STACKING THE BLOCKS: VERTICAL INTEGRATION AND ANTITRUST IN THE HEALTHCARE INDUSTRY

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Stacking the Blocks: Vertical Integration and Antitrust in the Healthcare Industry

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For many decades, the U.S. healthcare industry mostly consisted of a diversity of unintegrated physicians, hospitals, and insurers. Over the last 10 to 15 years, vertical consolidations involving providers as well as insurers have brought greater attention to the effects of vertical integration on the cost and quality of healthcare. Attention to vertical integration increased further in 2020, when the Department of Justice and Federal Trade Commission issued the *Vertical Merger Guidelines* in order to describe how the agencies assess potential antitrust concerns and potential efficiencies from vertical transactions. In this article, we discuss different forms of vertical integration among insurers, hospitals, and physicians and the different antitrust considerations and analyses they are likely to raise.

In a well-functioning market, firms seek to profit by producing, as efficiently as possible, goods or services that customers value. This often entails firms pursuing not just technological but also organizational innovation, including pursuit of the most effective extent of vertical integration. Through the choices of end-customers, market competition will then select organizational forms that deliver the greatest value to customers. This may result in a single organizational form or may sustain a variety of organizational forms that compete with one another. For example, Apple's integrated iPhone and iOS compete in a paired fashion against the Android operating system and a variety of mobile device manufacturers. By the same token, within healthcare, Kaiser is a vertically integrated health insurer-provider organization that competes with the non-integrated offerings of insurers that largely rely on arms-length contractual agreements with providers. The efficacy of market competition at selecting organizational forms that deliver value to customers depends on at least two conditions. First, there must be sufficient competition throughout the value chain to spur firms to compete vigorously. Second, firms' paths to greater profitability must coincide with delivering greater value to customers. The first condition highlights the role for antitrust policy. The second highlights the need for an institutional and regulatory environment that aligns firm incentives with consumer welfare.

For many decades, the U.S. healthcare industry mostly consisted of a diversity of unintegrated physicians, hospitals, and insurers. Over the last decade or so, vertical consolidations involving insurers as well as providers have brought greater attention to the effects of vertical integration on the cost and quality of healthcare. The 2020 Department of Justice ("DOJ") and Federal Trade Commission ("FTC") *Vertical Merger Guidelines* ("VMG") provide a framework for assessing potential antitrust concerns that is generally applicable across industries and types of vertical transactions. Antitrust analysis of mergers, whether horizontal, vertical, or both, must take into account the specific details of the industry and the regulatory framework that governs the incentives of industry participants. The healthcare industry, for example, has a number of features that complicate antitrust analysis. Because of insurance, most healthcare end-customers do not pay the full prices of the healthcare services they receive. Most end-customers also do not possess the information required to choose the care they need and instead rely on their physician as an agent. These features create incentives that vary throughout the supply chain, from hospitals on one end, to payers on the other, with physicians in the middle. Because the healthcare value chain has more than two levels, a vertical merger can take many forms — including different pairwise mergers of entities at distinct levels of the value chain or an already partially integrated entity moving into a new level of the value chain. Mergers yielding different vertical configurations may generate distinct competitive effects and efficiencies.

In this article, we discuss different forms of vertical integration among insurers, hospitals, and physicians and the different antitrust considerations and analyses they are likely to raise. We focus on recent examples of vertical integration that have drawn scrutiny from antitrust enforcement agencies and other interested parties: hospital-physician integration, insurer-physician integration, and full vertical integration of all three. We summarize potential efficiencies and concerns associated with each type of integration and relevant empirical research. While outside the scope of this article, similar considerations arise in integration among other branches of the healthcare industry, such as among insurers, pharmacy benefit managers, and pharmacies (e.g. the recent mergers between Aetna and CVS and between Cigna and Express Scripts).

I. HOSPITAL-PHYSICIAN INTEGRATION

Hospital acquisitions of physician practices have grown steadily over the last two decades. As of 2018, 44 percent of physicians were employed by hospitals (up from 26 percent in 2012) and 31 percent of physician practices were owned by hospitals (up from 14 percent from in 2012).[2] In response to this and other market trends, in January 2021, the FTC announced that it had required six insurers to submit claims data spanning 2015–2020 so the agency could study the effects of healthcare provider consolidation.[3] The study aims to develop evidence on the effects of consolidation among healthcare providers — physicians, hospitals, and outpatient facilities — on the "proper functioning of healthcare markets." The FTC will review horizontal mergers among physician practices and among facilities, as well as vertical mergers between physician practices and healthcare facilities.[4] This is especially notable because, while there have been many hospital acquisitions of physician practices in recent years, few have been challenged or even investigated by the FTC. Most such acquisitions fall below the HSR thresholds for mandatory reporting, which likely explains this lack of systematic antitrust enforcement in this area.[5] One partial exception is *St. Luke's-Saltzer*, which the FTC successfully challenged retroactively, *on horizontal grounds*, due to overlap between the parties' adult primary care physician ("PCP") practices. St. Luke's main rival, St. Alphonsus Medical Center, challenged that same merger under a vertical theory of harm by which the acquired PCPs would have had an increased incentive to refer patients to the acquiring hospital system, thereby foreclosing rival hospitals such as St. Alphonsus from patient referrals. The FTC did not join in the vertical portion of the complaint, and the court concluded that it did not need to consider vertical issues to order a divestiture.[6]

Physician integration with hospital systems has the potential to generate benefits. It may promote greater care coordination. For example, integration of electronic health records between physicians and hospitals could facilitate more efficient exchange of patient clinical data. More generally, when one level of the value chain can benefit from coordination with other levels of the value chain, especially if tacit knowledge is important and complete contracts cannot be written, combining entities within a single firm through vertical integration may outperform arms-length interactions.[7] Finally, since physician and hospital services are complements, rather than substitutes, economic theory predicts that a firm selling both would have an incentive to lower prices.

