



Buyout



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I. INTRODUCTION

Private equity firms (“PE firms”) have become common owners of established firms in concentrated markets. PE as an asset class consists of around 4,000 funds with assets under management of more than \$2.45 trillion, of which buyout funds account for 60 percent.² According to Invest Europe, European private equity and venture capital funds raised around €240bn during the years 2012-2016. The total sum invested in European companies by private equity in 2016 was about €52.5 billion, of which buyout investment amounted to €36.5 billion into over 1,000 companies.

Antitrust authorities therefore intervene in mergers and acquisitions involving PE firms. For example, in October 2011 a federal judge in the U.S. stopped H&R Block from acquiring 2nd Story Software, owned by the PE firm TA Associates. The Justice Department argued that the merger would harm competition in the market for digital tax preparation services, which was dominated by only three players (H&R Block, 2nd Story Software and Intuit). There has also been a class action law suit accusing seven PE groups — KKR, Blackstone, TPG, Bain Capital, Goldman Sachs, Silver Lake Partners and Carlyle — of conspiring to fix prices in some of the world’s biggest leveraged buyouts. In November 2014, Judge Young approved settlements related to the class action, which claimed these PE firms teamed up to keep leveraged buyout prices low.

PE firms have also come under the scrutiny of competition lawyers in the European Union. In April 2014 the European Commission found that 11 producers of underground and submarine high voltage power cables operated a cartel, and imposed fines totaling €302 million. The EC found Goldman Sachs’ PE unit to be “jointly and severally liable” with its portfolio company Prysmian. Goldman Sachs was fined €37 million. PE firms have also been fined in the EU Member States. In November 2014, the Dutch regulator ACM imposed fines on a number of firms engaged in cartel conduct in the flour industry. The ACM fined three PE firms €1.9 million for exercising decisive influence over one of their portfolio companies, Meneba, a Dutch flour producer, which was involved in the cartel.

Thus, even though PE firms are not “traditional” parent companies, they can be held responsible for the actions of their portfolio companies if regulators believe that they exercise decisive influence or control over the portfolio company.

In this article, we discuss the antitrust implications of an active PE market and whether there are any special characteristics of PE ownership that are important for antitrust regulation and enforcement. To gain some perspective, we approach the question from three pillars of industrial organization: (i) identifying and blocking mergers that create substantial market power; (ii) detecting and preventing predatory behavior; and (iii) detecting and preventing collusive behavior.

II. MERGER CONTROL

Blocking mergers that hurt consumers is a central part of antitrust regulation in most jurisdictions. PE firms are temporary owners of assets and therefore routinely involved in buying and selling companies. PE ownership is temporary because the funds they raise are structured as limited partnerships with a preset contractual life. Before the fund expires, PE firms have to sell the businesses they acquired with money raised by the fund. PE funds typically run from 10 to 12 years, but the median holding period of a portfolio company is only six years.

Temporary ownership by private equity in concentrated markets can affect incentives to invest in restructuring and reorganizing firms. As we have shown in previous research,³ the fact that the private equity owner will eventually sell the target firm to incumbents increases incentives to restructure the target firm. To see why, first note that an incumbent’s valuation of the target takes account of the incumbent’s profits when owning the target relative to profits when a rival possesses it. A more efficient — restructured — target firm is therefore not only more valuable to an incumbent thanks to the bigger profit stream: the higher value also stems from the threat that a more efficient target will end up in a rival’s hands. When PE firms restructure target firms with the intention to sell them to incumbents, they internalize how the acquisition price is affected by the “carrot” (higher profit as acquirer), as well as the “stick” (lower profit as non-acquirer).

² McKinsey & Company, “A Routinely Exceptional Year: McKinsey Global Private Markets Review,” (2017).

³ Norbäck, Persson, & Tåg “Buying to Sell: Private Equity Buyouts and Industrial Restructuring” CESifo Working Paper Series no. 4338 (2013), Available at SSRN: <https://ssrn.com/abstract=2302493>.

Thus, temporary ownership by PE firms in concentrated markets should be associated with more restructuring in terms of decreased marginal costs, increased product quality or more product variety. Indeed, there is ample empirical evidence that PE firms raise the productivity of the businesses they acquire.⁴⁵ This more aggressive restructuring likely benefits consumers through lower prices and higher quality products.

