In the Matter of Evanston Northwestern Healthcare Corporation
Docket No. 9315

OPINION OF THE COMMISSION

By Majoras, Chairman.

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I. INTRODUCTION[1]

In 2000, Evanston Northwestern Healthcare Corporation ("Evanston") merged with Highland Park Hospital ("Highland Park"). Prior to the merger, Evanston owned Evanston Hospital and Glenbrook Hospital.[2]

The Commission issued an administrative complaint challenging Evanston's acquisition of Highland Park under Section 7 of the Clayton Act four years after the transaction closed. Given that the merger was consummated well before the Commission commenced this case, we were able to examine not only pre-merger evidence, but also evidence about what happened after the merger.

There is no dispute that ENH substantially raised its prices shortly after the merging parties consummated the transaction. There is disagreement about the cause of those price increases, however. Complaint counsel maintains that the merger eliminated significant competition between Evanston and Highland Park, which allowed ENH to exercise market power against health care insurance companies. Respondent argues that, during the due diligence process for the merger, ENH obtained information about Highland Park's prices that showed that Evanston had been charging rates that were below competitive levels for a number of years. Respondent contends that most of ENH's merger-related price increases simply reflect its efforts to raise Evanston Hospital's prices to competitive rates. Respondent also maintains that some portion of the merger-related price increases reflects increased demand for Highland Park's services due to post-merger improvements at the hospital.

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[1] This opinion uses the following abbreviations:

CB – Complaint Counsel's Brief on Appeal and Cross-Appeal

Chief Administrative Law Judge Stephen J. McGuire ("ALJ") found in his Initial Decision that the transaction violated Section 7 of the Clayton Act and ordered ENH to divest Highland Park. We affirm the ALJ's decision that the transaction violated Section 7 of the Clayton Act. Considered as a whole, the evidence demonstrates that the transaction enabled the merged firm to exercise market power and that the resulting anticompetitive effects were not offset by merger-specific efficiencies. The record shows that senior officials at Evanston and Highland Park anticipated that the merger would give them greater leverage to raise prices, that the merged firm did raise its prices immediately and substantially after completion of the transaction, and that the same senior officials attributed the price increases in part to increased

The complaint's third count alleged that ENH had engaged in price fixing on behalf of physicians whom it employed and other affiliated physicians. Compl. ¶¶ 33-44. This count was resolved by a consent agreement, which became final on May 17, 2005.[3] Count III is not at issue in this appeal.

B. Initial Decision

The case was assigned to the ALJ, who conducted an eight-week trial. Forty-two witnesses testified, and the ALJ admitted more than 1600 exhibits into evidence.

The ALJ issued his Initial Decision on October 17, 2005. The ALJ first made careful and extensive findings of fact about the merging parties, the health care sector, and the transaction's competitive effects. The ALJ then started his legal analysis by holding that the Clayton Act requires complaint counsel to prove the relevant product and geographic markets. ID 131. Complaint counsel argued at trial that the relevant product market was general acute care inpatient services sold by hospitals to private health insurance companies, which typically are referred to as managed care organizations or "MCOs." *Id.* ENH maintained that the product market also included hospital-supplied outpatient services. ID 131-32; RPTB 16-17. The ALJ rejected ENH's position and found that MCOs cannot substitute outpatient for inpatient services, determining that ENH had set its inpatient rates without concern that patients would switch from inpatient to outpatient services. ID 133.[4]

The ALJ then defined the relevant geographic market. ID 135-49. Complaint counsel argued that the geographic market consisted of the geographic triangle immediately surrounding the three merging hospitals, which contained only the ENH hospitals. ID 137. Respondent advocated that the geographic market included the three ENH hospitals and at least six other hospitals (Lake Forest, Advocate Lutheran General, Rush North Shore, St. Francis, Condell, and Resurrection). *Id.* The ALJ held that the geographic market was larger than that proposed by complaint counsel, but smaller than the market advocated by respondent, finding that the geographic market consisted of the area that covered the three ENH hospitals and four other hospitals – Lake Forest, Advocate Lutheran General, Rush North Shore, and St. Francis. ID 143.

The ALJ next assessed the competitive effects of the merger. ID 150-69. Using the seven-hospital geographic market, the ALJ found that the ENH hospitals had a 35% pre-merger market share based on inpatient revenues. IDF ¶ 317. The ALJ then calculated a pre-merger Herfindahl-Hirschman Index ("HHI")[5] of 2355, and a post-merger HHI increase of 384 to 2739.

