Geographic Market Definition in Urban Hospital Mergers: Lessons from the *Advocate-NorthShore* Litigation

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Geographic market definition has been, and remains today, the key battleground on which hospital merger cases are won or lost. True to this paradigm, geographic market definition was the central issue in the Federal Trade Commission's recent success in blocking the merger of two Chicago-area health systems: Advocate Health Care Network and NorthShore University Health System.

In *FTC v. Advocate Health Care*,[1] the FTC and the State of Illinois alleged an 11-hospital geographic market that covered much of Chicago's northern suburbs. The district court was unconvinced, and denied the FTC's motion for a preliminary injunction based on its finding that the FTC had failed to prove a relevant geographic market.

The FTC subsequently appealed to the Seventh Circuit. The Seventh Circuit reversed the district court and remanded the case, deeming the district court's geographic market findings clearly erroneous. In a robust and detailed opinion, the Seventh Circuit took stock of the evolution of hospital merger geographic market analysis. It assessed the tools that have historically been deployed in this analysis, including Elzinga-Hogarty and the hypothetical monopolist test. In its analysis, the court retired the former and solidified the latter. Ultimately, the Seventh Circuit's *Advocate* opinion and the litigation upon which it is based provide litigants on both sides of a deal useful guidance about how to effectively define geographic markets in future hospital merger cases.

This article reviews the *Advocate* litigation, the Seventh Circuit opinion, and the state of hospital merger geographic market definition in the case's wake. While we focus on geographic market definition, many of the issues we discuss similarly arise in the context of competitive effects analysis. As discussed below, application of the hypothetical monopolist test entails determining whether a hypothetical merger of all suppliers in a given area would lead to significant anticompetitive effects (specifically, a small but significant non-transitory increase in price, otherwise known as a SSNIP). Competitive effects analysis considers a largely analogous situation: would the proposed merger between two specific suppliers lead to significant anticompetitive effects. Given the similarity of these two questions, the qualitative and empirical evidence relied upon in market definition has become increasingly similar to the qualitative and empirical evidence relied upon in competitive effects analysis. Indeed, each side's market definition and competitive effects analyses in the Advocate-NorthShore litigation were closely related. Thus, while we focus specifically on market definition, many of the points are applicable to competitive effects analysis as well.

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[1] No. 15 C 11473, 2016 WL 3387163 (N.D. Ill. June 20, 2016).

Overview of Advocate-NorthShore

In September 2014, two prominent Chicago-based health systems—Advocate and NorthShore—announced a merger. With 11 general acute care hospitals, numerous outpatient facilities, and a network of physicians, Advocate is the largest health system in Illinois.[2] Two of Advocate's general acute care hospitals are in the northern suburbs of Chicago while the others are elsewhere in Illinois and were not at issue in the FTC's challenge to the transaction. Advocate's proposed merger partner, NorthShore, has four hospitals, all of which are located in the northern Chicago suburbs.[3] The FTC considered each of NorthShore's hospitals to be competitively implicated by the merger.

Historically, many proposed hospital mergers challenged by the FTC involved hospitals located in rural, sparsely populated areas. This case differed, as the geography at issue involved one of the country's largest cities—urban, densely populated Chicago. Beyond the merging parties' hospitals, the greater Chicago area is home to dozens of other hospitals, including major academic medical centers (AMCs), such as Northwestern Memorial; specialty hospitals, such as those focused on cancer or pediatric treatment; and various community hospitals. Even Chicago's northern suburbs, where the merging parties' footprints overlap and, consequently, the FTC's case focused, are home to several other hospitals.

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In December 2015, after an in-depth investigation, the FTC filed a complaint seeking a preliminary injunction in the District Court for Northern District of Illinois. The FTC's complaint alleged a lessening of competition for the provision of inpatient general acute care hospital services sold to commercial payers (i.e., health insurance providers) in Chicago's northern suburbs—an area termed the North Shore Area. Over the course of a nearly two-week trial, the district court heard testimony from 15 witnesses, including six experts, four payers, four of the merging parties' hospital executives, and one third-party hospital. After all of the evidence was presented, the district court found that the FTC had not met its burden with respect to proving the geographic market and ruled for the merging parties.

