoring fees paid by the buyout to the GPs provide an opportunity to avoid additional taxes because these fees are deductible expenses for the buyout firm. Although this should encourage GPs to charge more and higher fees to the buyout, Phalippou et al. (2018) do not find supportive evidence.

*Risk Shifting to Debt Providers.* Situations of moral hazard can arise when PE participants have incentive to increase risk because they will not bear the full costs. Recent research has examined how this phenomenon may manifest in the context of the relationship between the GPs and the debt providers for the buyout. Some recent work has shown that GPs shift risk to debt providers. Achleitner et al. (2012) find that lenders anticipate that PE investors will engage in risk shifting and, in response, preemptively incorporate tighter covenants in credit agreements. Badertscher, Givoly, Katz, and Lee (2019) also demonstrate evidence consistent with the presence of risk shifting. They examine how a firm’s ownership impacts its cost of capital and find that PE ownership is positively associated with the cost of debt. Saunders and Steffen (2011) quantify this risk shifting within the private firm context: they show PE-backed private firms pay 66-bps-higher loan spreads than do other private firms.

## **Moderators: Factors That Affect the Outcomes of PE Activities**

Scholars have identified multiple factors that moderate the relationships between PE activity and its outcomes, which we categorize according to level of analysis: (1) buyout firms, (2) PE fund, (3) PE firm, and (4) environment.

### *Buyout Firms*

The recent PE literature investigates four primary buyout characteristics. First, Humphery-Jenner (2012) examines the moderating role of buyout size on a relative basis and demonstrates that large PE funds have stronger (lower) investment returns when they invest in larger (smaller) buyouts. He attributes these results to the match (or mismatch) between the fund’s capabilities and the buyout’s needs. The second is buyout industry. Eaton et al. (2020) study PE in the for-profit higher education industry and find evidence of a deleterious impact of PE ownership on numerous outcomes pertaining to the student and government stakeholders. These negative findings diverge from much of the literature, which more commonly examines PE in industry settings characterized by low-to-no subsidies, high competition, and high product transparency. The third buyout characteristic is geographic location. Lopez-de-Silanes et al. (2015) find that buyouts achieve lower performance in developing countries and argue that it is due to limited exit options, weaker legal environments, less use of leverage, and high learning costs. In keeping with these explanations, Taussig (2017) examines how PE firm foreignness affects the returns earned by foreign PE firms’ buyout investments in emerging markets. Taussig differentiates between buyout

investment entry activities (which center around the host country) and exit activities (which are tied to the global markets) and provides evidence that the degree of the PE firm's foreignness in the buyout's country location can alternate between serving as a disadvantage when tapping into local resource markets and as a benefit when accessing external global deal markets across the buyout's investment cycle. Finally, the CEO of the buyout also matters. Kaplan, Klebanov, and Sorensen (2012) use a proprietary data set of CEO candidate evaluations to show that buyout CEO success is positively associated with CEO characteristics that reflect resoluteness and execution (e.g., aggressive, proactive, efficiency, high standards, persistence, holds people accountable). Surprisingly, they do not find that interpersonal skills impact buyout firm performance and find that teamwork skills relate negatively.

Our review also surfaced four types of process-oriented moderating factors that pertain to the buyout. First, Boselie and Koene (2010) investigate pre-buyout human resource processes in the period leading up to buyout, which can be a time of upheaval and stress for the target employees, and find that employee involvement HR practices can help to mitigate these adverse effects. Second, PE partners "nearly always" replace the CEO post-investment (Cohn & Flaum, 2016), typically within 9 months. Gompers et al. (2016) also show that PE investors who recruit their own buyout management achieve higher buyout performance on average. Cornelli, Kominek, and Ljungqvist (2013) establish a causal link between CEO termination and buyout performance improvements. Edmans (2011) also ties board monitoring to the termination of unskilled CEOs and the retention of skilled ones.

The third process issue is investment duration. Forty-one percent of PE investments are held for at least 4 years, and nearly 20% for more than 6 years (Lopez-de-Silanes et al., 2015). Buyouts with short holding periods, or "quick flips," have a negative reputation since they can indicate an arbitrage move with little value added (Klein et al., 2013; Tag, 2012). Lopez-de-Silanes et al. (2015) add empirical evidence to this debate, demonstrating that shorter-duration investments (less than two years) are associated with the highest returns. However, Cao (2011) shows that short-duration buyouts experience greater financial distress and performance deterioration post-IPO. He also finds that buyout investment duration is negatively related to hot IPO market conditions, suggesting that the PE buyout sponsors are engaging in market timing.