Temporary ownership by PE firms can also indirectly assist antitrust authorities with merger control, because an active PE market can trigger mergers between incumbents in a merger-stable industry. Consumer surplus-enhancing or welfare-enhancing mergers in an oligopoly may not be privately profitable, which presents antitrust authorities with a problem since they cannot force firms to merge. Our research demonstrates that introducing PE firms as potential acquirers changes the bidding behavior of incumbents.⁶ They now have incentives to outbid PE firms to prevent aggressive reorganization of their rivals. In fact, the mere threat of a PE acquisition — followed by aggressive restructuring to extract a high exit price — acts as a trigger for previously privately unprofitable mergers. If an antitrust authority can prevent mergers that reduce consumer surplus, all mergers triggered by an active PE market are beneficial for consumers.

Finally, an active PE market can also benefit consumers by preventing concentration in an industry. An antitrust authority may want to block an incumbent acquisition because of concerns about increasing concentration. However, blocking acquisitions may come at the cost of forgoing the reorganization of inefficient firms. In the presence of an active PE market, however, by blocking trade sales as an exit route, the antitrust authority can instead allow a PE acquisition and ensure that the exit leads to an IPO, rather than a sale to an incumbent rival. Thus, the antitrust authority can “have the cake” (reorganization) and “eat it too” (retain product market competition). This effect can be of particular importance in developing countries where cross-border PE can serve as restructuring expertise which prepares targets for IPOs or subsequent cross-border M&As.⁷

Some recent empirical research suggests that PE ownership is associated with more aggressive investments and pricing. For instance, Fracassi et al⁸ show that consumers could gain from PE ownership since product market prices remain about constant while product variety increases. There is also some evidence that quality-adjusted prices fall following PE takeovers in the restaurant industry.⁹

III. PREDATORY BEHAVIOR

A second concern of antitrust authorities is that a dominant firm can suppress competition in the market by predatory or entry-detering behavior. There are several economic models showing how a dominant firm can behave in a predatory fashion to enhance its profit in a way that is detrimental to welfare. A crucial prerequisite for predation to be rational is that an incumbent (or predator) has an initial advantage.¹⁰ Such initial advantages for the incumbent may come from an existing customer base, key infrastructure or deep pockets.

Here, the special financial structure of PE firms and their deep-pocket nature may come into play. In fact, this may make PE owned firms both more likely to behave in a predatory way, and to be exposed to predatory behavior.

On the one hand, PE firms have access to resources from the funds they have raised from investors, and they also have good connections to banks and are well versed in raising private debt financing. Indeed, relaxing the financial constraints on targets is a key element of value creation and growth in PE buyouts. As theories of deep pocket predation suggest, this may make PE-backed firms more able to prey on financially weaker rivals, as better relations with financiers might equip them with the necessary endurance to win predatory price wars. On the other hand, the target firms they acquire are typically heavily leveraged. The target firms' high leverage makes PE firms less well equipped to take losses

4 Davis, Haltiwanger, Handley, Jarmin, Lerner & Miranda, “Private equity, jobs, and productivity,” *American Economic Review* 104, (2014): 3956–90.

5 Olsson & Tåg, “Private Equity, Layoffs, and Job Polarization,” *Journal of Labor Economics* 35, (2017): 697–754.

6 Norbäck, Persson & Tåg, Threatening to Buy: Private Equity Buyouts and Antitrust Policy (December 18, 2017). Economics Letters, Forthcoming. Available at: <https://ssrn.com/abstract=3089957>.

7 Baziki, Norbäck, Persson & Tåg, “Cross-Border Acquisitions and Restructuring: Multinational Enterprises versus Private Equity-Firms,” *European Economic Review* 94, (2017): 166–184.

8 Fracassi, Previtore & Sheen, “Is Private Equity Good for Consumers?” Kelley School of Business Research Paper no. 17-12 (2017), Available at: <https://ssrn.com/abstract=2302493>.

9 Bernstein & Sheen, “The operational consequences of private equity buyouts: Evidence from the restaurant industry,” *The Review of Financial Studies* 29, no. 9 (2016): 2387-2418.

10 Fumagalli, Motta & Calcagno, Exclusionary Practices: *The Economics of Monopolisation and Abuse of Dominance*, Cambridge University Press, (2017).

resulting from predatory behavior of rivals. Indeed, competition following buyouts intensifies when rivals are less leveraged.¹¹ This suggests that financially strong rivals can afford to prey on highly leveraged buyout targets.

There are also reasons to expect less predatory behavior from PE-backed firms. PE firms are good at aligning incentives for managers to reduce agency costs in companies. If the previous management had empire-building tendencies, they might have kept prices artificially low or applied predatory practices to maximize market share rather than profits. PE ownership in such a situation may mean that such credible non-rational predatory behavior becomes non-viable, and thus the likelihood of predatory behavior decreases.