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2 Physicians Advocacy Institute, "Updated Physician Practice Acquisition Study: National and Regional Changes in Physician Employment 2012–2018," Feb. 2019, http://www.physiciansadvocacyinstitute.org/Portals/0/assets/docs/021919-Avalere-PAI-Physician-Employment-Trends-Study-2018-Update.pdf?ver=2019-02-19-162735-117. See also Michael F. Furukawa et al., "Consolidation of Providers into Health Systems Increased Substantially, 2016–18," *Health Affairs* 39, no. 8 (2020): 1321–1325, https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.00017; David M. Cutler & Fiona Scott Morton, "Hospitals, Market Share, and Consolidation," *JAMA* 310, no. 18 (2013), https://scholar.harvard.edu/files/cutler/files/jsc130008_hospitals_market_share_and_consolidation.pdf.

3 FTC, "FTC to Study the Impact of Physician Group and Healthcare Facility Mergers," Jan. 14, 2021, https://www.ftc.gov/news-events/press-releases/2021/01/ftc-study-impact-physician-group-healthcare-facility-mergers.

4 *Id.* For a discussion of the vertical linkage between hospitals and physicians, see Thomas Greaney and Douglass Ross, "Navigating Through the Fog of Vertical Merger Law: A Guide to Counselling Hospital-Physician Consolidation under the Clayton Act," *Washington Law Review* 91, no. 1 (2016): 206–207, https://digitalcommons.law.uw.edu/cgi/viewcontent.cgi?article=4947&context=wlr.

5 Cory Capps, David Dranove & Chris Ody, "Physician Practice Consolidation Driven by Small Acquisitions, so Antitrust Agencies Have Few Tools to Intervene," *Health Affairs* 36, no. 9 (2017): 1556–1563. The FTC has investigated hospital acquisitions of physician groups, but those have been horizontal merger investigations that came about because a hospital system with an existing physician group had acquired or was seeking to acquire one or more competing physician practices — that is, these were horizontal cases and the vertical aspect was largely incidental.

See FTC, "FTC Bureau of Competition Director Issues Statement on Providence Health & Services' Abandonment of Its Plan to Acquire Spokane Cardiology and Heart Clinics Northwest," Press release, Apr. 8, 2011, https://www.ftc.gov/news-events/press-releases/2011/04/ftc-bureau-competition-director-issues-statement-providence; FTC, "FTC Order Will Restore Competition for Adult Cardiology Services in Reno, Nevada," Press release, Aug. 6, 2012, https://www.ftc.gov/news-events/press-releases/2012/08/ftc-order-will-restore-competition-adult-cardiology-services-reno; FTC, "Healthcare Provider in St. Cloud, MN Settles FTC Charges That Its Acquisition of Rival Provider Would Likely Lessen Competition for Certain Physician Services," Press release, Oct. 6, 2016, https://www.ftc.gov/news-events/press-releases/2016/10/healthcare-provider-st-cloud-mn-settles-ftc-charges-its; FTC, "After Healthcare System Sanford Health Abandons Acquisition of North Dakota Healthcare Provider Mid Dakota Clinic, FTC Dismisses Case from Administrative Trial Process," Press release, July 9, 2019, https://www.ftc.gov/news-events/press-releases/2019/07/after-healthcare-system-sanford-health-abandons-acquisition-north.

6 *Saint Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke's Health Sys.*, Findings of Fact and Conclusions of Law, No. 1:12-CV-00560-BLW (D. Idaho, filed Jan. 24, 2014), https://www.ftc.gov/system/files/documents/cases/140124stlukesfindings.pdf, 49–50.

7 Oliver Williamson, "The Vertical Integration of Production: Market Failure Considerations," *American Economic Review Papers & Proceedings* 61, no. 2 (1971): 112–123. Williamson argued that "In more numerous respects than are commonly appreciated, the substitution of internal organization for market exchange is attractive less on account of technological economies associated with production but because of what may be referred to broadly as 'transactional failures' in the operation of markets for intermediate good."

Economic research to date, however, indicates that integration between hospitals and physician groups more commonly results in higher prices and spending for hospital and physician services.[8] Capps, Dranove & Ody (2018) find evidence of post-acquisition price increases, about half of which are attributable to exploitation of payment rules that reimburse services performed in a hospital setting at higher rates than when the same or similar services are provided outside the hospital, such as in a physician office.[9] Carlin, Feldman & Dowd (2016) study the acquisition of three multispecialty clinic systems in Minnesota and find similar results.[10] Neprash et al. (2015) find that regions with greater increases in hospital-physician integration experienced significantly greater increases in outpatient prices and spending.[11] Robinson & Miller (2014) find that hospital ownership of physician groups is associated with significantly higher total expenditures per patient compared with physician-owned organizations, and that the increase is larger for hospital systems than local hospitals.[12]

Hospital-physician integration could lead to higher prices and spending through several mechanisms. First, as discussed above, systems may be able to exploit site-of-service payment rules to bill services at a higher rate.[13] An open question is whether obtaining greater revenue by exploiting payment rules constitutes an exercise of market power. Consider a hospital acquisition of a physician practice that allows the new entity to bill some of the practice's services at the hospital's higher rates. In the first instance, this may simply reflect the new entity taking advantage of a contractual loophole. But if the increase persists into new, renegotiated contracts, then it more likely reflects an exercise of market power.[14] Even if changes in prices due to site-of-service rules do not reflect market power, they could potentially be counted against any efficiencies claimed by the parties.

Second, hospital systems may be able to negotiate higher prices for physician services than the practices are able to themselves. The acquiring hospital systems may possess greater bargaining skill than the physician groups.[15] Alternatively, if a hospital with market power were setting prices below the profit-maximizing level (e.g. to avoid regulatory oversight, bad publicity, or challenges to its nonprofit status), it could leverage that pre-existing market power to raise the prices of acquired physician groups through tying.[16] It is not clear, however, that either mechanism would constitute an antitrust violation, even if the result is higher prices to consumers, since the cause is not lessened competition among firms.

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8 See also, Jaime S. King & Erin C. Fuse Brown, "The Double-Edged Sword of Health Care Integration: Consolidation and Cost Control," *Indiana Law Journal*. 92, no. 1 (2016): 55–112, https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=11232&context=ilj.

9 Cory Capps, David Dranove & Christopher Ody, "The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending," *Journal of Health Economics* 59 (2018): 139–152.