The Commission appealed the district court's decision to the Seventh Circuit. The Seventh Circuit reversed and remanded to the district court for reconsideration of the FTC's motion for a preliminary injunction consistent with its detailed and pointed geographic market findings.[4] In its final decision, the district court reversed its initial position, found for the FTC, and granted a preliminary injunction.[5] Immediately following the decision, Advocate and NorthShore announced they would abandon the proposed merger.

Overview of Hospital Merger Enforcement at the FTC

The Seventh Circuit's opinion in *Advocate* considered a long history of hospital merger precedent. This history provides a critical foundation and context for the opinion. Likewise, it goes a long way towards explaining the FTC's modern approach to geographic market definition in hospital mergers and, specifically, why the FTC approached *Advocate* as it did.

The FTC has met with varied levels of success over time in litigating hospital mergers. The FTC and the Department of Justice began challenging hospital mergers in the 1980s and early 1990s.

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[2] *See generally* Advocate Health Care, https://www.advocatehealth.com/about-advocate/ (last visited Nov. 13, 2017).

[3] *See generally* Northshore University HealthSystem Locations, https://www.northshore.org/locations (last visited Nov. 15, 2017).

[4] FTC v. Advocate Health Care Network, 841 F.3d 460, 476 (7th Cir. 2016).

[5] FTC v. Advocate Health Care, No. 15 C 11473, 2017 U.S. Dist. LEXIS 37707, at *59 (N.D. Ill. Mar. 16, 2017).

During this early era of hospital merger enforcement, the agencies were successful in a number of cases.[6] In these and other early wins, the courts accepted relatively narrow geographic markets.[7]

From 1994 through 2000, however, the FTC and DOJ lost a string of litigated hospital merger challenges, largely on the issue of geographic market definition.[8] In many of these cases, the government's loss can be attributed to courts finding a broader geographic market than the government alleged. For example, in 1995, the FTC lost its challenge in *FTC v. Freeman Hospital Corp.*,[9] a case in which two of the three hospitals in Joplin, Missouri planned to merge. The FTC proposed a geographic market composed of an area extending 27 miles around Joplin. Defendants, on the other hand, successfully argued the market extended to 50 miles or more. Similarly, in *FTC v. Tenet Healthcare Corp.*,[10] the FTC alleged a geographic market extending 50 miles from Poplar Bluff, Missouri, while the defendants argued a 65-mile market, but the FTC did not prevail. In *United States v. Mercy Health Services*, the DOJ lost as well, with the court finding that the geographic market could extend as far as 70 to 90 miles.[11]

In finding these broader geographic markets, many courts relied on analyses of patient flow data.[12] One such analysis is known as the Elzinga-Hogarty approach, in which a candidate market is selected and then patient migration in and out is considered. A geographic market is established under the Elzinga-Hogarty test if the candidate market is sufficiently self-contained, i.e., few patients enter or exit the area.

On the heels of these losses, in 2002, the FTC established a merger litigation task force that undertook a retrospective study to review the effects of consummated hospital mergers. Following that effort, and based on its teachings, in 2004, the FTC challenged the Evanston-Highland Park merger (which was consummated in 2000). After a full Part III administrative trial and appeal to the Commission, the Commission upheld the Administrative Law Judge's decision and ruled for the FTC.[13] Because this case involved a consummated transaction in which actual price effects had already resulted, it allowed the FTC to side-step difficult geographic market issues it had faced in prior cases. In addition, the case allowed the FTC to successfully challenge the Elzinga-Hogarty approach that had hindered the agency in the past. The FTC put the test's founder and namesake, Dr. Kenneth Elzinga, on the stand to explain the problems with using the Elzinga-Hogarty test to define markets in hospital cases.

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[6] *See, e.g.*, Hosp. Corp. of Am. v. FTC, 807 F.2d 1381 (7th Cir. 1986); United States v. Rockford Mem'l Corp., 898 F.2d 1278 (7th Cir. 1990); FTC v. Univ. Health, Inc., 938 F.2d 1206 (11th Cir. 1991).

