Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Private Equity–Backed Hospital Investments and the Impact of the Coronavirus Disease 2019 (COVID-19) Epidemic

Frank J. Lexa, MD, MBA, Frank James Lexa

INTRODUCTION

The severe acute respiratory syndrome coronavirus 2 pandemic (SARS-CoV-2 [COVID-19]) has crippled the American medical system in early 2020 by reducing both the demand for and access to elective medical care in much of the nation. In the radiology sector alone, initial forecasts projected that medical revenue could be reduced by as much as 70% because of the outbreak [1]. Although some cities and hospitals were able to build temporary facilities to increase capacity, the urgent need to prepare for an influx of infected persons forced many health care facilities to decrease their bed occupancy to accommodate patients with coronavirus disease (COVID-19) by reducing scheduling for most elective or less urgent health care procedures. The financial burden of COVID-19 on the health care system has been substantial: In Pennsylvania alone, hospitals are reporting losses of $1.5 to $2 billion per month as this article goes to press [2]. The loss of revenue from elective care has already led to furloughs, salary reductions, and loss of benefits for health care workers in many types of institutions across the nation. These have occurred in a wide spectrum of types of private practice and academic settings [3].

This crisis coincides with a period of substantial growth in the corporatization of US health care services over the past decade, which includes hospitals, clinics, urgent care facilities, as well as both primary and specialty care practices [4]. The private equity (PE) investment model has significant known downside risks. The reliance on leveraged buyout financing puts firms at a higher risk of downstream bankruptcy [5]. Herein, we will review how the risks of the model of PE financing have been amplified by the current COVID-19 crisis, which has already led to salary cuts, layoffs, and bankruptcies across the health care industry.

PE BUSINESS MODELS

PE firms are financial firms that raise capital from entities ranging from institutions to wealthy individuals to pension and sovereign wealth funds to invest in companies with the potential to be flipped or turned around at a profit for the firm and its investor groups. These monies are organized into tranches of liquidity by the PE firm, which then puts the money to work on a fixed time horizon for each pool [6]. PE firms use a buy-to-sell business model rather than a long-term shared success, or buy-to-hold, model. Successful PE firms do this by targeting their purchases toward undervalued or underperforming firms (usually private, ie, not currently publicly traded, or occasionally in the process of taking public companies private). The goal is to boost short- and medium-term firm performance by using strategies such as restructuring and hands-on management to build the investment for a sell or liquidity event.

In the best circumstances, the PE model succeeds in building value in the health care enterprise through improved performance, and therefore both the financial firm and its investors see a profit. However, many firms operate by the heavy use of debt financing as they prepare a purchased firm for resale on either the private or public markets. This financial strategy usually leaves a wake of substantial debt for the institution or company that has been turned over. Without a long-term focus on value creation, this can further devolve into what has been criticized as value extraction. That includes multiple tactics such as (1) dividend recapitalization (also called dividend recap), which involves taking on additional debt, usually long term, to pay special short-term dividends back to the PE entity [7], (2) taking revenue out of the hospital by charging fees for active management, which are paid directly to the PE firm, or (3) asset-stripping, defined by activities wherein PE firms sell off assets to extract short-term value upfront without regard to the long-term health

1546-1440/20/$36.00 ■ https://doi.org/10.1016/j.jacr.2020.05.023

of the enterprise [8]. This often leaves a heavily indebted firm behind as the investment firm then moves on to new opportunities [9].