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[3] *In re Evanston Northwestern Healthcare Corp.*, Dkt. No. 9315 (FTC May 17, 2005), *available at* http://www.ftc.gov/os/adjpro/d9315/050520do.pdf.

[4] Relying on the U.S. Court of Appeals for the Seventh Circuit's decision in *United States v. Rockford Memorial Corp.*

IDF ¶¶ 314-19. The ALJ found that, under § 1.51 of the Department of Justice's and Federal Trade Commission's Merger Guidelines, the HHI change and post-merger HHI created a presumption that the merger was likely to create or enhance market power. IDF ¶¶ 314-25; ID 150-52.

The ALJ also considered direct evidence of the transaction's effect on competition. The ALJ found that senior officials at Evanston and Highland Park had predicted before the merger that the transaction would put the combined firm in a better bargaining position with the MCOs, that ENH's revenues increased substantially after the merger, and that ENH management believed that the merger had "translated to better managed care contracts." ID 155-60, 165. The ALJ also relied heavily on the econometric evidence presented at trial, which he found, viewed in conjunction with other evidence, supported a finding that market power was "the only plausible, economically sound, and factually well-founded explanation for ENH's post-merger relative price increases." ID 166-69.

The ALJ also concluded that entry by new hospitals, or expansion by existing hospitals, was not likely to replace the competition lost due to the merger. ID 194-95. Finally, the ALJ concluded that the merger had not produced significant improvements in the quality of care at Highland Park that offset the anticompetitive exercise of market power. ID 175-92.

Based on his findings of fact and conclusions of law, the ALJ ruled that the transaction violated the Clayton Act, as alleged in Count I of the complaint. ID 200.[6] The ALJ dismissed Count II as moot, but held that, if it were not moot, he would have dismissed it because complaint counsel had not established as part of Count II that respondent possessed a substantial share of a relevant market. ID 200-01. As stated, the ALJ ordered ENH to divest Highland Park. ENH appealed the ALJ's Initial Decision to the Commission. Complaint counsel cross-appealed the ALJ's decision not to make a ruling against respondent under Count II and also requested that the Commission supplement and revise the ALJ's divestiture order.[7]

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[6] The ALJ rejected several other arguments made by ENH. First, he rejected ENH's contention that its nonprofit status reduced the likelihood of competitive harm, finding that there was no evidence in the record that ENH's nonprofit status had restrained its efforts to negotiate higher prices. ID 192-94. Second, the ALJ rejected ENH's argument that the merger was necessary for Highland Park's economic survival, concluding that, at the time of the merger, Highland Park was able to meet its financial obligations for the near future, and was in no danger of entering bankruptcy or exiting the market. ID 197. Finally, the ALJ rejected ENH's position that the merger of Evanston and Highland Park could not violate the Clayton Act because, at the time of the merger, the two hospitals were not separate entities. ID 197-99. He found that the two hospitals were separate entities and that the transaction was subject to the Clayton Act. ID 197-99. Respondent did not identify this last issue as one of the "questions presented" on appeal, RB 23, and only briefly referenced it at the end of its brief in the context of discussing the appropriate remedy. RB 86. Accordingly, the Commission views the issue as not properly before us. In any case, for the reasons set forth by the ALJ, the Commission also finds that the transaction was subject to the Clayton Act.

[7] Complaint counsel also requested that the Commission vacate the ALJ's order of September 24, 2006, which denied complaint counsel's motion to compel the production of certain documents on

B. Competition Among Hospitals for MCO Contracts

MCOs enter into two basic types of contracts with hospitals – "per diem" and "discount off charges." In per diem contracts, there is an all-inclusive per day charge, based on the class of services, for each day that the patient is in the hospital, regardless of the amount or the total cost of the services that the patient receives. IDF ¶ 178; JX 8 at 8-9. Under discount off charges contracts, the MCO agrees to pay the hospital a rate for each service performed. The paid rate is equal to the hospital's list price of the service, discounted by an agreed upon percentage. IDF ¶ 173. The list prices are contained in the hospital's "chargemaster." IDF ¶ 175. Thus, the prices paid by MCOs increase as a hospital increases the prices in its chargemaster. All else being equal, MCOs usually prefer per diem contracts because they allow for greater certainty about MCOs' costs. IDF ¶¶ 179-80; TR 5740 (Sirabian).