Finally, there are multiple exit types. Gompers et al. (2016) find that PE investors expect to exit via sale to a corporate buyer approximately 50% of the time, via "secondary sale" to another PE firm 30% of the time, and via IPO 20% of the time. Secondary sales raise questions about what additional value-add another PE firm can bring (Degeorge et al., 2016). The PE seller may be pressured to engage in a secondary sale as a "last resort" as the fund's end date nears. Consistent with the "last resort" explanation, Harford and Kolasinski (2014) find that secondary sale buyouts were typically held for a longer period by their PE sponsors, suggesting that another type of timely exit path is not possible. Buyers in secondary sales might be facing pressure to "burn money" on deals because they are at the end of the investment period (Arcot, Fluck, Gaspar, & Hege, 2015). Degeorge et al. (2016) find that secondary buyouts underperform when the buyers were under such pressure to spend capital, but perform as well as other buyouts when this pressure is absent. Arcot et al. (2015) show that pressured buyers engage in more secondary buyouts and pay higher multiples, and that funds that invested under pressure underperform. They further find that sellers under pressure are more likely to exit through a secondary deal and exit at lower multiples.

## *Fund*

Our review revealed two primary categories of moderators that correspond to the PE fund level of analysis: (1) PE fund characteristics and (2) PE fund processes. Three types of PE fund characteristics serve as moderators: fund size, fund diversification, and size of the GP stake in the fund. The evidence pertaining to PE fund size and performance is decidedly mixed (Lopez-de-Silanes et al., 2015). Harris et al. (2014) and Robinson and Sensoy (2013) do not find evidence of a relationship between fund size and fund performance. Robinson and Sensoy (2016) find support for a positive (increasing and concave) relationship between fund size and performance. In contrast, Humphery-Jenner (2012, 2013) support the diseconomies of scale view, such that larger funds earn lower returns, except when measuring size by the number of buyouts in the fund (wherein fund returns increase). This might be due to increased diversification and GP experience. Relatedly, Marquez, Nanda, and Yavuz (2015) address the puzzle of why PE managers of successful, often oversubscribed, funds do not increase subsequent fund size. They find that once a certain fund size is reached, it becomes too costly to try to earn higher returns for investors.

Humphery-Jenner (2013) shows that industry-based and geography-based diversification each increase fund returns, as measured by IRR. However, he finds that this enhancing effect can turn negative if the fund spreads its staff too thin. Finally, some PE industry observers express concern that the size of the GP ownership stake in the fund (typically 1%) creates inadequate “skin in the game” for the GPs to meaningfully care about fund performance. However, Robinson and Sensoy (2013) find no evidence that funds below the 1% standard underperform. In fact, they outperform.

In terms of PE fund processes, a “fund of funds” (FOF) is a type of financial intermediation that pools LP capital that is then invested across a diversified group of PE funds (here referred to as “direct funds” for clarity). Harris et al. (2018) found that FOFs significantly underperform direct buyout funds and point to the additional layer of fees as the explanation. Nadauld, Sensoy, Vorkink, and Weisbach (2019) examine intermediaries that assist LPs who want to sell their stakes in a PE fund. Sellers bear the relatively high transaction costs in this “secondary market” for PE fund stakes because they are gaining liquidity; buyers generally receive a large discount and thus typically outperform other PE investors (Nadauld et al., 2019).

## *PE Firm*

Recent PE research has showcased four characteristics of PE firms that act as moderating factors: size, strategy, organization, and reputation. Levit’s (2020) theoretical model suggests there are ways that firm size can be beneficial, but the empirical evidence suggests many simultaneous investments stretch the PE firm’s managerial attention and communication demands. Lopez-de-Silanes et al. (2015) find evidence for diseconomies of scale. Drawing upon the attention-based view of the firm and organizational learning theory, Castellaneta and Zollo (2015) find that PE firm’s activity load impairs buyout performance, especially when prior experience is successful or rapidly paced. However, the negative effect of activity load is dampened when PE firms have larger or more homogeneous stocks of prior experience (Castellaneta & Zollo, 2015).

Gompers et al. (2016) explain how the choice of strategy shapes not only the types of activities that the firm engages in, but also the way in which the firm executes them. To

illustrate, DeGeorge et al. (2016) classify PE firms into “margin growers” or “sales growers,” whereas Rodrigues and Child (2010) consider whether PE firms are following strategies of “asset extraction” or “asset renewal.” Rodrigues and Child (2010) propose that an asset extraction strategy (intensification of work and pressure for results, reduced employment security, less investment in employee skills) lead to a deterioration in the quality of employment relations at the PE firms’ buyouts, whereas an asset renewal strategy (enhancing employee discretion, upgrading skills, restructuring) reduces the likelihood of employee relation deterioration. Castellaneta and Gottschalg (2016) show time is central to the effectiveness of “value selection” (identifying and assessing targets) versus “value addition” (coaching and transferring knowledge to targets) strategies; only selection can add value for shorter-duration buyouts because value addition takes time. Hoskisson et al. (2013) develop a four-quadrant typology for PE firm strategic focus, based upon the two dimensions of financial structure emphasis (equity or debt) and portfolio firm scope (focused or diversified), and use it as a springboard to suggest corresponding managerial and policy implications. A relatively new strategic thrust being explored is socially responsible investing (SRI). Crifo and Forget (2013) find that PE firms’ adoption of an SRI-oriented strategy is driven by the need and expectation for increased differentiation, risk reduction, and new value creation sources. How adopting these socially responsible strategies impacts fund performance is yet unknown.