[7] *See, e.g.*, Am. Med. Int'l, Inc., 104 F.T.C. 1 (1984) (the relevant geographic market was San Luis Obispo city and county); FTC v. Univ. Health, Inc., 938 F.2d 1206 (11th Cir. 1991) (the relevant geographic market was limited to Augusta, Georgia).

[8] *See, e.g.*, United States v. Long Island Jewish Med. Ctr., 983 F. Supp. 121 (E.D.N.Y. 1997); FTC v. Tenet Healthcare Corp., 186 F.3d 1045 (8th Cir. 1999); FTC v. Butterworth Health Corp., 946 F. Supp. 1285 (W.D. Mich. 1996), *aff'd*, 121 F.3d 708 (6th Cir. 1997); FTC v. Hosp. Bd. of Dirs., 38 F.3d 1184 (11th Cir. 1994).

[9] 69 F.3d 260 (8th Cir. 1995).

[10] 17 F. Supp. 2d 937 (E.D. Mo. 1998).

[11] 902 F. Supp. 968 (N.D. Iowa 1995).

[12] California v. Sutter Health Sys., 84 F. Supp. 2d 1057 (N.D. Cal. 2000); FTC v. Tenet Healthcare Corp., 17 F. Supp. 2d 937 (E.D. Mo. 1998), *rev'd*, 186 F.3d 1045 (8th Cir. 1999); United States v. Mercy Health Servs., 902 F. Supp. 968 (N.D. Iowa 1995), *vacated as moot*, 107 F.3d 632 (8th Cir. 1997); FTC v. Freeman Hosp., 911 F. Supp. 1213 (W.D. Mo.), *aff'd*, 69 F.3d 260 (8th Cir. 1995).

[13] Evanston Northwestern Healthcare Corp., FTC Docket No. 9315, 2008 F.T.C. LEXIS 62 (Apr. 28, 2008), https://www.ftc.gov/sites/default/files/documents/cases/2007/08/070806opinion.pdf.

After prevailing in *Evanston*, the FTC went on to win its subsequent hospital merger challenges. These cases include *FTC v. ProMedica*[14] and *FTC v. OSF*.[15] The agency also challenged the Inova-Prince William[16] merger, which the parties abandoned pre-decision, and Phoebe Putney-Palmyra,[17] which turned largely on state action issues. In *ProMedica* and *OSF*, the mergers took place in the mid-sized cities of Toledo, Ohio and Rockford, Illinois, where it was feasible for the FTC to treat the entire area surrounding the city as a geographic market and still bring a successful case.

Until *Advocate*, the agency had yet to litigate a truly urban hospital merger in which the FTC would potentially have to defend its proposed geographic market against an Elzinga-Hogarty-style analysis. In *Advocate*, the agency was faced with that challenge and, as a result of the agency's initial district court loss, the Seventh Circuit had an opportunity to weigh in. As a result, the law and economics that underpin modern geographic market definition in the hospital merger context are now clearer.

Geographic Market Definition: Lessons from *Advocate*

The Iterations of the Hypothetical Monopolist Test. One of the Seventh Circuit's core holdings relates to the application of the hypothetical monopolist test for geographic market definition. Broadly, the Seventh Circuit explained that "the hypothetical monopolist test [] uses an iterative process, first proposing a region and then using available data to test the likely results of a price increase in that region."[18] Put differently, to properly apply the hypothetical monopolist test, one must first identify a potential candidate market and then test whether a monopolist supplier in that candidate market could sustain a SSNIP, i.e., a small but significant non-transitory increase in price (often taken to be a 5 percent price increase), without a sufficient number of customers switching to suppliers outside the hypothetical market such that the SSNIP would not be profitable.

This is the approach the FTC presented at trial. The FTC's economic expert (and co-author of this article), Dr. Steven Tenn, first identified a candidate market and then employed an economic analysis to determine if it passed the hypothetical monopolist test. In its initial opinion, the district court rejected this approach, finding fault with the criteria applied to select the candidate market. The district court did not proceed to address the FTC's evidence regarding whether a hypothetical monopolist could extract a price increase. Instead, the court ended its inquiry at the candidate market stage, deeming flaws in the composition of the candidate market fatal to the FTC's case.