10 Caroline S. Carlin, Roger Feldman & Bryan Dowd, "The Impact of Hospital Acquisition of Physician Practices on Referral Patterns," *Health Economics* 25 (2016): 439–454.

11 Hannah T. Neprash et al., "Association of Financial Integration between Physicians and Hospitals with Commercial Health Care Prices," *JAMA Internal Medicine* 175, no. 12 (2015): 1932–1939, https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2463591.

12 James C. Robinson & Kelly Miller, "Total Expenditures per Patient in Hospital-Owned and Physician-Owned Physician Organizations in California," *JAMA* 312, no. 16 (2014): 1663–1669, https://jamanetwork.com/journals/jama/fullarticle/1917439.

13 Greaney & Ross, *supra* note 4, 227–237.

14 In the *St. Luke's/Saltzer* matter, the parties' business documents projected that St. Luke's would be able to increase revenue by billing certain ancillary services as "hospital-based" rather than "Saltzer-based." The FTC's expert testified that St. Luke's increased market power over physician services would "give St. Luke's the ability to make these higher rates [from facility-based billing] 'stick' in future contract negotiations." Findings of Fact and Conclusions of Law, https://www.ftc.gov/system/files/documents/cases/140124stlukesfindings.pdf, ¶¶ 121–129.

Although the district court agreed, the Ninth Circuit did not, because "the district court made no finding about St. Luke's market power in the ancillary services [i.e., the services subject to hospital-based billing] market." Opinion, *Saint Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775 (9th Cir. 2015), https://www.ftc.gov/system/files/documents/cases/150210stlukeopinion.pdf, 19–20. This appears to misapprehend the FTC's point, which was that increased market power in a *physician services market* (not an ancillary services market) could allow the combined entity to increase the effective price of ancillary services through hospital-based billing. From an economic perspective, focusing on changes in the total amount of payments for a given volume of services is more logical than focusing on the specific payment mechanism.

15 Matthew S. Lewis & Kevin E. Pflum, "Hospital Systems and Bargaining Power Evidence from Out-of-Network Market Acquisitions," *RAND Journal of Economics* 48, no. 3 (2017): 579–610.

16 Gregory Vistnes & Yianis Sarafidis, "Cross-Market Hospital Mergers: A Holistic Approach," *Antitrust Law Journal* 79, no. 1 (2013): 253–293, n. 69.

While the joint pricing of complements promotes lower prices in general, Peters (2014) identifies a mechanism through which tying negotiations for physician and hospital services could raise prices.[17] He shows that upstream suppliers that are not substitutes for one another (e.g., a hospital and physician group) can enhance their bargaining leverage with downstream firms (e.g., insurers) by bargaining jointly if they are able to recapture some lost volume through other downstream intermediaries (e.g., other commercial insurers) in the event of a disagreement.[18] The logic is as follows. When an insurer reaches an agreement with one provider, that raises the value of the insurer's network and attracts additional enrollment. This increases the value to other providers in the same geography of being in that insurer's network, since it gives them access to more enrollees. Joint bargaining by providers, even if they are not themselves substitutes for patients, internalizes this effect, allowing the joint entity to obtain higher prices in negotiations. While this is not a strictly vertical effect, since the merging upstream suppliers need not be vertically related, it would constitute an enhancement of bargaining leverage by the merging parties that could result in price increases.[19]

Finally, prices and spending may increase, or decrease, due to potential changes in physician referral patterns. The acquired physician group may internalize the acquiring hospital systems' profits and increase referrals to it.[20] This can lead to higher spending if the hospital system is more expensive than its rivals or if utilization of hospital services increases. This may also lead to greater market power for the acquiring hospital through foreclosure effects.[21] In particular, physician referrals and services are inputs into hospital services, and the acquiring hospital may weaken competition if the acquired physician practice denies either referrals or services to rival hospitals. Such foreclosure could be harmful even if the acquiring hospital does not have higher prices or lower quality services compared to alternatives.[22]

17 Craig Peters, "Bargaining Power and the Effects of Joint Negotiation," (2014), https://www.justice.gov/sites/default/files/atr/legacy/2014/09/26/308877.pdf. See also, Esther Gal-Or, "The Profitability of Vertical Mergers between Hospitals and Physician Practices," *Journal of Health Economics* 18 (1999): 623–654.

18 Peters also cites anecdotal evidence that industry participants believe that hospitals and physicians bargaining together could enhance their market power: "Based on interviews with representatives of hospitals, physician groups, health plans, and other health industry participants, Berenson et al. (2010) conclude that 'one clear goal of an alliance between hospitals and physicians is to improve negotiating clout for both.' Similarly, Berenson et al. (2012) report that 'Respondents from health plans and provider organizations agreed that hospitals negotiating on behalf of their employed physicians are able to obtain higher prices for physician services than can be achieved by independent physician practices. Some plan respondents reported that having a large employed physician contingent also increased hospital leverage over rates for hospital services.'" *Id.* 2.

19 In this sense, this constitutes a "cross-market" effect across apparently distinct product markets rather than geographic markets, as is more commonly considered in mergers among hospitals with non-overlapping service areas. Vistnes & Sarafidis, *supra* note 16; Leemore Dafny, Kate Ho, & Robin S. Lee, "The Price Effects of Cross-Market Mergers: Theory and Evidence from the Hospital Industry," *RAND Journal of Economics* 50, no. 2 (2019): 286–325.

20 Baker, Bundorf, & Kessler (2014) found empirical evidence that hospital acquisition of physician groups affects patient referral patterns. Specifically, the acquired group's patients are more likely to choose the acquiring hospital for inpatient services after the merger, including when the hospital is high-cost or low-quality. Laurence C. Baker, M. Kate Bundorf & Daniel P. Kessler, "Vertical Integration: Hospital Ownership of Physician Practices Is Associated with Higher Prices and Spending," *Health Affairs* 33 (2014): 756–763.