MCOs do not typically select every hospital in a geographic region for their HMO networks, IDF 158, and they do not designate every provider as preferred for their PPOs. IDF ¶¶ 158-67; TR 2457-60 (Haas-Wilson). Rather, physicians and hospitals compete to be included in HMO and PPO networks. IDF ¶ 109. The central terms of competition are price, quality of service, and geographic proximity to the MCO's members. IDF ¶¶ 109, 121. The use of a business model that potentially excludes some providers allows MCOs to leverage competing providers against each other to negotiate lower prices. TR 2470 (Haas-Wilson); TR 6189 (Noether). Through this competitive process, MCOs seek to assemble high-quality networks at competitive rates that include a sufficient number of hospitals and physicians to attract employers and their employees. IDF ¶¶ 109, 121, 158.

C. Competition Among MCOs to be Selected by Employers

As stated, a majority of people in the United States who have private health insurance obtain it through their employers. TR 2454 (Haas-Wilson).[11] Typically, the employer selects which MCOs and plans to offer its employees. TR 2460-61 (Haas-Wilson). Because employees sometimes consider the quality of health care benefits when they decide where to accept employment, many employers try to provide health care plans that are attractive to their employees. IDF ¶ 120; TR 2407 (Elzinga). Thus, employer demand for MCO services is a partially derived demand from employee preferences. TR 5936-37 (Noether); TR 2407 (Elzinga). As a general matter, employees prefer health plans that offer a broad choice of hospitals (and physicians) that are geographically convenient for them and their families. TR 2461 (Haas-Wilson); TR 485 (Mendonsa); TR 568 (Mendonsa), *in camera*. At the same time, employees (and employers) want to limit the amount of money that they spend on employee health benefits. TR 2461 (Haas-Wilson).

Consequently, MCOs compete to have employers offer their plans based on price, quality, the geographic convenience of the hospitals and physicians in their networks, and other factors relevant to employees and employers. IDF ¶¶ 114, 117, 252-53; TR 2407-08 (Elzinga);

[11] As respondent notes, employers generally are self-insured or fully-insured. RFF ¶ 54. Self-insured employers are responsible for the actual medical expenses of their employees but pay MCOs to access and manage the network and to process claims. TR 480 (Mendonsa). Fully-insured employers are liable only for premiums but not for the actual healthcare dollars spent by employees. RX 1743 at 6.

TR 2803 (Haas-Wilson), *in camera*. Similarly, because some employers offer their employees several plans from which to choose, TR 491 (Mendonsa), an MCO needs to offer an attractive network to convince employees to enroll in its plan as opposed to a plan from one of its competitors. TR 2461 (Haas-Wilson); TR 5948 (Noether).

D. Consumer Harm from Increases in Hospital Prices

Consumers are harmed when hospital prices increase due to the exercise of market power, even though they usually do not pay directly the full price of a hospital visit. TR 239 (Ballengee), *in camera*; TR 483-84 (Mendonsa); TR 549 (Mendonsa), *in camera*. When a hospital succeeds in raising its prices to an MCO, the MCO generally passes on those costs to the employers, which in turn pass them on to the employees. TR 483-84 (Mendonsa); TR 171-72, 179, 196-97 (Ballengee); TR 2463 (Haas-Wilson). Similarly, self-insured employers often pass on higher hospital costs to their employees. IDF ¶ 189. Thus, if a hospital can increase its market power by merging with a close competitor, the resulting price increases harm consumers.

Significantly, consumers who use a particular hospital will not necessarily pay for all of a price increase imposed by that hospital. Much of the cost may be borne by consumers who always use other hospitals. This is because consumers usually pay only the deductible or co-payment when they use a hospital, and MCOs do not necessarily vary these amounts for in-network or preferred providers, even when there is substantial variation among these providers' prices to the MCO. TR 2464 (Haas-Wilson). Rather, MCOs often pass on the higher costs to employers and then consumers through higher premiums or across-the-board increases to deductibles and/or co-payment amounts. TR 483-84 (Mendonsa); TR 171-72 (Ballengee). This dynamic does not reduce the anticompetitive effects of hospital price increases to MCOs due to market power, but it does alter who incurs the costs of those effects.