A third PE firm-level moderator is organization. Gompers et al. (2016) found that although the majority of PE firms are organized by industry, over a third are structured as generalists. The authors suggest that industry-based organizational structure and specialization facilitates PE firms’ abilities to identify and evaluate investment opportunities and implement value-added strategies.

Finally, stronger-reputation PE firms should be able to secure a lower cost of debt for its buyout firms. Several papers show that repeated positive interactions between the PE firm and the debt provider foster a favorable perception of the PE firm (Achleitner et al., 2012; Ivashina & Kovner, 2011; Malenko & Malenko, 2015). Demiroglu and James (2010) use several different approaches for measuring PE firm reputation (e.g., total number of deals, PE firm age) and show that reputable PE firms receive lower-cost loans on more favorable terms. Huang, Ritter, and Zhang (2016) pit the “reputation acquisition hypothesis” and the “wealth expropriation hypothesis” head-to-head using the yield spreads on bonds offered by PE-backed companies, and show that PE firms’ reputational concerns actually outweigh potential incentives for any wealth expropriation at the expense of the bondholders of their portfolio companies. Reputation also impacts PE fundraising. Drawing upon signaling theory, Vanacker, Forbes, Knockaert, and Manigart (2020) find that (1) media attention strengthens the relationship between unrealized performance (a weaker signal) and fundraising success, but (2) it has less influence on the relationship between realized performance (a stronger signal) and fundraising.

The recent literature also emphasizes moderators that pertain to managerial factors associated with PE firms. Looking at PE firm partners’ backgrounds, Gompers et al. (2016) found that PE firm founders with financial backgrounds emphasize financial-based value creation approaches, whereas firms with founders with PE or operations backgrounds are inclined toward operational-based value creation. Phalippou et al. (2018) suggest that, because monitoring fees are related to consulting-style work and transaction fees are aligned with investment banking-style work, founders’ prior experience in those areas should be

correspondingly reflected in higher fees in those areas. Results show that having partners with graduate degrees and a consulting background are positively correlated with monitoring fees, but no relationship between founder background in investment banking and transaction fee was found.

Acharya, Gottschalg, Hahn, and Kehoe (2013) look beyond the founders to consider the GPs and how GP background may affect buyout performance. They demonstrate that GPs who are former consultants or industry managers outperform in deals focused on internal value creation, whereas GPs with investment banking or accounting backgrounds outperform in deals characterized by M&A activity. DeGeorge et al. (2016) also consider GPs' professional backgrounds, but in the specific context of secondary buyouts. They classify PE firms as being finance or operations oriented and find that secondary buyouts between PE firms with complementary skills (e.g., both finance oriented) earn positive NPVs for investors, whereas secondary buyouts between PE firms without complementary skills generate negative NPVs.

Employee retention can also impact PE firms. Ivashina and Lerner (2019) connect the profit-sharing practices among partners in PE firms to PE firm outcomes. The distribution of carried interest and share of firm ownership varies widely within and across senior and junior partners. Ivashina and Lerner (2019) show that senior partners with a smaller share of carried interest and ownership are more likely to leave the firm, and these departures are negatively related to the PE firm's ability to raise subsequent funds. Employees can also leave due to "ideological misfit"—that is, when employees' political ideologies diverge from their employer's ideology (Bermiss & McDonald, 2018).

A collection of recent papers uses network theory to investigate a variety of PE firm process moderators. Siming (2014) examines how the ties forged between a PE firm's current employees and their former employers can impact the PE firm's deal sourcing, pricing, and performance success. He finds that, in auction-bidding processes, PE firms with employees who previously worked in the selling investment bank are: (1) more likely to be included in and win the bidding process and (2) earn a higher return on the investment post purchase. Siming (2014) also shows that PE firms can pay lower acquisition prices when the PE firm retains an investment-banking advisor that is connected to the PE firm's employees. Rider (2012) examines how PE firm employees' prior affiliations shape PE firms' co-investment relationships. His results include two key findings pertaining to PE firm co-investments: (1) increasing differences in educational prestige between the two firms' employees decrease co-investment rates and (2) the likelihood of two PE firms forming a co-investment relationship increases with the number of shared prior educational or employment affiliations.