21 Recent enforcement actions by the DOJ and FTC have focused on theories of vertical harm through foreclosure-type effects. Complaint, *United States v. AT&T Inc., DirectTV Group Holdings, LLC, and Time Warner Inc.*, No. 1:17-cv02511 (D.D.C. Nov. 20, 2017), https://www.justice.gov/atr/case-document/file/1012916/download; Complaint, *In re UnitedHealth Group Incorporated et al.*, FTC Docket No. C-4677 (Jun. 19, 2019), https://www.ftc.gov/system/files/documents/cases/181_0057_c4677_united_davita_complaint_6-19-19.pdf; Complaint, *In re Illumina, Inc., a corporation and GRAIL, Inc., a corporation*, FTC Docket No. 9401 (Mar. 13, 2021), https://www.ftc.gov/system/files/documents/cases/redacted_administrative_part_3_complaint_redacted.pdf.

22 Martin Gaynor, "Is Vertical Integration Anticompetitive? Definitely Maybe (But That's Not Final)," (2005), http://www.andrew.cmu.edu/user/mgaynor/Assets/Gaynor%20JHE%20VI%20Editorial%201.pdf. "Since physicians and hospitals complement [each] other in producing health care treatments, it is possible that integration could have a foreclosure effect. Integration could foreclose rival hospitals from access to doctor services, or it could foreclose rival physician practices from hospital services. This can increase market power."

This was, essentially, the private plaintiffs' theory of harm in the FTC's challenge to the *St. Luke's/Saltzer* transaction. See Greaney & Ross, *supra* note 4, 210–211.

II. INSURER-PHYSICIAN INTEGRATION

There are other forms of vertical integration beyond just hospitals and physicians, such as joint ownership of pharmacies and insurers or of insurers and physician groups, either with or without hospitals. Examples of the latter include Kaiser, Geisinger, and efforts by traditional insurers to acquire physician groups. In the latter category, UnitedHealth Group (through its Optum subsidiary) has led the trend nationally, but insurers like Centene, Humana, and Anthem have also recently acquired or entered joint ventures with physician groups.[23] Insurer-physician integration itself is not new to the US healthcare system, and examples go back at least to the 1980s when insurers like Aetna, Cigna, and Humana employed physicians as part of their HMO offerings.[24] These entities did not survive over the long term, and most insurers eventually divested their physician practices. Recent instances of insurer-physician vertical integration may, at least in part, be spurred by a strategic need of insurers to defend against hospital-physician integration or to offer a more insurer-centric care delivery model.

Public records of antitrust investigations of insurer-physician vertical integration are limited, but at least one recent FTC case included a vertical theory of harm. In 2019, the FTC, citing both horizontal and vertical concerns, challenged UnitedHealth's $4.3 billion acquisition of DaVita Medical Group and required divestiture in Nevada.[25] In addition, the Colorado Attorney General challenged that same transaction in Colorado Springs on solely vertical grounds and ultimately obtained a set of conduct restrictions but no divestiture.[26] Two FTC commissioners, Rohit Chopra and Rebecca Slaughter, endorsed the vertical theory of harm but opted out of challenging the transaction in Colorado because of the state Attorney General's action.[27]

While federal and state action related to the United Health-DaVita merger sheds some light on how antitrust agencies evaluate competitive effects in insurer-physician transactions, empirical literature examining the impact of such transactions on competition and consumer welfare is scant. This limits confidence in predicting market outcomes from insurer-physician integration. Economic theory and past industry experience, however, do identify some potential competitive concerns and potential benefits.

When insurers and physicians are integrated, incentives differ from those at issue in hospital-physician integration. In the largely fee-for-service model that still predominates, hospitals and physicians generally face similar incentives: for both, greater service volume generally implies greater revenues and profits. Insurers, however, benefit from lowering healthcare costs and spending on healthcare services received by enrollees: reductions in healthcare spending will increase insurer profits and can lower enrollee costs, including premiums.[28] Because physicians serve as agents of end-consumers and guide their utilization of healthcare services, acquisition of primary care practices by insurers has significant potential to shift incentives towards reducing healthcare spending. A value-based payment system has long been advanced as a solution to

23 Shelby Livingston, "Reigniting the Physicians Arms Race, Insurers Are Buying Practices," *Modern Healthcare*, June 2, 2018, https://www.modernhealthcare.com/article/20180602/NEWS/180609985/reigniting-the-physicians-arms-race-insurers-are-buying-practices; Anna W. Mathews, "Physicians, Hospitals Meet Their New Competitor: Insurer-Owned Clinics," *Wall Street Journal*, Feb. 23, 2020; Paige Minemyer, "Humana, Private Equity Firm Team Up to Open Medicare-centric Primary Care Clinics," *Fierce Healthcare*, Feb. 3, 2020, https://www.fiercehealthcare.com/payer/humana-private-equity-firm-team-up-to-open-medicare-centric-primary-care-clinics; Shelby Livingston, "Blue Shield of Calif. Company Altais to Acquire Large Physician Group," *Modern Healthcare*, Apr. 10, 2020, https://www.modernhealthcare.com/mergers-acquisitions/blue-shield-calif-company-altais-acquire-large-physician-group.

24 Lawton R. Burns, Jeff C. Goldsmith & Aditi Sen, "Horizontal and Vertical Integration of Physicians: A Tale of Two Tails," *Advances in Health Care Management* 15 (2013): 39–117, https://www.semanticscholar.org/paper/Horizontal-and-vertical-integration-of-physicians%3A-Burns-Goldsmith/b547ed1ba669bb64ab6956513ab43f074c5c2b7e.

25 FTC, "FTC Imposes Conditions on UnitedHealth Group's Proposed Acquisition of DaVita Medical Group," Press release, June 19, 2019, https://www.ftc.gov/news-events/press-releases/2019/06/ftc-imposes-conditions-unitedhealth-groups-proposed-acquisition.

26 Complaint, *State of Colorado ex rel. Philip J. Weiser, Attorney General v UnitedHealth Group Inc. and DaVita Inc.* (D. Colorado El Paso Cty., filed June 19, 2019), https://coag.gov/app/uploads/2019/06/2019-06-19-08-00-13-United-DaVita-Complaint-final.pdf; Consent Judgment, *State of Colorado ex rel. Philip J. Weiser, Attorney General v UnitedHealth Group Inc. and DaVita Inc.* (D. Colorado El Paso Cty, filed June 19. 2019), https://coag.gov/app/uploads/2019/06/2019-06-19-08-04-30-UHC-DaVita-CO-consent-judgment-final.pdf.