E. Types of Hospital Services

Hospitals provide a wide range of services, ranging from minor outpatient procedures to complex organ transplants and experimental treatments. TR 158-59 (Ballengee); TR 622 (Neary); TR 6159-60 (Noether). There is not precise agreement about how to categorize hospital services, but the record reflects that it is appropriate to classify hospital services into three broad categories: primary, secondary, and tertiary services. Primary services generally consist of internal medicine, obstetrics, and minor surgery. IDF ¶ 197; TR 6159 (Noether); TR 1293 (Neaman). Some primary services are provided on an outpatient basis. Outpatient services generally are considered to be any service for which a patient remains in the hospital for less than twenty-four hours. TR 302 (Newton); TR 144 (Ballengee).

Secondary services largely consist of inpatient medical services provided by a specialist, including standard surgery, and generally require more skill, expertise, or equipment than primary care services. IDF ¶ 198; TR 1294 (Neaman); TR 6159 (Noether). Tertiary services

refer to major surgical or medical procedures that are done within a hospital setting. IDF ¶ 199; TR 1294 (Neaman).[12]

F. Parties

1. Evanston Northwestern Healthcare

Evanston owned two hospitals, Evanston Hospital and Glenbrook Hospital
Evansn Hosnital

G. Other Hospitals in the Geographic Region

Evanston, Glenbrook, and Highland Park Hospitals are located in the affluent suburban towns north of Chicago, generally referred to as the North Shore suburbs. IDF ¶ 227; TR 516-17 (Mendonsa), *in camera*; TR 901-02 (Foucre); TR 360 (Newton); TR 602 (Neary). The North Shore suburbs start at Evanston and include Glencoe, Wilmette, Winnetka, Kenilworth, Highland Park, and Lake Forest. TR 162-63 (Ballengee); TR 484 (Mendonsa). Regarding the hospital coverage in the area, one of the MCO witnesses testified that a person traveling up the North Shore from Chicago "would stop at Evanston" and then "Highland Park would be the next hospital." TR 1426 (Holt-Darcy).

The three ENH hospitals form a triangle, one long side of which runs along Lake Michigan between Highland Park and Evanston Hospitals. Evanston is approximately 13.7 miles and 27 minutes south of Highland Park. IDF ¶ 21. Glenbrook is located 12.6 miles and 26 minutes west of Evanston Hospital and approximately 7 miles southwest of Highland Park. IDF ¶ 10.

There are approximately 100 hospitals in the Chicago metropolitan area, TR 5982 (Noether), but no other hospitals within the triangle formed by the three ENH hospitals. TR 901-02 (Foucre); TR 167-68 (Ballengee). There are, however, other nearby hospitals, including nine hospitals that are closer to Evanston, Glenbrook, or Highland Park than they are to each other. RX 1912 at 20, 21, *in camera*; RB 29. These hospitals include:

1.

4. Resurrection

Resurrection Medical Center is 12.1 miles southwest from Evanston, approximately a 25-minute drive. IDF ¶ 298; RX 1912 at 20, *in camera*. Resurrection has 350 beds. IDF ¶ 299; RX 1912 at 60, *in camera*.

5. Holy Family

Holy Family is 11.3 miles west of Evanston, approximately a 23-minute drive. RX 1912 at 20-21, *in camera*. Holy Family has 260 staffed beds. IDF ¶ 305.

6. Swedish Covenant

Swedish Covenant is an urban hospital located 6.8 miles south of Evanston, approximately a 19-minute drive. IDF ¶ 306; RX 1912 at 20, *in camera*. Swedish Covenant has 325 beds, IDF ¶ 306, and provides primary, secondary, and tertiary services. CFF 1935.

7. Northwestern Memorial

Northwestern Memorial is located in downtown Chicago, roughly 13 miles south of Evanston, approximately a 26-minute drive. IDF ¶ 308; RX 1912 at 20, *in camera*. Northwestern has more than 700 beds, and provides primary, secondary, and tertiary services. IDF ¶ 308. Northwestern Memorial is affiliated with the Northwestern Medical School. *Id.*

8. Lake Forest

Lake Forest is 6.1 miles northwest of Highland Park, approximately a 13-minute drive. IDF ¶ 266. Lake Forest is a 142-bed hospital, and provides primary and secondary services, including a significant level of obstetric services. IDF ¶ 267; TR 1304 (Neaman).

9. Condell

Condell is 12.7 miles northwest of Highland Park, approximately a 24-minute drive. IDF ¶ 293; RX 1912 at 20, *in camera*. Condell is a 163-bed hospital and provides primary, secondary, and some level of tertiary services. IDF ¶¶ 294-95.