In keeping with Rider's (2012) focus on partner selection in club deals, Meuleman, Lockett, Manigart, and Wright (2010) show that relational embeddedness is an additional factor in partner selection decisions. In contrast to the more typical singular focus on agency costs between the PE investor and the buyout investee ("vertical agency costs"), Meuleman et al. (2010) also consider the possibility of agency costs between the potential PE firm investment partners ("horizontal agency costs"). They show that relational embeddedness is less a factor in partner selection when horizontal agency costs, as proxied by the potential partners' reputations, are low (which positions firms to expand their networks) and that relational embeddedness is more important in partnership decisions when vertical agency costs are high. The authors measure relational embeddedness using the number of

previous club deals (or “syndicates”) in which the focal lead investor and the potential partner firm had participated together in the previous 5 years.

Finally, Mingo, Morales, and Dau (2018) demonstrate that, depending upon the PE firm’s centrality in the regional syndication network, geographic and institutional distances have different effects on the PE firm’s emerging market investment strategy. Network centrality helps PE firms identify promising investment opportunities and absorb knowledge from their regional network partners. However, the informational benefits of centrality become less useful as geographic distance between the PE firm, and the target decreases (Mingo et al., 2018).

### *Environment*

Our review uncovered three categories of moderators pertaining to the external environment: (1) economic factors, (2) institutional factors, and (3) political factors. The economic factors that were earlier identified as being antecedents to PE can also influence their outcomes. For example, Axelson et al. (2013) show that economy-wide availability of debt financing increases buyout leverage, which fuels higher transaction prices, thereby depressing buyout fund returns. Robinson and Sensoy (2016) affirm the established finding that hot PE markets precede poor performance, but only in absolute terms (i.e., using IRR or multiple-based performance measures). When they perform the analysis in relative terms (using public market equivalent, or PME-based, performance measures), the underperformance of funds raised in hot markets substantially (or completely) disappears.

In terms of institutional factors, Cornelli et al. (2013) find clear evidence that corporate governance laws strongly influence PE-backed firm performance. They document the positive performance effects of new laws implemented in post-Soviet Union transition economies that empowered boards to fire CEOs. Cumming, Fleming, Johan, and Takeuchi (2010) find evidence that legal protections drive PE returns in Asia, but also that PE returns are higher in countries with more corruption. The authors suggest that PE managers’ abilities to bring about positive changes in their portfolio firms helps mitigate the costs of corruption, which is consistent with evidence that a PE firm’s locally oriented resources substitute for strong legal institutions (Taussig & Delios, 2015). Johan and Najjar (2010) show that in countries with lower levels of corruption and better legal conditions, PE fund fixed fees are lower whereas carried interest performance fees are higher.

Turning to intellectual property conditions in the institutional environment, Castellaneta, Conti, and Kacperczyk (2017) study how legal protections for trade secrets may impact PE buyout firm valuation. This paper highlights the dual-edged nature of trade secret protection on firm market value: shielding trade secret assets from rivals should enhance value (and command a higher acquisition price), but the reduction in information about the target’s assets and the associated increase in uncertainty about its worth should decrease value. The authors’ nuanced results reflect this tension, such that they find that trade secret protection has a positive effect on buyout valuation in those industries with high mobility of knowledge workers, but a negative impact in industries characterized by high uncertainty in asset values and high risk of poor acquisition investments.

The final set of environmental moderators pertains to political factors. Faccio and Hsu (2017) show that buyouts operated by “politically connected” PE firms significantly boost employment. Their findings support an exchange-of-favors explanation: (1) politically



connected PE firms increase employment during election years and in states with high levels of corruption; (2) increases in employment positively influence incumbent reelection; and (3) buyout firms receive benefits, such as by obtaining government contracts and grants. Andonov, Hochberg, and Rauh (2018) demonstrate that US public pension funds governed by boards that are heavily populated by state-appointed, state-ex officio, and participant-elected trustees invest in PE funds that underperform, and the effect grows worse with finance industry political contributions. Hochberg and Rauh (2013) show that public pension funds overweight their PE investments toward in-state investments that underperform. Returns are lower than their own similar out-of-state investments and comparable investments made in their state by out-of-state investors, which suggests public pension systems are influenced by political pressures to invest in their home states.

### Future Research Directions

The recent PE literature has made impressive progress in advancing our understanding of the PE phenomenon. Substantial strides have been taken toward deciphering the antecedents and outcomes of PE activities, as well as in identifying the mediating processes and moderating factors that influence those outcomes. Yet, there is still much work to be done. Our review reveals that while prospective learning opportunities are numerous and diverse, many share two features in common. The first concerns the controversy that surrounds PE, which, in essence, is centered on the fundamental question of whether PE is value creating or value destroying. As the evidence presented in the outcomes' section suggests, the answer is by no means straightforward. However, many of the most intriguing research directions we surface in our review can help position the field to make gains toward unravelling this puzzle. The second feature that is shared across potential research areas relates to the opportunities that they offer to management scholars. As our review indicates, the finance literature has played a leading role in PE research. Although finance-grounded research has very much to offer, our assessment suggests that the theories, tools, and perspectives of the management tradition will be key catalysts in realizing the promise of the next phase of PE research. Below, we share our recommendations for future directions in PE research. These opportunities, which are derived from our review, are organized according to our antecedents-outcomes-mediators-moderators model.