27 "We believe the evidence uncovered by Commission staff demonstrates that the vertical merger of United's health insurance and [DaVita Medical Group]'s healthcare services businesses would likely result in actionable harm to competition in Colorado. We were prepared to challenge the transaction in court, given the likelihood of harm. . . . Fortunately, the Attorney General of Colorado has taken action in an effort to address some of the harmful effects of the merger in a separate action." Statement of Commissioners Rohit Chopra & Rebecca Slaughter in the Matter of UnitedHealth Group and DaVita, Commission File No. 181-0057, June 19, 2019, https://www.ftc.gov/system/files/documents/public_statements/1529359/1810057uniteddavitachopraslaughterstatement.pdf.

28 For an insurer, lower spending on healthcare services acts as a decrease in marginal costs and can increase profit margins holding premiums fixed or result in greater customer volume for the insurer (and savings to customers) if some of the reduced spending is passed through in the form of lower premiums.

perennially increasing national healthcare costs, though fee-for-service payment remains predominant.[29] Acquiring physician practices outright may provide an insurer with the control and ability to implement value-based care more easily than can be achieved via contracts and looser forms of affiliation.

Vertical integration with physicians can, in theory, make it easier for insurers and physicians to efficiently coordinate, determine mutually agreeable financial incentives that reward physicians for improving overall health outcomes, and steer enrollees to lower-cost providers. In principle, more elaborate contracts between non-integrated insurers and physicians could achieve similar outcomes. But in practice these goals, which were promoted by the 2010 Affordable Care Act, have largely remained elusive, though there is some evidence of progress.[30] One likely impediment is the challenge of writing complex, complete contracts that reliably define quality of care and allow for measurement of quality in a way that is transparent and that both providers and insurers agree is appropriate.[31] Insurer-physician integration is one potential solution to this problem.

Insurer-physician integration, however, is not free of the competitive concerns associated with vertical mergers more generally. An insurer that acquires a physician group could have the incentive and ability to disadvantage rival insurers by either terminating the group's contracts with those rivals or seeking higher prices for the group's services.[32] The FTC cited this concern in its complaint in the United-DaVita merger.[33] Because this incentive rests upon, among other factors, the integrated insurer gaining enrollees when its integrated physician group terminates its contract with a rival insurer, this class of concern is more likely to be salient for PCPs who, in contrast to most specialists, often have ongoing relationships with their patients. That is, a patient is more likely, though not at all certain, to change her insurer to retain access to her PCP, whom she sees regularly, than to retain access to a specialist she does not.[34]

Several factors act in the opposite direction of this strategic incentive. Terminating rival insurers would reduce the physician group's volume and profits (some patients covered by a rival insurer may change insurers to stay with their physician group, but others may not, reducing the payoff to the vertically integrated insurer). Favoring an owned physician group could imperil an insurer's relationship with non-owned physician groups that the insurer may need in order to offer an attractive product. Rival insurers may respond with their own strategic moves, such as acquiring, partnering with, or promoting rival provider organizations. In addition, the vertically integrated insurer-provider will have an economic incentive to lower insurance premiums because integration makes gaining additional enrollees (e.g., by lowering premiums) more profitable:

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29 "In 2020, as in 2018, almost all physicians (97%) relied on FFS and/or salary for their compensation and 36% also drew compensation from value-based payments." Mark J. Bethke et al., "Equipping Physicians for Value-Based Care: What Needs to Change in Care Models, Compensation, and Decision-Making Tools?" Deloitte Insights, Oct. 14, 2020, https://www2.deloitte.com/us/en/insights/industry/health-care/physicians-guide-value-based-care-trends.html.

30 U.S. Department of Health and Human Services, Office of the Inspector General, "Medicare Shared Savings Program Accountable Care Organizations Have Shown Potential for Reducing Spending and Improving Quality," Report in Brief, Aug. 2017, https://oig.hhs.gov/oei/reports/oei-02-15-00450.pdf; Michael E. Chernew, Patrick H. Conway & Austin B. Frakt,"Transforming Medicare's Payment Systems: Progress Shaped by the ACA," *Health Affairs* 39, no. 3 (2020): 413–420.

31 Under a volume-based fee-for-service system, a primary concern is that providers will render too great a volume of services, including low-value healthcare services — because that is what fee for service encourages. See, e.g. MedPAC, "Medicare Coverage Policy and Ase of Low-Value Care," Report to the Congress, June 2018, Ch. 10.

Conversely, if providers were compensated solely on the basis of low healthcare spending (e.g. a simple capitation payment), the concern would instead be that providers render too low a volume of services, imperiling the delivery of high-value healthcare services. This explains why value-based payment methods commonly embed a set of quality and performance standards for providers. But this necessarily increases the complexity and uncertainty of contracts with payers and providers. As one example, under the Medicare ACO program, CMS has adopted a relatively complicated system that requires providers to meet certain quality metrics to receive shared savings. CMS, "Medicare Shared Savings Program: Quality Measurement Methodology and Resources," May 2019, https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/quality-measurement-methodology-and-resources.pdf.

32 Economic literature refers to the former as input foreclosure and the latter as raising rivals cost. William Rogerson, "A Vertical Merger in the Video Programming and Distribution Industry: Comcast-NBCU," in *The Antitrust Revolution*, 6th ed., ed. John Kwoka & Lawrence White, (Oxford: Oxford University Press, 2014), 534–575.

This is not the only possible effect, as rivals may respond strategically. For example, when the Pennsylvania insurer Highmark vertically integrated by acquiring a Pittsburgh hospital system, the leading hospital system in the area, UPMC (which also operated a health plan), responded by announcing that its providers would no longer provide in-network care to Highmark enrollees. That led to years of contentious negotiations between the two integrated entities and the state, culminating in the state filing a lawsuit against UPMC. Commonwealth of Pennsylvania, Office of Attorney General, "Restoring Fairness in Western Pennsylvania," n.d., https://www.attorneygeneral.gov/upmc/.