H. Parties' Pre-Merger Objectives

The parties signed a letter of intent to merge on July 1, 1999, and entered into the merger agreement in October 1999. IDF ¶¶ 81, 83. The parties completed the merger on January 1, 2000. IDF ¶ 85. The record reflects, and we find, that the parties had three objectives for the merger – raising prices, achieving economies of scale, and developing new programs at Highland Park. Mark Neaman, who joined Evanston in 1973 and has served as its Chief Executive Officer since 1992, TR 1278 (Neaman), testified that he hoped that Evanston's merger with Highland Park would allow it to obtain better prices from MCOs. TR 1036 (Neaman). The parties' pre-merger business records state that Evanston's most senior officials thought that the merger would

allow Evanston to do just that. At a January 4, 1999 meeting between Evanston and Highland Park's board members and medical staff leaders, Evanston representatives identified the merger

"Growth Opportunities from the Highland Park Merger," Bain wrote that "[b]etter integration with the ENH Medical Group and the addition of Highland Park will substantially improve ENH's leverage." CX 74 at 19.

In October and November of 1999, Bain reviewed and analyzed Evanston's and Highland Park's contracts. CX 74; CX 75. Bain concluded that the merger would enable Evanston to grow net income by increasing revenue, due in part to higher prices and greater market share, and to reduce costs through economies of scale, elimination of duplicate costs, and capital investment savings. CX 74 at 3. Bain also determined that the combined Evanston and Highland Park Hospitals would have "significant leverage with payors as [it has] the largest [number of] admissions" among other Chicago area hospitals. CX 74 at 15. An Evanston senior official testified at trial that he felt that Bain's analyses were accurate and helpful. TR 1161 (Hillebrand).

I. ENH's Post-Merger Price Increases

After the merger closed, ENH rapidly increased the prices that it charged to most of its MCO customers to the higher of Evanston's or Highland Park's pre-merger rate for a particular service. IDF ¶¶ 348-54. ENH then set about negotiating a single contract for all three of its hospitals with each MCO. IDF ¶¶ 355-66; TR 1528 (Holt-Darcy), *in camera*. ENH did not offer the MCOs the option to enter into separate contracts for the hospitals, or to decline to use one or more of the three hospitals. IDF ¶¶ 355-66. In addition, ENH sought to raise its prices through the conversion of portions of some of its contracts from per diem to discount off charges payment structures. IDF ¶¶ 373-77.

The record reflects that ENH's post-merger negotiation strategy was highly successful. ENH negotiated with its MCO customers a single contract for all three of its hospitals with substantial price increases, and converted a number of its contracts from per diem to discount off charges structures. CX 5174 at 11, *in camera*; CX 5 at 5; TR 252 (Ballengee), *in camera*. In addition, from 2002 to 2003, ENH increased its chargemaster rates four times. IDF ¶ 384; RX 1687 at 3, *in camera*.

As we describe in detail below in our findings about the econometrics, the actual amount of ENH's price increases depends on the calculation method. Using data that included all patients in Illinois, complaint counsel's economist, Deborah Haas-Wilson, computed that from 1998 through 2002, ENH increased its *per day* average net prices by 48% for all patients; 46% for the commercial and self-pay patients; and 46% for commercial, self-pay, self-administered, and HMO patients. CX 6279 at 7, *in camera*.[13] On a *per case* basis, the corresponding average net price increases from 1998 to 2002 were 30%, 27%, and 26%, respectively. *Id.*, *in camera*.

Using data from individual MCOs, Haas-Wilson calculated the level of ENH's *per case* post-merger average net price changes for Aetna, Blue Cross/Blue Shield ("BCBS"), Humana,

[13] As we explain below, Haas-Wilson used various techniques to construct and estimate a "net price," which consisted of the sum of (1) the payment from the MCO to the hospital, and (2) the payment from the *patient* to the hospital.

United Healthcare of Illinois ("United"), and Great West. She determined that ENH increased its *per day* average net prices by the following amounts: Aetna (48% to 56%); BCBS (-12% (decrease) to 15%); Great West (79%); Humana (57% to 82%); and United (77% to 202%). CX 6279 at 3, *in camera*; CX 6282 at 5, *in camera*. The corresponding *per case* average net price increases were: Aetna (28% to 89%); BCBS (10% to 27%); Great West (42%); Humana (27% to 73%); and United (62% to 128%). CX 6279 at 3, 5, *in camera*. The ranges of price increases reflect that the price increases varied by the type of plan offered by the MCOs (*e.g.*, HMO or PPO).