#### *Opportunities Pertaining to Antecedents*

The recent PE literature has devoted significant research attention to deciphering the supply, demand, and environmental factors that can drive PE activity. As a group, the articles we reviewed have greatly enriched the field's understanding of, for example, firm-level characteristics that lead a firm to become part of the stock of potential buyout targets, LP investors' rationales for interest and investment in PE funds, and explanations for how economic and institutional factors can foster (or deter) participation in the PE market. Mechanisms grounded in agency and financial theory are well represented, and current work has also explored drivers that reflect institutional, stewardship, and resource dependence theory perspectives.

Although our review demonstrates that agency theory is the cornerstone of much of the recent antecedent-oriented research, our assessment also reveals small clusters of scholarly

interest in applying an entrepreneurship perspective to private equity theorizing (e.g. Klein et al., 2013). Our review suggests that antecedent research is ripe for the application of the entrepreneurship view, particularly in the area of supply factors and pertaining to the emergence of PE firms specifically. This research opportunity stems from the fact that antecedent-based work at the individual level of analysis has been underrepresented in the recent literature. Understudied questions include: *Who founds PE firms? What are the characteristics and motives of PE firm founders?* and *Who becomes a PE entrepreneur?* Applying an entrepreneurship lens to these questions is especially meaningful because PE firm founders are (1) engaging in entrepreneurship through business creation and (2) entrepreneurially building their businesses through acquisitions. Some current work, such as Gompers et al. (2016) and Phalippou et al. (2018), has examined the business skill sets and educational backgrounds of PE firm founders, and how that expertise influences the type of strategy the PE firm pursues and the fees that they charge their LPs. Adopting an entrepreneurial perspective to examining PE firm founders is a fresh opportunity that should complement this research.

A related line of inquiry concerns the supply of PE firms themselves, and, even more fundamentally, why this organizational form has emerged. We have incomplete answers to such questions as *Why do PE firms exist?* and *What are the drivers of PE firm formation?* The literature has considered these questions from the purview of governance structure and the benefits that a fund-based, partnership model can provide (such as the tax avoidance advantages and the low initial equity investment required of GPs, e.g., Jensen, 1989; Kaplan & Sensoy, 2015; Metrick & Yasuda, 2011). Yet, applying other theoretical perspectives could shed more light on these questions, and, in turn, potentially help unpack sources of heterogeneity in PE firm performance. Our review indicates that organizational economics and routine-based views of the firm (e.g., Nelson & Winter, 1982) have not yet been applied to the domain of PE firm emergence. In this regard, scholars may find that PE firm formation is less a reaction to a market failure (as Williamson might suggest, 1971), but comes about because the founders are exceptional at executing the routinized PE fund and buyout activity cycles. As noted by Axelson et al. (2013, p. 2223, italics added): “Private equity investors are *expert, repeat*, and largely financially motivated players in capital markets. Over a career executing leveraged buyouts (LBOs), *they arguably make more decisions about firm capital structure than any other agents* in the economy.”

Finally, more research is needed on the PE industry itself. Like most industries, the PE industry is dynamic. As detected in the recent literature, a newer development in the PE industry is that its participants are more frequently playing simultaneous roles. For example, Kaul et al. (2018) and Dittmar et al. (2012) underscore that traditional corporate stakeholders, who previously served strictly as sellers of divisions to PE firms and as acquirers of PE firms' exited buyouts, are now also playing the role of competitor in the market for corporate control. Corporate firms are increasingly vying for the same targets as are PE firms. Similarly, LP investors in PE funds, in addition to acting as co-investors alongside PE firms, are more frequently circumventing the PE intermediary entirely to directly invest in targets (Fang et al., 2015). Investment banks play multiple roles as debt providers, transaction advisors, and PE investors (Aslan & Kumar, 2017). Such role multiplicity can impact the competitive dynamics of the industry, shake the established pecking order of value appropriation, and shift participant incentives. Decoding these PE industry dynamics is a highly relevant and important area for future research.

### *Opportunities Pertaining to Outcomes*

Our review revealed that the recent PE literature has made great strides in documenting the outcomes associated with PE activities. However, although there are richer empirical insights into PE's investment performance and nonfinancial outcomes than ever before, the preponderance of mixed results and the ongoing controversies about the industry's impacts suggest that there is still much to be learned.