The Seventh Circuit found this to be an error, stating, "The district court criticized [the FTC's economic expert's] candidate market but did not mention his results. The court did not explain why it thought that a narrow candidate market would produce incorrect results. . . . We have not found support for that assumption."[19] On remand, with the Seventh Circuit's guidance, the district court reversed course and found the FTC's application of the hypothetical monopolist test to be sound.

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[14] FTC v. ProMedica Health Sys., Inc., No. 3:11-CV-47, 2011 U.S. Dist. LEXIS 33434 (N.D. Ohio Mar. 29, 2011).

[15] FTC v. OSF Healthcare Sys., 852 F. Supp. 1069 (N.D. Ill. 2012). Additionally, in *St. Alphonsus Medical Center-Nampa, Inc. v. St. Luke's Health System, Ltd.*, 778 F.3d 775 (9th Cir. 2015), the FTC won a physician merger case. Physician mergers resemble hospital merger cases in many ways.

[16] *See* FTC v. Inova Health Sys. Found., No. 1:08-cv-00460 (E.D. Va. June 12, 2008) (order granting joint motion to dismiss complaint without prejudice).

[17] FTC v. Phoebe Putney Health Sys., 568 U.S. 216 (2013).

[18] *Advocate Health Care Network*, 841 F.3d at 464.

[19] *Id.* at 473.

The FTC's methodology for implementation of the hypothetical monopolist test proceeds as follows: The first step of the geographic market analysis is to determine the order in which hospitals are added to the candidate market. The Horizontal Merger Guidelines[20] do not prescribe a specific methodology for how to construct a candidate geographic market. An economist must devise a method that takes account of and incorporates the facts and dynamics that characterize the specific area at issue. In *Advocate*, the FTC relied on three criteria discussed below that were based on the available qualitative and empirical evidence, along with the competitive concerns raised by that evidence.

The first criterion used to determine the candidate market was to include local hospitals in the candidate market before "destination hospitals." Destination hospitals include both AMCs and specialty hospitals that, like AMCs, draw from a far broader geography than community hospitals. This criterion was appropriate because the evidence showed that payers assembling provider networks must include hospitals located in the northern suburbs of Chicago to be attractive to employers in the area. Thus, hospitals located in the area were observed competing to fulfill this role for payers. This criterion reflects the local competitive dynamic by adding to the candidate market those hospitals that potentially meet that need before adding hospitals that do not. Importantly, none of the AMCs in Chicago are located in the northern Chicago suburbs. Had there been such an AMC, it would have potentially fulfilled the payers' need for having local providers in the northern Chicago suburbs and, accordingly, would have been included in the candidate market in the same order as the other local hospitals.

The second criterion used to construct the candidate market was that hospitals that more significantly overlap with the merging parties were included in the candidate market before including hospitals that less significantly overlap with the merging parties. Specifically, hospitals with at least a 2 percent share in the areas from which Advocate's and NorthShore's hospitals draw patients were included in the candidate market first.

Finally, the third criterion used to construct the candidate market was that hospitals that overlap with both Advocate and NorthShore were included in the candidate market before including hospitals that overlap with either Advocate or NorthShore, but not both. Like the first two criteria, this criterion stems from the competitive dynamics at issue in the case. Specifically, it reflects the concern that Advocate and NorthShore are close substitutes for patients desiring local treatment in Chicago's northern suburbs. These patients are likely to live in areas where Advocate and NorthShore overlap, since patients living in areas where only one or neither of the parties attracts patients are unlikely to view Advocate and NorthShore as their first and second choices. If a significant fraction of patients view Advocate and NorthShore as their first and second choices, then economic theory indicates that a combined Advocate-NorthShore would have greater negotiating leverage postmerger since such patients would have to turn to their third best alternative if the combined firm were excluded from the payer's provider network. The third criterion illuminates this competitive concern by identifying those hospitals that are potentially the next best alternative for patients who view Advocate and NorthShore as their first and second choices.