33 FTC, *supra* note 25 ("The proposed acquisition positions UnitedHealth Group to raise the costs of its [Managed care provider organization] MCPO services to rival Medicare Advantage insurers, or even withhold such services from these rivals.").

34 The strength of patient-physician relationships spans a range. Some women may also have loyalty to their OB/GYNs, and some patients may have relationships with cardiologists or orthopedists. In contrast, for most patients, relationships with surgeons or hospital-based physicians are likely to be minimal. This illustrates the point that evaluating vertical incentives, as with merger review in general, is case specific.

each additional enrollee brings both an insurer-level and a provider-level profit margin, whereas without integration the insurer gains only the insurer-level profit margin.[35] Both incentives — to disadvantage rivals and to lower downstream prices — can co-exist in the same merger, and determining which is greater is case-specific and can be complicated.[36]

Other potential competitive concerns from vertical integration include a greater chance of coordination among sellers (e.g. if integration gives firms better insight into each other's costs and strategies), a decrease in the probability of new entry (e.g. if an integrated seller can withhold an important input from would-be entrants), and possible reduction in innovation.[37] These are general concerns that are not specific to vertical integration in the healthcare industry.

Perhaps due to the relative recency of such transactions, empirical research on healthcare outcomes associated with insurer-physician integration is lacking. One recent survey of empirical studies of vertical integration in various industries includes a summary of studies of vertical combinations in the healthcare and pharmaceutical industries. Consistent with the theoretical ambiguity described above, the empirical evidence is mixed: "Like studies of other industries, these articles report a variety of effects, ranging from increased patient spending to no change in health outcomes to improved drug development."[38] The FTC's recent retrospective initiative would likely yield data sufficient to also study insurer-physician combinations, although the agency did not highlight this topic among its stated goals.[39]

35 An equivalent way to characterize this incentive is that vertical integration removes the provider group's profit margin from the costs that the insurer considers when setting premiums. Generally, for a seller, the received price can be subdivided into marginal cost and incremental profit margin: $p = c + m$. When the insurer pays p to a provider group, the provider's profit margin m is a cost to that insurer. But if the insurer owns the physician group, m is not a cost but simply a shift of funds from one division to another. For this reason, economists commonly refer to this beneficial pricing incentive from vertical integration as elimination of double marginalization ("EDM") — the two margins, insurer and provider, become a single margin due to the elimination of the provider margin. The marginal cost term, c, includes, in addition to other costs, the opportunity cost to the provider group of supplying its services. The full extent to which an integrated insurer reduces premiums due to EDM also depends on the size of this opportunity cost after integration. If the additional enrollees whom the integrated insurer gains by reducing premiums come from rival insurers that rely on the provider group's services, then the integrated provider group incurs an opportunity cost in the form of a lost margin on sales to rivals. This post-integration opportunity cost will tend to reduce the size of EDM due to the vertical integration.

36 The net effect, under specific assumptions, will depend on a number of parameters, including, at least, upstream and downstream segment shares and incremental margins, diversion ratios among insurers, and consumer loyalty to physicians. William P. Rogerson, "Comment on the U.S. Department of Justice and the Federal Trade Commission Draft Vertical Merger Guidelines," Feb. 26, 2020, https://www.ftc.gov/system/files/attachments/798-draft-vertical-merger-guidelines/rogerson_verticalguidelines1_2.pdf. See also, Testimony of Cory S. Capps before the Senate Judiciary Committee, "Your Doctor/Pharmacist/Insurer Will See You Now: Competitive Implications of Vertical Consolidation in the Healthcare Industry," June 12, 2019, https://www.judiciary.senate.gov/imo/media/doc/Capps%20Testimony.pdf. Analysis of vertical merger incentives also needs to account for, among other things, potential strategic responses by rivals, which do not enter in the baseline calculations in Rogerson and similar approaches.

37 U.S. Department of Justice and Federal Trade Commission, "Vertical Merger Guidelines," June 30, 2020, https://www.ftc.gov/system/files/documents/reports/us-department-justice-federal-trade-commission-vertical-merger-guidelines/vertical_merger_guidelines_6-30-20.pdf ("VMG").

38 Marissa Beck & Fiona M. Scott Morton, "Evaluating the Evidence on Vertical Mergers," Dec. 31, 2020, SSRN https://ssrn.com/abstract=3554073. The authors caution against extrapolation of these results to other vertical transactions due to the "special structure" of the healthcare industry. See also, Margaret E. Slade, "Vertical Mergers: A Survey of Ex Post Evidence and Ex Ante Evaluation Methods," *Review of Industrial Organization* (2020), https://doi.org/10.1007/s11151-020-09795-7.

39 FTC, *supra* note 3.

III. HOSPITAL-INSURER-PHYSICIAN INTEGRATION

Stacking the major blocks of healthcare delivery — hospitals, physicians, and health plans — together in a single entity creates what we refer to as an Integrated Delivery Network ("IDN").[40] While there are successful and well-known examples of long-standing IDNs, such as Kaiser, Group Health of Puget Sound (now part of Kaiser), and Geisinger, even they have struggled to expand beyond their historical footprints. For example, Kaiser has tried to replicate its success in areas outside of California, such as the District of Columbia, Colorado, and Georgia, but has not achieved comparable market acceptance or growth.[41]

As we will describe, IDNs have significant theoretical benefits but with caveats. First, efforts to create IDNs may raise antitrust questions, particularly in the face of increased enforcement based on vertical theories of harm. Second, the empirical literature on the performance of IDNs does not so far find evidence that they consistently achieve their theoretical benefits. Even so, healthcare policy-makers continue to promote value-based finance and delivery models, such as accountable care organizations ("ACOs"), as a superior alternative to volume-based payment (i.e., fee-for-service).[42] Antitrust enforcers will have to evaluate such ventures on a case-by-case basis.