Although scholars have deeply engaged with the topic of investment performance, at both the PE fund and buyout levels of analysis, there are still opportunities to improve upon and expand the set of performance measures, benchmarks, and methodological techniques that are commonly employed (Ang et al., 2018; Phalippou, 2014). Further, the results of our review suggest that, although researchers have certainly examined nonfinancial outcomes, this remains a promising avenue for PE research initiatives. As our examination of the literature demonstrates, research on employment and human resources management has long been, and continues to be, a topic of intense interest. To facilitate these investigations, studies are using increasingly large samples at more granular levels of analyses (Bloom et al., 2015; Davis et al., 2014) and leveraging novel data sets (Bloom et al., 2012; Bacon et al., 2010). Recent work not only considers the traditional topics of employment levels and remuneration, but also examines the impact of private equity on such HR-related outcomes as union-manager and employee-manager relations (Bacon et al., 2010) and management practices (Bloom et al., 2015). An emerging stream of work has begun to look closely at differences in employment outcomes by worker type (e.g., younger versus older employees and blue-collar versus white-collar workers, Antoni et al., 2019). Our view is that this type of study and line of questioning, which unpacks average results to decipher the nuance in findings, is a highly fertile area for future research. Our sample of articles for this review was silent on potential disparities in employment and remuneration outcomes by gender or race, for example. Research that widens understanding of how PE impacts employees—their well-being, working conditions, long-term benefits, and employment trajectories—would also start to fill an important void.

Our review also indicates that there is a research gap pertaining to heterogeneity in the buyout's industry and its outcomes. This will be especially important as the PE industry continues to expand into industries that look vastly different from the "old economy" manufacturing-oriented firms that Jensen (1989) envisioned. These include sectors where innovation and intellectual property are critical to success (Lerner et al., 2011) and markets that directly influence the public good, such as education (Eaton et al., 2020). The PE value proposition and business model (as stemming from the premises of Jensen, 1986, 1989) will likely not apply equally well across industries.

A related research opportunity pertains to the effects of PE activities on a variety of stakeholders. Eaton et al. (2020), for example, showcased the importance of investigating student outcomes in the education industry, but much remains to be learned about the impact on customers in other industries. Additionally, we found a near absence of work on the impact of PE activity on suppliers' outcomes, though the potential for supplier effects have long been recognized (Jones & Hunt, 1991; Shleifer & Summers, 1988). As research shifts to examine outcome differences associated with buyout industry heterogeneity, stakeholder type, and other related factors, the data sources and measures will require changes in kind. This itself presents additional opportunities for scholars.

Whereas the lack of mandatory disclosure reporting requirements and the high costs of purchasing commercial offerings can pose barriers to scholars in accessing the data needed to study PE investment performance (Brown et al., 2015; Phalippou, 2014), the arena of non-financial outcomes offers scholars the chance to identify novel sources and creative uses of data. Illustrations from recent research include using publicly available health-code violation data for worker safety measurement and EPA penalties for polluting activities (Bernstein & Sheen, 2016; Shive & Forster, 2020). Scholars should continue to pursue similar innovations.

Measures and measurement will have to adjust as well. For example, using buyout firms' patenting activity to assess long-term investment outcomes (e.g., Lerner et al., 2011) are highly germane when evaluating high-tech buyouts. Research will also need to evaluate the type and level of innovation outcome (e.g., *Is it incremental or radical? Explorative or exploitative?*) and at different levels of analysis (e.g., *What are the consequences of PE firm activities on industry innovation?*). Studying outcomes of buyouts in technology-intensive, investment-heavy sectors also raises the issue of time horizon. Investigation into performance "persistence" in PE fund returns has been one of the most productive streams that embeds a longer-term view (Harris et al., 2018). Future research should likewise examine the nonfinancial outcomes of PE activities over an appropriately lengthy long-term horizon.

### *Opportunities Pertaining to Mediating Processes*

As our review demonstrates, there has been significant recent research interest in investigating the mediating processes that underpin the relationships between PE activities and their outcomes. As a collection, the mediators examined in current work represent many of the classic, often-detrimental, mechanisms that are at the heart of agency theory and the challenges that agency problems can bestow upon its protagonists. Despite their discouraging tenor, the insights that current research provides about these mediators are valuable. Research evidence leaves little doubt that these mediators play an important role in shaping PE outcomes—and in fueling some of PE's more nefarious consequences (providing ammunition for PE's critics).