During the trial, the defendants criticized this approach for inappropriately excluding particular hospitals from the geographic market. But, as discussed above, the criteria employed do not in fact *exclude* any hospital from the geographic market. Rather, they determine only the order in

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[20] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines (2010), https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf.

which hospitals are included in the candidate market. Given the nature of the hypothetical monopolist test, this is not merely a semantic issue. As acknowledged by the Seventh Circuit, defining a geographic market is inherently an iterative process in which "[t]he analyst proposes a candidate market, simulates a monopolization of that market, then adjusts the candidate market and reruns the simulation as necessary."[21] It follows that, when constructing a candidate market, rather than *excluding* suppliers, an economist is actually identifying the order in which hospitals ought to be *included* in the candidate market.

Applying the three criteria identified above resulted in a candidate market containing 11 hospitals. This set includes all four NorthShore hospitals and the two Advocate hospitals located in the northern suburbs of Chicago, plus five other hospitals. After constructing a candidate market, the next step is to "simulate[] a monopolization of that market."[22] As the Horizontal Merger Guidelines explain, if the hypothetical monopolist could sustain a SSNIP, then the market definition exercise is complete and the candidate market is deemed a relevant geographic market under this methodology. This is so because if a SSNIP would be profitable for the hypothetical monopolist, then competition from sellers outside of the candidate market would not sufficiently constrain the pricing of sellers inside of the candidate market. Thus, those outside sellers should be excluded from the geographic market.

[W]hen constructing a candidate market, rather than **excluding** *suppliers, an economist is actually identifying the order in which hospitals ought to be* **included** *in the candidate market.*

A range of qualitative and empirical evidence was used to determine whether or not the candidate market passed the hypothetical monopolist test. For example, the evidence clearly showed the importance to payers of including hospitals in the northern suburbs in their provider networks and, in particular, the importance of including either Advocate or NorthShore. Further evidence came from empirical analysis of patient discharge data. This analysis showed that patients typically prefer hospitals located near where they live, and view hospitals in the northern suburbs, and Advocate and NorthShore in particular, as close substitutes.

A formal merger simulation analysis was used to complement and reinforce this evidence. Specifically, a merger simulation between all of the hospitals in the candidate market was undertaken to determine whether a hypothetical monopolist of them would find it profitable to impose at least a 5 percent SSNIP. A similar merger simulation between only Advocate and NorthShore was also undertaken to predict the competitive impact of the proposed transaction.

The merger simulation model employed was similar to models that have previously been used in the economics literature, including in research specific to mergers in the hospital industry.[23] The model relies on diversion ratios and margins, which the Horizontal Merger Guidelines identify as being particularly important when evaluating unilateral effects. Additionally, it relies on standard economic theory to predict how these inputs determine the magnitude of the postmerger price change.[24] This merger simulation analysis directly addresses whether a hypothetical monopolist would sustain a SSNIP. As discussed above, this can be assessed, without the use of a formal

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[21] *Advocate Health Care Network*, 841 F.3d at 473.

[22] *Id.*

[23] *See, e.g.*, Martin S. Gaynor et al., *A Structural Approach to Market Definition with an Application to the Hospital Industry*, 61 J. INDUS. ECON. 243 (2013).

[24] There are, of course, multiple ways of undertaking a merger simulation. For example, one alternative approach that the FTC could have employed was a Price-Willingness to Pay (WTP) regression, which seeks to estimate the relationship between price and a measure of bargaining leverage by predicting the change in price that would occur from the parties' increased bargaining leverage postmerger. But employing this regression risked raising complicated econometric issues that would have been difficult to resolve in this case and was therefore not the analysis the FTC's economic expert considered most appropriate.

economic model, based on other qualitative and empirical evidence. Thus, while merger simulation is one way of determining whether a candidate market passes the hypothetical monopolist test, it is not the only possible approach.

Sensitivity Analysis. The FTC's economic expert concluded that the North Shore Area candidate market passed the hypothetical monopolist test. Having established a relevant market, the FTC proceeded to the next analytical phase prescribed by the Horizontal Merger Guidelines: assessing market shares and concentration levels. The FTC found the merger would result in market shares and concentration figures far beyond those the Horizontal Merger Guidelines identify as presumptively "likely to enhance market power."[25] Specifically, postmerger, the combined firm would have a 59.7 percent market share. With a postmerger HHI of 3943 (an increase of 1782 points above premerger levels), the market would be highly concentrated.