In sum, when it comes to predatory behavior, specific circumstances seem to be an important determinant of which mechanism will dominate. PE ownership can either encourage or discourage predatory behavior.

IV. COLLUSION

A third concern motivating antitrust law is that firms may collude to raise prices or protect their markets. Are PE firms more inclined to behave collusively than more permanent owners of assets?

Here the temporary ownership of PE again comes into play, for at least three reasons. First, if the market is collusive, then bidding competition is weak between incumbents for targets up for sale. As we described above, temporary owners will overinvest in order to maximize the exit price. To achieve a high exit price, however, a PE firm needs to have bidding competition. Collusion in the market will generally not facilitate such competition.¹²

Second, aggressive restructuring by a PE firm due to temporary ownership may create highly asymmetric market structures with some rivals becoming fairly small *ex-post*. Research has shown that relatively small firms have low incentives to stay in a cartel. Including an indivisible cost of cartelization, medium asymmetric market structures can be then more conducive to collusion, since they balance the small firms' incentives to stay in the cartel against the need to cover the cartel leaders' indivisible cartelization cost. Thus, unless the PE firm becomes a cartel leader, the risk of collusion seems likely to decrease under PE ownership.¹³

Third, temporary ownership means that PE firms will optimize over a different time horizon compared to more permanent owners. Obara and Zinchenko¹⁴ examine the impact of heterogeneous discounting rates on collusion and show that average discount rates need to be above a certain threshold for collusive behavior to be sustainable. One might suspect that a PE acquisition would reduce the average discount rate due to ownership being temporary, and thus reduce the likelihood of collusive agreements, but a formal analysis seems necessary before drawing any stronger conclusions.

Moreover, in addition to collusion in the product market, another important aspect is potential collusion within the PE industry itself when bidding for target firms. Collusion theory suggests that frequent and long-running interactions might support collusion; cooperation among PE firms might therefore spill over into illegal cooperation. Joint bidding might be motivated on efficiency grounds, but also by limiting the bidding competition for firms. There is no clear evidence of anti-competitive bidding by PE firms: bidding contests in which PE consortiums are involved seem not to have systematically lowered takeover competition or target returns.¹⁵

Finally, it is worthwhile noting that common ownership of firms, as is the case when a PE firm manages several firms in the same fund or across funds, may reduce competitive pressure even absent tacit or formal collusion since incentives to compete may be reduced.¹⁶

11 Chevalier, "Do LBO supermarkets charge more? An empirical analysis of the effects of LBOs on supermarket pricing," *The Journal of Finance* 50, no. 4 (1995): 1095-1112.

12 Norbäck & Persson, "Entrepreneurial Innovations, Competition and Competition Policy," *European Economic Review* 56, no. 3 (2012): 488-506.

13 Ganslandt, Persson & Vasconcelos, "Endogenous Mergers and Collusion in Asymmetric Market Structures," *Economica*, 79 (2012): 766-791

14 Obara & Zinchenko. "Collusion and Heterogeneity of Firms," *The RAND Journal of Economics* 48, no 1. (2017): 230-249.

15 Boone & Mulherin, "Do private equity consortiums facilitate collusion in takeover bidding?" *Journal of Corporate Finance* 17, no. 5 (2011): 1475-1495.

16 Azar, Schmalz & Tecu, "Anti-Competitive Effects of Common Ownership," *The Journal of Finance*, (2018), Forthcoming.

V. CONCLUSIONS

The literature on the impact of private equity ownership on antitrust policy is still in its infancy and more research is needed. However, existing studies support some initial insights of relevance to policy.

If antitrust enforcement is working efficiently, PE ownership should be pro-competitive, since diversity among bidders expands the choices facing antitrust authorities in the enforcement of merger control. In particular, as argued above, temporary ownership by PE firms in concentrated markets should be associated with more restructuring, leading to decreased marginal costs, increased product quality or more product variety. This is likely to benefit consumers.

In areas where antitrust enforcement is more difficult and costly, private equity ownership needs to be more carefully assessed. Concerning the risk of collusion in the product market, it seems likely that PE ownership is not a serious concern. Private equity ownership seems likely to create asymmetries in the product market regarding production costs and time horizons, making collusion harder to sustain. However, collusion within the PE industry itself when bidding for target firms seems more of a concern. Regarding the effects of PE ownership on predatory behavior, different mechanisms point in different directions, suggesting that specific market conditions must be taken into account.

Finally, we think that the existing research on private equity and antitrust clearly suggests that more attention should be devoted to understanding how different forms of corporate ownership affect antitrust policy.