In theory, hospital-physician-insurer integration could realize any benefits of physician-insurer integration, any benefits of hospital-physician integration, and potentially more. For end consumers, IDNs can offer centralized functions under a single roof with more coordinated care and reduced administrative burden. Moreover, IDNs may allow for greater efficiency in healthcare delivery, better alignment of financial incentives, and greater ability to shift from fee-for-service models to value-based payment models. Against this, however, end consumers who enroll in an IDN-owned health plan will typically have a restricted choice of PCPs, specialists, and clinical facilities, either because of requirements to use IDN providers for most care or because of higher cost-sharing for selecting external providers.

It is natural for an IDN to orient around its own entities, and many do so; for instance, Kaiser physicians do not contract with non-Kaiser health plans and Geisinger Health Plan prefers but does not require that its enrollees receive routine care from Geisinger physicians. For an IDN, favoring its own entities will also mean disfavoring rival entities, which can be suspect under the VMG.[43] One effect of the VMG, whether intended or not, could be to slow the ability of IDNs to grow via acquisitions, particularly for IDNs that an antitrust agency deems to have market power at one or more levels of the value chain that they could leverage to disadvantage rivals.

Another potential competitive concern under the VMG is that IDN growth could increase entry barriers by requiring potential entrants to succeed at two or more levels in the value chain.[44] For example, an IDN that includes the leading provider system in a geography could have an incentive to prevent a rival insurer from entering and could make strategic use of its leading system to make entry more difficult. The would-be rival insurer may then need to enter at both the provider and insurer levels of the supply chain. That would be costlier and riskier, and therefore less likely to occur, all else equal. Hospital-physician integration without an insurance arm could raise similar concerns, but likely to a lesser extent.

40 In the health services literature, different researchers may refer to hospital-physician, hospital-insurer, and hospital-insurer-physician entities as IDNs. In more recent usage, which we follow here, the term more commonly references integrated systems that include hospital, physician, and health insurance components.

41 Katherine Ho, "Barriers to Entry of a Vertically Integrated Health Insurer: An Analysis of Welfare and Entry Costs," *Journal of Economics and Management Strategy* 18, no. 2 (2009): 487–545. Likewise, Geisinger remains concentrated in central Pennsylvania; Group Health remains concentrated in the greater Seattle Area; and Dean Clinic remains concentrated in Wisconsin.

42 An ACO brings together doctors, hospitals, and other providers in order to bear financial risk for the cost and quality of care for a population of patients. The ACO can bear risk by also including a health plan (i.e. by being an IDN) or by accepting global capitation or some lesser form of two-sided risk. Either way, an ACO can bring providers together through outright vertical integration, meaning joint ownership; or an ACO can bring otherwise independent providers together through contractual agreements. See, e.g. CMS, "ACO Providers and Suppliers," n.d., https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/for-providers (showing ACO models including "ACO professionals in group practice arrangements," "Partnerships or joint venture arrangements between hospitals and ACO professionals," and "Hospitals employing ACO professionals").

43 VMG, § 4 ("A vertical merger may diminish competition between one merging firm and rivals that trade with, or could trade with, the other merging firm" and "A vertical merger may diminish competition by allowing the merged firm to profitably use its control of the related product to weaken or remove the competitive constraint from one or more of its actual or potential rivals in the relevant market.").

44 VMG, § 4, "Example 4: Creating the need for two-level entry."

While the theoretical benefits and potential antitrust issues surrounding IDNs are relatively clear, empirical literature that can inform antitrust policy is less developed. Part of the explanation seems to be a lack of robust public data on IDN performance, especially outside of Medicare ACOs.[45] The literature that does exist paints a mixed picture that, so far, provides a less-than-optimistic view of IDNs' ability to systematically deliver on the promise of cost-effective, high-quality healthcare.

In a 2015 report commissioned by the National Academy of Social Insurance ("NASI"), Jeff Goldsmith and colleagues surveyed the existing literature on IDNs and conducted case studies of 15 "nationally prominent IDNs that are dominant actors in their respective metropolitan and regional hospital markets."[46] Of the fifteen, eight operate health plans, two bear substantial two-sided risk, three are exploring establishing a health plan, and two are not bearing significant risk (thus, 10 to 13 of the studied systems are IDNs as we use the term).[47]

Bearing more risk should, all else equal, strengthen an IDN's incentive to control healthcare costs, and the scale and sophistication of IDNs should give them greater ability to manage care to achieve that goal.[48] However, the authors reach a pessimistic conclusion: "Despite more than 30 years of public policy advocacy on behalf of IDN formation, there is scant evidence in the literature either of measurable societal benefits from IDNs or of any comparative advantage accruing to providers themselves from forming IDNs. We have similarly found no such evidence in our analysis of 15 IDNs."[49]

The authors base that conclusion on several findings. Risk bearing and profitability are not related for IDNs.[50] Based on the flagship hospitals in each of the IDNs, bearing greater risk was also not associated with lower case mix-adjusted costs of care for Medicare patients.[51] Among IDNs that bear risk, flagship hospitals were on average 21 percent more expensive than their most comparable in-market competitor.[52] And flagship hospitals within IDNs performed no differently than their competitors with respect to quality and safety scores, consumer satisfaction, or Leapfrog ratings.[53]

Overall, the NASI survey provides no basis to presume that horizontal or vertical expansions by IDNs, or mergers and acquisitions that move a healthcare system closer towards being an IDN, will increase efficiency.[54] Instead, merging parties will have to substantiate their claims of benefits. But this is no different than the status quo in which merging parties bear the burden of establishing efficiency claims.[55]

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45 CMS does make Medicare ACO performance publicly available. See, e.g. CMS, "Medicare Shared Savings Program: Publicly Available ACO Data and ACO Performance Data Sources Maintained by CMS," updated January 2021, https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/MSSP-ACO-data.pdf.

46 Jeff Goldsmith et al., "Integrated Delivery Networks: In Search of Benefits and Market Effects," National Academy of Social Insurance, February 2015, https://www.nasi.org/sites/default/files/research/Integrated_Delivery_Networks_In_Search_of_Benefits_and_Market_Effects.pdf.

47 Examples of the 15 studied systems include Advocate Health Care in Chicago, Geisinger Health System in Central Pennsylvania, Intermountain Healthcare in Utah and Idaho, Penn Medicine in Philadelphia, and UPMC in Western Pennsylvania. They do not examine Kaiser. *Id.* 17–19, 23.