To be conservative in the merging parties' favor, the FTC's economic expert also considered a candidate market that additionally included the next most relevant hospitals when evaluating the competitive concern raised by the proposed transaction. He relaxed the second criterion to include hospitals with a 1 percent share in the areas where Advocate and NorthShore attract patients, rather than those with at least a 2 percent share. At the same time, he relaxed the third criterion to include hospitals that overlap with Advocate or NorthShore, but not both. These relaxed criteria led to a candidate market containing 15 hospitals, which he also concluded passed the hypothetical monopolist test. Moreover, the proposed transaction would still result in a "highly concentrated" market under this alternative market delineation and would still meet the presumption of harm under the Horizontal Merger Guidelines.

Additional sensitivity analysis was also undertaken regarding the first criterion, where local hospitals were included in the candidate market before destination hospitals, by considering alternative ways of incorporating the AMCs into the analysis. Treatment of these hospitals is complicated by the fact that they pull in patients from throughout the Chicago metropolitan area. While large AMCs such as Northwestern Memorial and Rush University attract *some* patients from the northern suburbs, the vast majority of their patients reside in areas where the relevant Advocate and NorthShore hospitals attract few or no patients.

This highlights a well-known limitation associated with defining supplier location-based geographic markets: a bright-line rule is employed where firms are either "in" or "out" of the market. This can be avoided, however, if one measures concentration based on patient location.[26] Two robustness checks were considered where concentration was measured based on patient location. The results were then compared to concentration in the North Shore Area based on hospital location.

The first method measured concentration for patients living in the service area that NorthShore analyzes in the ordinary course. This analysis incorporated all of the patients living in NorthShore's service area, including those that went to hospitals in other parts of the city.

A hospital-specific concentration measure was also considered, constructed in two steps. First, concentration was measured separately for each ZIP code. Second, the weighted average

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[25] Horizontal Merger Guidelines, *supra* note 20, § 5.3.

[26] The distinction between the two approaches is as follows: When calculating concentration based on hospital location, one includes all patients who are admitted to hospitals located in a given area, regardless of where the patient resides. In contrast, when calculating concentration based on patient location, one includes all patients living in a given area, regardless of which hospital they are admitted to. The determination of whether it is most appropriate to measure concentration based on the location of suppliers versus the location of patients is a fact-driven inquiry.

across the ZIP codes was calculated separately for each hospital, based on the number of admissions for a given hospital that were from each ZIP code. This analysis included the entire Chicago area, along with all of its hospitals, but more weight was given to areas where a given hospital attracts more patients.

These patient-based measures of concentration were similar to concentration measured based on hospital location. Including the AMCs in the concentration measures did not alter the main takeaway from the analysis: the proposed merger would substantially increase concentration in an already highly concentrated market.

Elzinga-Hogarty and Patient Travel Patterns. As discussed earlier, reliance on the Elzinga-Hogarty approach initially helped the antitrust agencies in their efforts to block hospital mergers. But its use by the merging parties contributed to a series of losses in subsequent hospital merger litigations. Prior courts' acceptance of Elzinga-Hogarty posed a problem for the FTC when bringing an urban hospital merger case, since Elzinga-Hogarty tended to lead to very wide geographic markets in dense urban areas.

A key takeaway from the Seventh Circuit opinion is that methods for defining the geographic market should evolve along with the associated economics literature and, as a result, the Elzinga-Hogarty approach should no longer be used to define the geographic market. Nonetheless, the Seventh Circuit opinion is quite clear that this conclusion does not undermine the importance of patients' preferences, as reflected in patient-level data, when defining the geographic market.