PRIVATE EQUITY ACTIVITY IN US HEALTH CARE

During the past 10 years, the number of PE-backed firms in the United States grew substantially, outnumbering publicly traded companies by around two to one toward the end of the last decade [10]. In 2019, there were over $450 billion worth of deals in the PE sector with a record $1.5 trillion in "dry powder" (unspent capital) that financial houses had on hand to deploy [11]. In the medical sector, PE capital investment in health care in the United States grew 20-fold from just $5 billion in 2000 to $100 billion in 2018. The activity in that last year was composed of 855 deals across a wide variety of health care services [12]. As noted previously, the PE business strategy is often a 3- to 5-year horizon from purchase to sale. The tactics used during the hold period are based on several well-known business models that use leveraged buyouts to create value. The buy and build strategy begins with an investment in a flagship hospital, then proceeds to acquire additional institutions to create an extensive network of related entities. These buyout strategies are often deliberately structured in market size and geography to stay under the radar of antitrust regulators. This is one explanation for the seemingly unrelated nature of some chains of hospitals and clinics. Too strong a focus in one area or sector can bring down a regulatory or political response that would hamper both the short- and also the long-term value of an investment for the firm. However, building a critical mass creates many advantages that the firm can use to extract value, such as negotiating power with payers, purchasing power, and economies of scale as well as selectively closing some facilities to either reduce market overlap or for relative underperformance. A related tactic—with analogous strengths—used by PE firms is known as a roll-up, which involves purchasing many small practices to build a national monolith. This structure allows the firm to realize greater economies of scale that a small practice in a so-called cottage industry would not be able to match.

In the health care arena, these tactics can have severe and even dangerous real-world consequences. Pressures to increase short-term cash flow back to the PE have led directly to tactics such as increased charges for ground and air ambulance usage [13]. A more complex strategy of investing in specialists that are outside of networks has been extended to many types of medical care, resulting in surprise billing to patients who thought that they had paid for insurance but who then find that they are hit with additional bills after routine care [14,15]. An analysis of surprise billing in fields in which it has become pervasive such as anesthesia, pathology, radiology, and some surgery suggests that this may involve as much as $40 billion a year annually [16].

Worse, PE investments in hospitals have led to events such as the bankruptcy of Hahnemann Hospital in Philadelphia owned by Paladin Health care in 2019 [17]. In that case, critics have argued that the investment intended to strip out the value of the real estate under the hospital with little or no likelihood that the PE firm could run it as a going concern with extraction being the primary goal. Also, in 2019, before the COVID-19 outbreak, PE firm investments backed by Blue Mountain Capital were associated with hospital shutdowns and the eventual bankruptcy of two facilities managed by the long-term hospital chain, New LifeCare [18].

PE AND THE COVID-19 CRISIS IN HOSPITALS

In April 2020, in the middle of the COVID-19 crisis in the United States, the PE firm KKR used salary holdbacks for some physicians and furloughs at Nashville-based Envision Healthcare as a way to offset losses in their non-COVID-19 health care revenue streams [19]. Although alternative solutions could have been envisioned, the short-term focus of the PE model led to hard cost cutting rather than more in-depth planning for the future. In this case, things moved quickly, and later that same month, there was speculation in the business press that the debt was distressed and that a restructuring or other event was imminent [20]. In the face of a first quarter loss of 55 million dollars, a report in the Wall Street Journal on May 28th said that bond holders were asked to take a haircut (reduction in value) with ongoing trading suggestive of an expected restructuring [21]. Quorum Health, a for-profit hospital operator, also backed by KKR, had been in financial difficulties before the pandemic. In April, the company filed for Chapter 11 bankruptcy with hopes of restructuring its debt and reducing debt exposure by half a billion dollars [22].

Also in April 2020, Steward Health—a care network owned by the $43 billion PE firm Cerebrus Capital—threatened to close Easton Hospital in Pennsylvania in the middle of the COVID-19 epidemic unless the state provided a $40 million bailout [23]. Playing a game of chicken with the state, Steward gave the governor a midnight ultimatum. On April 30, the state agreed to pay the company $8 million in financial support to keep the hospital open in the short term, at least to last through the worst of the crisis [23]. Less than five weeks later, the hospital was sold to a local nonprofit health network with undisclosed terms and conditions [24].

Despite the above events, the widespread upheaval in US health care may lead to a surge of purchases by PE firms of distressed hospitals and other health care firms. The post-COVID-19 landscape may see more, rather than less, PE activity.