From the results of our review, we see two major paths for mediator-oriented research. The first pertains to the mediators that have been revealed to date. Future work must provide more specificity around their activation and operation to get a deeper understanding of which mediating processes matter when, and by how much. These mediators can spur serious negative ramifications. Although regulations and policy changes can help reduce such ramifications, it would be folly to paint all PE activities with the same tar brush. Indeed, as our review revealed, PE activities can and do create value. Surfacing nuance and specificity in future mediator research can position the field to help find balanced solutions that accentuate beneficial processes and suppress the damaging ones. Key questions might include: the magnitude of the effect sizes of the mediating mechanisms (e.g., *Which mediators have the influence on the outcomes of interest? The smallest influence?*), the temporal characteristics of the mediators (e.g., *Do different processes matter more at different stages in the PE cycle? Do they demonstrate patterned sequencing?*), and contextual factors that may affect the efficacy of the mediator (e.g., *Do different mediating processes matter more under different circumstances, such as in varying institutional contexts?*). Additionally, following the lead of papers like Badertscher et al. (2013) and Phalippou et al. (2018), another productive line

of inquiry is to build a holistic view of these mediators, such as by unpacking when these mediating processes may reinforce one another and when they may compete with each other.

The second key opportunity for mediator research lies in searching for additional mediating processes that may underlie PE activities. Efforts to expand the suite of mediators under study could surface “positive” value-enhancing mechanisms that current work has deemphasized. Although mediator research to date has origins in agency theory, application of other theoretical perspectives, such as from entrepreneurship (Klein et al., 2013; Wright, Hoskisson, Busenitz, & Dial, 2000) or virtue ethics (which, by definition, encourages consideration of the public good; Moore, 2012; Morrell & Clark, 2010), may reveal other mechanisms. Once identified, in the same way that regulatory policy can be designed to quash “negative” mediating processes, policy may serve to help bring these “positive” value-inducing processes to the fore.

From an empirical standpoint, as a complement to applying new theoretical lenses, qualitatively oriented approaches (such as stakeholder interviews) can be a productive means of discerning mediating mechanisms. Whereas qualitative tools have been far less common, the exceptions—such as Gompers et al.’s (2016) interview- and survey-based study on PE activities and Boselie and Koene’s (2010) HR management case study—have provided valuable, otherwise-unattainable insights.

### *Opportunities Pertaining to Moderating Factors*

Of the four pillars of the antecedents-outcomes-mediators-moderators model, the moderators component is perhaps the one in which management-anchored theories and tools have been brought to bear most frequently and powerfully (e.g., organizational learning in Castellaneta & Zollo, 2015, and network theory in Rider, 2012). Given the types of research gaps and questions surfaced in the context of moderating factors, we believe that a management orientation will continue to offer great promise.

A classic issue in the strategy literature pertains to the extent that value is added at the corporate level of a multi-unit firm (Porter, 1987). This is highly germane to the PE context, and raises the complementary questions of “*Where is the PE firm value-add coming from?*” and “*How much does the PE firm matter, really?*” Several recent moderator-focused studies have started to explore these answers, considering the “corporate parenting” effects of such factors as PE firm reputation (Demiroglu & James, 2010), PE firm partners’ skills (Acharya et al., 2013), and PE firms’ ability to attract syndicate partners (Meuleman et al., 2010). Castellaneta and Gottschalg (2016) applied variance decomposition techniques to evaluate the PE firm effect on buyout performance. Future research needs to build upon the foundation that this emerging collection of studies has built. One pressing area of inquiry concerns how variation in the parent PE firm’s ownership structure—be it a traditional PE partnership, a publicly traded PE firm, a PE division within a bank, or a PE syndicate—enhances or limits parenting benefits (or drawbacks), and thus impacts buyout outcomes.

An equally crucial, complementary area of study pertains to how the impact of PE parenting effects will vary with the buyout’s previous ownership type—public firm, private firm, a corporate division, another PE firm, or even a government (Morris & Phalippou, 2020). For example, a buyout that had previously been tightly integrated into its seller parent may require more resources and attention from its PE firm parent than would a buyout that was a

previously independent, stand-alone public firm. Likewise, a buyout that was formerly under private ownership may have faced capital constraints, which opens numerous pathways for value addition (Boucly et al., 2011). Current research has recognized the importance of the buyout's previous ownership type as a moderating factor (Davis et al., 2014; Kaul et al., 2018), but future work might consider effects across a wider variety of performance and non-financial outcomes. Opportunities also lie in considering previous ownership moderating effects at a more granular level (e.g., *Was the buyout previously owned by a family-controlled private firm or a founder-led private firm?*); such differences could have substantive impact on what resources and capabilities the buyout may require from its new PE investor parent. Additionally, investigation of the impact of the various combinations of paired "matches" between previous buyout ownership type and PE firm type has not yet been addressed. Resource dependency theory may be a valuable point of departure for these questions because different buyout types will have distinct resource needs that certain types of PE parents may be better suited to fill.