The Seventh Circuit opinion highlights what is known as the "silent majority fallacy" in the economics literature. Even if a candidate market has significant patient inflow and outflow, and therefore does not pass the Elzinga-Hogarty test, it may be the case that "a 'silent majority' of patients will not travel, enabling anticompetitive price increases."[27] In other words, the Seventh Circuit opinion endorsed a key finding from the economics literature, and a key element of the FTC's case, that the Elzinga-Hogarty test is inconsistent with the hypothetical monopolist test.[28] If a sufficient fraction of patients strongly prefer to be treated in a given area, then a hypothetical monopolist may be able to raise price due to that preference, even if other patients are in fact willing to travel outside the candidate market for treatment. The key issue is whether the hospitals located within a candidate market are sufficiently close substitutes such that the elimination of competition between them would lead to a significant price increase. Elzinga-Hogarty considers hospital substitutability in a very indirect and limited manner, making it an inappropriate methodology for defining the geographic market.

The Seventh Circuit opinion makes clear, however, that patient preferences are still relevant when defining the geographic market. While commercial payers are the direct customer, patient preferences are key since commercial payers care about the demand for their products, which is determined by employer preferences and the preferences of their employees. In *Advocate*, the evidence clearly demonstrated that having hospitals in the northern Chicago suburbs in a payer's provider network made their health plans far more attractive to employers located in that area. As a result, a hypothetical monopolist of all hospitals in the North Shore Area would be able to profitably impose a SSNIP and thereby pass the hypothetical monopolist test.

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[27] *Advocate Health Care Network*, 841 F.3d at 470 (citation omitted).

[28] *See, e.g.*, Kenneth Elzinga & Anthony Swisher, *Limits of the Elzinga-Hogarty Test in Hospital Mergers: The* Evanston *Case*, 18 INT'L J. ECON. BUS. 133 (2011); Cory S. Capps et al., *The Silent Majority Fallacy of the Elzinga-Hogarty Criteria: A Critique and New Approach to Analyzing Hospital Mergers* (Nat'l Bureau Econ. Research, Working Paper No. 8216, 2001); Martin S. Gaynor et al., *supra* note 23.

The plaintiffs relied on a number of different approaches to assess patient preferences for receiving local care. It is clear from the Seventh Circuit opinion that analysis of patient travel times was particularly effective. In multiple places in the opinion, the Seventh Circuit cites to travel time analysis to highlight that patients generally prefer to be treated locally. For example, "This case's record reflects that preference: in the Commission's proposed market, 80 percent of patients drove to the hospital of their choice in 20 minutes or less."[29]

In hospital markets, the Seventh Circuit explained, patients, hospitals, and insurers partake in a two-stage competitive dynamic.

Due to this preference for local treatment, the Seventh Circuit concludes that the need for convenience will often imply relatively localized geographic markets—that is, "for the most part hospital services are local."[30] This conclusion is consistent with the Seventh Circuit's conclusion that Elzinga-Hogarty is an inappropriate method for defining the geographic market, since that approach will often result in very large geographic markets when applied to urban areas. Thus, the Seventh Circuit's retirement of Elzinga-Hogarty, while solidifying the importance of patient preferences, is not contradictory, but rather clarifies what factors do, and do not, matter when defining the geographic market.

This two-stage dynamic is foundational to geographic market definition because it indicates that payers', rather than patients', response to a price increase is the relevant inquiry when undertaking the hypothetical monopolist test.

The Likely Response of Payers to a Price Increase. During the course of the *Advocate* litigation, the FTC and the defendants diverged on the key issue of whether patients or health insurers should be considered the hospitals' customers when defining the relevant antitrust market. One of the most important guideposts the Seventh Circuit provided in the *Advocate* opinion relates to this question. In hospital markets, the Seventh Circuit explained, patients, hospitals, and insurers partake in a two-stage competitive dynamic. This two-stage dynamic is foundational to geographic market definition because it indicates that payers', rather than patients', response to a price increase is the relevant inquiry when undertaking the hypothetical monopolist test.