48 They authors describe the theoretical case for IDNs as follows: "Under claimed societal benefits, the principal ones are providing better coordinated care leading to improved quality and lower cost. These improvements are said to derive from eliminating duplicative tests and reducing unnecessary care, as well as coordinating care across the continuum . . . Joining these activities with the assumption of insurance risk, IDNs are believed to be able to pare down the volume incentives inherent in fee-for-service medicine . . ." *Id.* 1–2, 7–16.

49 *Id.* 3.

50 *Id.* 23–24.

51 *Id.* 24, 33.

52 *Id.* 24, 33. Among the smaller group of IDNs that do not bear risk, flagship hospitals were on average 10 percent less expensive than the comparator in-market hospital.

53 *Id.* 25.

54 The NASI survey is somewhat dated, but we have not identified any more recent research that would reverse the basic conclusions. There are some positive findings, however. For example, one study finds that Medicare Advantage ("MA") contracts for plans offered by health systems have higher quality ratings than unintegrated MA plan offerings. However, that difference was heavily, though not entirely, driven by Kaiser, and the quality advantage for integrated MA plans shrank over the study period. Garret Johnson, Zoe Lyon & Austin Frakt, "Provider-Offered Medicare Advantage Plans: Recent Growth and Care Quality," *Health Affairs* 36, no. 3 (2017): 539–547.

55 The VMG state that the FTC and DOJ will evaluate efficiency claims in vertical mergers by "using the approach set forth in Section 10 ['Efficiencies'] of the Horizontal Merger Guidelines." VMG, § 6. The ensuing discussion is focused almost entirely on EDM.

Although researchers generally do not have access to detailed data on the structure and performance of IDNs, past performance could prove relevant in merger analyses.[56] Most IDNs and even aspiring IDNs are large systems that became so through a combination of organic growth and acquisitions. That growth is likely to have created a track record that, for many transactions, can be used to test an agency's theories of harm as well as parties' efficiency claims. For example, for a hospital system seeking to acquire a physician group, past acquisitions by that same system would provide direct evidence on the likelihood of competitive harms as well as efficiencies.[57] Likewise, in an investigation of an insurer acquiring hospitals or physician groups, the agencies and courts are likely to give significant weight to the insurer's track record in similar past acquisitions, where available.[58]

IV. CONCLUSION

Over last several decades, the major building blocks in the healthcare finance and delivery system — hospitals, physicians, and insurers — have come together in various vertically integrated organizational structures, including hospital-physician, insurer-physician, and hospital-physician-insurer combinations. To varying degrees and possibly in combination, these stacks can reflect attempts to increase efficiency and improve value to customers, to exploit regulatory rules that favor one organizational form over another, or to leverage market power to disadvantage actual or potential rivals. The challenge for antitrust enforcers will be to discern which of these apply, and how strongly, to the specific mergers that come before them. The implication is that vertical merger analysis will proceed on a case-by-case basis, consistent with the VMG.[59]

Recent public statements and merger challenges by the FTC and DOJ, and the issuance of the VMG themselves, show that both agencies are now focused on vertical theories of harm and are less likely to presume that vertical mergers are beneficial.[60] When it comes to hospitals, physicians, and insurers specifically, the FTC's vertical enforcement track record is still limited. To date, the FTC has not challenged a hospital system's acquisition of a physician group under a vertical theory of harm, but it has cited a vertical theory of harm in challenging a health insurer's acquisition of a physician group. Given the small number of enforcement actions, it is unclear whether this simply reflects the mix of transactions before the FTC or differences in the FTC's assumptions and expectations regarding these two categories of vertical healthcare mergers.

Either way, the FTC's future enforcement priorities and theories of harm will likely be guided by conclusions from its retrospective study of horizontal and vertical mergers involving physician groups and healthcare facilities.[61] The last similar retrospective investigation by the FTC, a series of retrospective studies of hospital mergers in the early 2000s, led to the FTC's successful challenge of the Evanston-Highland Park consummated transaction and subsequent revitalization of its prospective hospital merger enforcement agenda.[62]

56 The authors of the NASI study had to rely on financial disclosures pursuant to IDNs issuing bonds and tax filings. They did not have access to unit-level structure or performance data; for example, they knew whether an IDN bears risk but could not determine how, if at all, that risk was passed on to the IDN's component hospitals and physicians.

57 For example, in the *St. Luke's/Saltzer* litigation, the parties claimed a number of efficiencies from adding the Saltzer physicians to St. Luke's. Findings of Fact and Conclusions of Law, https://www.ftc.gov/system/files/documents/cases/140124stlukesfindings.pdf, ¶ 147 *et seq.* The FTC's economic expert used claims data produced in discovery to evaluate the effects of St. Luke's past acquisitions of physician groups and found "no evidence of systematic reductions in healthcare costs." Demonstratives for the testimony of Professor David Dranove, https://www.ftc.gov/system/files/documents/cases/131002stlukedemodranove.pdf, 49–51.

58 DOJ and FTC, *Horizontal Merger Guidelines*, Aug. 19, 2010, § 2.1.2 ("The Agencies look for historical events, or 'natural experiments,' that are informative regarding the competitive effects of the merger.").

59 "To determine whether the merger may substantially lessen competition, the Agencies would analyze the specific facts and circumstances, including in particular the relative magnitude of these offsetting incentives." VMG, § 4(a), "Example 2: Input foreclosure and raising rivals' costs."

60 "While the agencies more often encounter problematic horizontal mergers than problematic vertical mergers, vertical mergers are not invariably innocuous." *Id.* § 1.

61 FTC, *supra* note 3.

62 "While it is not possible to measure the impact of the hospital retrospective program on subsequent enforcement precisely, it is suggestive that the FTC was able to obtain thirteen federal injunctions in hospital cases from 2008 to 2018, compared with only two from 1997 to 2007." FTC, "Overview of the Merger Retrospective Program in the Bureau of Economics," n.d., https://www.ftc.gov/policy/studies/merger-retrospectives/overview.

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