CONCLUSION

The risks of revenue reductions with adverse outcomes for hospitals and physicians are not unique to PE-backed entities. However, the restrictive nature of the PE business model demands an abundance of short-term profits for success. That, in turn, makes it unlikely that an investment firm in this class would consider the use of alternate longer-term strategies—including solutions that would avoid hurting physicians and other employees, particularly in the middle of a crisis. If a firm is not going to be involved in the investment after 10 years, then it is unlikely that the PE investor will be interested in whether the physician culture at a hospital is destroyed. It is also unlikely that much thought would be given to what happens to patients if a hospital goes bankrupt or is turned into commercial real estate for condominium development. These events during the COVID-19 crisis highlight the limits and risks associated with third-party financial investment in health care. In good times, investors and their portfolio companies can do quite well, but in a stress test like this pandemic, key stakeholders, including patients, physicians, other providers, and their communities, can be significant losers.

REFERENCES

1. Palmer WJ. Radiology revenue could drop by up to 70 percent during COVID-19 crisis. Available at: https://www.diagnosticimaging.com/covid-19/radiology-revenue-could-drop-70-percent-during-covid-19-crisis. Accessed May 9, 2020.
2. Sending hospitals into bankruptcy. Wall Street Journal. Available at: https://www.wsj.com/articles/sending-hospitals-into-bankruptcy-11587326607. Published April 19, 2020. Accessed May 8, 2020.
3. Facher L. Amid coronavirus, private equity-backed company slashes benefits for emergency room doctors. *Stat* Available at: https://www.statnews.com/2020/04/01/slashes-benefits-for-doctors-coronavirus/ Published April 1, 20202. Accessed May 8, 2020.
4. Fleishon HB, Vijayasarathi A, Pyatt R, et al. White paper: corporatization in radiology. J Am Coll Radiol 2019;16:1364-74.
5. Ayash B, Rastad M. Leveraged buyouts and financial distress. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3423290. Published July 22, 2019. Accessed May 13, 2020.
6. Barber F, Goold M. The strategic secret of private equity. *Harv Bus Rev*. Available at: https://hbr.org/2007/09/the-strategic-secret-of-private-equity. Published September 2007. Accessed May 8, 2020.
7. Chen J. Dividend recapitalization. Published April 26, 2020. Available at: https://www.investopedia.com/terms/d/dividendrecap.asp. Accessed May 18, 2020.
8. Lexico. Asset stripping. Available at: https://www.lexico.com/definition/asset_stripping. Accessed May 18, 2020.
9. Appelbaum E. How private equity makes you sicker. The American Prospect. Available at: https://prospect.org/health/how-private-equity-makes-you-sicker/. Published October 7, 2019. Accessed May 8, 2020.
10. Tett G. The surprising rise of private capital. *Financial Times*. Available at: https://www.ft.com/content/d083b08e-82c7-11e9-b592-5fe435b57a3b. Accessed May 8, 2020.
11. Karsh M, Robertson B. Private equity is starting 2020 with more cash than ever before Available at: https://www.bloomberg.com/news/articles/2020-01-02/private-equity-is-starting-2020-with-more-cash-than-ever-before Published January 2, 2020. Accessed May 8, 2020.
12. Appelbaum E, Batt R. Coronavirus and the implications of private equity buyouts in healthcare. Available at: https://cepr.net/coronavirus-and-the-implications-of-private-equity-buyouts-in-healthcare/. Published March 24, 20202. Accessed May 8, 2020.
13. Chhabra KR, McGuire K, Sheetz KH, et al. Most patients undergoing ground and air ambulance transportation receive sizable out-of-network bills: an analysis of the prevalence and financial impact of out-of-network billing for ground and air ambulance transportation. *Health Affairs* Available at: https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2019. 01484. Accessed May 19, 2020.
14. Applebaum E. Private equity is a driving force behind devious surprise billing. Available at: https://thehill.com/opinion/healthcare/444011-private-equity-a-driving-force-behind-devious-surprise-billing. Accessed May 18, 2020.
15. Lovisa Gustafsson L, Seervai S, Blumenthal B. The role of private equity in driving up health care prices. *Harv Bus Rev*. Available at: https://hbr.org/2019/10/the-role-of-private-equity-in-driving-up-health-care-prices. Published October 29, 2019. Accessed May 19, 2020.
16. Cooper Z, Nguyen H, Shekita N, Morton FS. Out-of-network billing and negotiated payments for hospital-based physicians: the cost impact of specialists who bill patients at out-of-network rates even though the patients do not choose and cannot avoid these specialists, such as anesthesiologists. Health Affairs Available at: https://www.healthaffairs.org/doi/10.1377/hlthaff.2019.00507 Published December 16, 2019. Accessed May 18, 2020.
17. Lexa FJ. Hahnemann—the fast death of an academic medical center and its implications for US radiology. J Am Coll Radiol 2020;17:82-5.
18. Ellison A. Private equity-owned hospital chain files for bankruptcy. Hospital C Report Available at: https://www.beckershospitalreview.com/finance/private-equity-owned-hospital-chain-files-for-bankruptcy.html Published May 9, 2019. Accessed May 8, 2020.
19. Louch W. KKR-backed health-care provider envision cut salaries, furloughs staff: KKR & Co. acquired Envision less than two years ago in a deal that valued the health-care company at $9.9 billion. Wall Street Journal Published April 8, 2020. Available at: https://www.wsj.com/articles/kkr-backed-health-care-provider-envision-cut-salaries-furloughs-staff-11586386605. Accessed May 8, 2020.
20. Dohertt K. Envision healthcare to consider bankruptcy filing. Bloomberg. Published April 20, 2020. Updated April 20, 2020. Available at: https://www.bloomberg.com/news/articles/2020-04-20/kkr-s-envision-healthcare-said-to-consider-bankruptcy-filing. Accessed May 8, 2020.
21. Gottfried M. Ill-timed health-care buyouts bruise KKR and Blackstone. May 28, 2020. Available at. https://www.wsj.com/articles/ill-timed-health-care-buyouts-bruise-kkr-and-blackstone-11590658201?mod=searchresults&page=1&pos=19. Accessed June 9, 2020.
22. Mensik H. Quorum files for bankruptcy. Available at: https://www.healthcaredive.com/news/quorum-10k-delay-bankruptcy-warning/575491/. Published April 3, 2020. Updated April 7 2020. Accessed May 13, 2020.
23. Hagen K. As coronavirus cases climbed, private-equity-owned hospital demanded bailout: Pennsylvania community hospital