During the trial, the defendants emphasized patients' alternatives for hospital care and advanced a narrative about how patients would respond if their hospital prices increased by a small but significant amount. One of the defendants' central themes was that the FTC inappropriately excluded Northwestern Memorial and other area hospitals from its candidate market. The defendants urged the court to look to the "competitive substitutes" outside of the FTC's proposed market. The defendants posited that because some patients residing in the northern Chicago suburbs sought care at hospitals outside of the North Shore Area, such hospitals would constrain prices postmerger and belonged in the geographic market. This line of reasoning was initially persuasive to the district court. Indeed, at trial, the district court found that patient preference for local hospitals was "equivocal" and that the FTC's basis for excluding downtown AMCs from the candidate market was circular.[31]

The Seventh Circuit took a different approach. It focused on the likely response of payers to a price increase and, on that basis, affirmed the FTC's market definition analysis. To arrive at this conclusion, the Seventh Circuit expressly acknowledged that hospital care is purchased in two stages, and thus there are two stages of competition in hospital markets.[32] In the first stage, insurers and hospitals negotiate to determine which hospitals will be included in an insurer's provider network and at what prices services will be provided. In the second stage of competition, after provider network composition and price have been established, hospitals compete to attract

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[29] *Advocate Health Care Network*, 841 F.3d at 470.

[30] *Id.* at 474 (quoting United States v. Rockford Mem'l Corp., 898 F.2d 1278 (1990)).

[31] *Advocate Health Care*, 2016 WL 3387163, at *4–5.

[32] *Advocate Health Care Network*, 841 F.3d at 465.

patients largely through non-price factors, such as location, quality, and reputation.[33] Based on this dynamic, the Seventh Circuit explained, "[i]nsured patients are usually not sensitive to retail hospital prices, while insurers respond to both prices and patient preferences."[34]

The Seventh Circuit went on to describe how patient price insensitivity affects geographic market definition. It stated that, based on this insensitivity, "[t]he geographic market question is therefore most directly about the likely response of insurers, not patients, to a price increase."[35] Following the Seventh Circuit's holding on this issue, patient insensitivity to hospital price increases should not be ignored when defining the geographic market in hospital mergers.[36] *Advocate* teaches that discounting this factor, overlooking the two stages of hospital competition, or failing to view the hypothetical monopolist test through the lens of payers may result in an analysis that is untethered from competitive realities and, consequently, unpersuasive to a court.

Conclusion

The *Advocate* litigation provides significant guidance on how to define geographic markets in future hospital merger cases. The Seventh Circuit found that commercial payers, rather than individual patients, are the relevant customers. Therefore, the geographic market should be delineated based on the likely response to a price increase by commercial payers. Specifically, the Seventh Circuit endorsed the Horizontal Merger Guidelines' hypothetical monopolist test to define the relevant geographic market, while finding that the Elzinga-Hogarty approach is not an appropriate means of doing so. The latter finding is unsurprising given the court's treatment of the hypothetical monopolist test, since the Elzinga-Hogarty approach is inconsistent with the hypothetical monopolist test. This conclusion will be particularly important for hospital mergers in urban settings where it is more likely that a candidate market would fail Elzinga-Hogarty despite passing the hypothetical monopolist test.

The Seventh Circuit opinion does not offer precise instruction for how the hypothetical monopolist test should be implemented, i.e., how the candidate market should be constructed and what analysis should be used to determine whether a monopolist of hospitals in that area could profitably increase price by a SSNIP. Nonetheless, it is clear from the Seventh Circuit opinion that the approach used should recognize that commercial payers are the relevant customers, and should be based on the available qualitative and empirical evidence and the competitive concerns raised by that evidence. The method used by the FTC's economic expert in *Advocate* to define the geographic market is an example of one such approach.

While the Seventh Circuit's opinion offers significant guidance on how the geographic market should be defined in hospital merger *litigations*, we do not believe that it will significantly impact how the FTC evaluates prospective hospital mergers during its merger *review* process. The key analyses and approaches that the FTC relied upon in *Advocate* are not new, but have been used by FTC staff for many years. As such, the FTC is likely to assess future urban hospital mergers in much the same way it always has: through a fact-based inquiry that relies on a range of analytical tools to determine whether the proposed transaction is likely to have significant anticompetitive effects. ●

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[33] *Id.*

[34] *Id.* at 471 (citation omitted).

[35] *Id.* (citations and internal quotations omitted).

[36] Patients' degree of price sensitivity depends, in part, on the plan design of their health insurance. For example, patients may exhibit a higher degree of price sensitivity in situations where they have higher out-of-pocket costs.