Another related future research direction concerns how PE firm-level value creation changes with differences in the surrounding legal and political environments. As PE activities have been rapidly internationalizing, this issue has become ever more salient. For example, as the work of Cumming et al. (2010) and Taussig (2017) indicates, PE firms may be called upon to fill institutional voids and act as a safeguard against corruption in developing countries. In such contexts, these roles may be a major source of value creation for the PE firm and society at large. Comparative studies between developed and developing countries could help to discern some answers, and institutional theorizing might help to guide the direction of future research inquiry.

Research is only in the early stages of addressing how temporary PE parent ownership impacts buyout outcomes, both from an investment and stakeholder perspective. Indeed, PE firms are intentionally designed to be temporary caretakers. Recent research has taken first steps in evaluating investment duration as a moderating factor, but with inconsistent results (Cao, 2011; Lopez-de-Silanes et al., 2015). The field has little insight, for example, into how temporary ownership might impact the ability of buyout firms to secure longer-term commitments from suppliers, customers, alliance partners, and other local economic actors.

Finally, another major research opportunity pertains to environmental, social, and governance (ESG) issues. Key questions in the PE setting include: *Can PE firms successfully pursue a stakeholder, capitalism-based, ESG-oriented agenda? How do diversity, equity, and inclusion (DE&I) initiatives fit in the PE context and business model? Is there a gender gap within the ranks of PE firms? Will LP investors accept lower performance returns from funds that target socially responsible investing (SRI)?* Research has begun to address these questions (e.g., Crifo & Forget, 2013), but the field is only at the beginning of what we believe could be an insightful area of inquiry.

## Conclusion

Private equity has indelibly shaped the business landscape, and its profound influence shows no signs of diminishing. In keeping with its importance, PE has captured the research interest of scholars from a variety of disciplines. Collectively, the striking quantity and rich substance of their work has served to greatly advance our understanding of the PE

phenomenon. What it has yet to do, however, is quell the controversies that encompass PE activities and the nature of their impact. Our goal in this article was to take stock of the recent PE literature, articulate and contextualize its findings, and use those insights as a springboard to help identify new trajectories that research may take. Although this will certainly not resolve extant debates about PE, it does help empower scholars with tools to push in that direction.

We began by adopting an organizing structure through which the extensive findings of recent PE research could be evaluated and integrated. Our examination of current, best-in-class PE research illuminates the antecedents and outcomes of PE activities, as well as the factors that mediate and moderate these relationships. By applying this approach to the recent PE research, we were able to help make sense of findings, their boundary conditions, and the theoretical explanations that underpin them. This framework further positioned us to discern research gaps and thus opportunities for future work. Looking forward, we have no doubts that researchers will continue to “invest” in PE research. We hope that our review of the recent literature and sharing the framework that catalyzed it will serve to assist scholars in their ongoing efforts to decipher PE and its impact.


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## Notes

1. Illiquidity is a point of distinction from hedge funds and mutual funds. Neither hedge funds nor mutual funds demand such illiquidity from their investors. Hedge funds do typically require a lockup period (often 1 year) and a waiting period for fund withdrawals (commonly ~3 months); mutual funds have even more minimal, if any, lockup and redemption restrictions (Metrick & Yasuda, 2011). Other major differences include: longevity (PE funds have a finite life, whereas hedge and mutual funds do not), reinvestments (not offered with PE funds), and fund manager compensation. To the latter point, mutual fund managers earn a percentage of assets under management (AUM) and hedge fund managers earn a percentage of AUM plus a percentage of profits; in contrast, PE fund managers earn asset acquisition/management fees plus carried equity in buyout firms (Klein & Zur, 2009; Stein, 2005).

2. The four journals that the FT dropped in 2016 (but which we retained on our journal search list for completeness) are: *Academy of Management Perspectives*, *California Management Review*, *Journal of the American Statistical Association*, and *RAND Journal of Economics*.

3. Researchers have found that one PE fund will typically make five to fifteen buyout investments (Morris & Phalippou, 2020), or 2.4 buyouts per GP involved with the fund (Metrick & Yasuda, 2010).

4. PE firms may engage in other investment activities that do not require assuming majority control of a buyout target, such as establishing debt funds or making minority investments. These activities are out of scope of this review; see Cumming (2010) and Zeisberger, Prah, and White (2017) for overviews of these additional PE activities.

5. The fixed management fee is usually 1.5%–2% of committed capital, and the “carried interest” performance fee is typically 20% of profits after an ~8% hurdle rate is met. The management fee is paid out annually, whereas the GPs received the carried interest only at the end of the fund’s life. The management fee reflects 50% to 67% of the total cost of fees for the LP (Metrick & Yasuda, 2010; Sorensen et al., 2014). The management and carried interest fees are commonly referred to together as “2 and 20.”

6. Although Jensen framed his theorizing from the perspective of the public-to-private buyout, the problems that private equity was meant to address (and the benefits it may bring) are not limited to public targets alone (Michaely & Roberts, 2012; Sheen, 2020).

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