controlled by Cerberus called for $40 million as state prepared to treat Covid-19 patients. The Wall Street Journal. Published April 26, 2020. Available at: https://www.wsj.com/articles/as-coronavirus-cases-climbed-private-equity-owned-hospital-faced-closure-11587893400. Accessed May 8, 2020.

24. Spegele B. Hospital that was private-equity backed sold to local health network Available at: https://www.wsj.com/articles/hospital-that-was-private-equity-backed-sold-to-local-health-network-11591225387?mod=searchresults&page=1&pos=4, accessed June 9, 2020.

Frank J. Lexa, MD, MBA, is from the Radiology Leadership Institute and Commission on Leadership and Practice Development, ACR, Reston, Virginia. Frank James Lexa is from the Cornell University, School of Industrial and Labor Relations, Ithaca, New York

The authors state that they have no conflict of interest related to the material discussed in this article. Dr Lexa is currently the Chief Medical Officer of the Radiology Leadership Institute of the ACR and is the Chair of the Commission on Leadership and Practice Development of the American College of Radiology. He is a nonpartner, non–partnership track employee. Mr Lexa is a nonpartner, non–partnership track employee.

Dr Frank J. Lexa: 306 Gypsy Lane, Wynnewood, PA 19096; e-mail: lexa@wharton.upenn.edu