Respondent's economist, Jonathan Baker, did not compute a market-wide price increase. Instead, Baker used two different methods to compute price changes from 1998 to 2003 for Aetna, BCBS, Humana, and United. The first calculation found the following *per case* average net price increases for Evanston, Glenbrook, and Highland Park: Aetna (35%); BCBS (13%); Humana (83%); and United (138%). RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. The *per case* average net price increase across all four payors was 42%. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. The second calculation found the following *per case* average net price increases for only Evanston and Glenbrook: Aetna (25%), BCBS (2%), Humana (60%), United (140%), and an average *per case* increase across all four payors of 29%. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*.[14]

Post-merger ENH documents indicate that ENH executives believed that the merger gave ENH the market power needed to achieve these price increases. The minutes of a September 27, 2000 meeting of the ENH board's finance committee state that ENH's President Neaman attributed the price increases, at least in part, to the transaction: "[T]he larger market share created by adding Highland Park Hospital has translated to better managed care contracts." CX 16 at 1. The next month, Neaman issued a memorandum entitled "Final Report - Merger Integration Activities" that stated: "Some $24 million of revenue enhancements have been achieved - mostly via managed care renegotiations," and "*none of this could have been achieved by either Evanston or Highland Park alone*. The 'fighting unit' of our three hospitals and 1600 physicians was instrumental in achieving these ends." CX 17 at 1-2 (emphasis added).

Portions of the trial testimony from Highland Park's officials were consistent with these documents. Highland Park's CEO before the merger, Spaeth, contrasted the post-merger price increases against Highland Park's pre-merger negotiations, testifying that before the merger he did not see an opportunity to raise rates. TR 2172-73 (Spaeth). Terry Chan, Highland Park's primary negotiator before the merger, testified that the merger gave ENH additional bargaining power. TR 709-10 (Chan); IDF ¶ 367.

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[14] Baker also performed these calculations omitting obstetrics cases because, as discussed below, there were some ambiguities in the data with respect to obstetrics. The corresponding *per case* average net price increases for Evanston, Glenbrook, and Highland Park Hospitals were: Aetna 34%, BCBS 5%, Humana 84%, and United 111%, with an average across all four payors of 37%. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*. The corresponding *per case* price increases for only Evanston and Glenbrook were: Aetna 31%, BCBS 3%, Humana 82%, and United 124%, with an average across all four payors of 35%. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*.

To summarize, we find that the documentary evidence and testimony support the conclusion that senior officials at Evanston and Highland Park anticipated that the merger would give them greater leverage to raise prices to MCOs, the merged firm did raise its prices to MCOs immediately and substantially after consummation of the transaction, and the same senior officials attributed the price increase in part to increased bargaining leverage with payors produced by the merger.

J. MCO Testimony

Complaint counsel presented testimony from five MCOs at trial.[15]

1. Private Healthcare Systems ("PHCS")

PHCS develops networks of hospitals, doctors, and other ancillary services, and markets

some of its customers had informed PHCS that they could not market their health plans without ENH in the network "[b]ecause there would be a large [geographic] area that would be uncovered." TR 179-81 (Ballengee). Ballengee's assessment of the market conditions is consistent with a document prepared for ENH by Bain at the time of the merger, which stated that ENH had "significant leverage in negotiations with PHCS as they have [a] strong North Shore presence and need us in their network." CX 1998 at 44.

On cross-examination, Ballengee also stated that she believed that Advocate Lutheran General and St. Francis were significant competitors to Evanston, and that Lake Forest was a significant competitor to Highland Park. TR 211-12 (Ballengee). She also stated that for purposes of forming a network, Advocate Lutheran and possibly Rush North Shore and Advocate Northside were comparable to Evanston. TR 191-93 (Ballengee).

We find that Ballengee's testimony, viewed in conjunction with the Bain document, supports the conclusion that Evanston and Highland Park were close substitutes that likely constrained each other's pricing to PHCS before the merger. Ballengee's testimony that Advocate Lutheran General, St. Francis, and possibly Rush North Shore and Advocate Northside were significant competitors to Evanston, and that Lake Forest was a significant competitor to Highland Park, does not undermine this conclusion. The issue is not whether other hospitals competed with the merging parties, but whether they did so to a sufficient degree to offset the loss of competition caused by the merger. The fact that PHCS retained ENH after it substantially raised prices at a rate that exceeded the average rate increase of other hospitals, rather than drop ENH and use other hospitals, also supports the finding that, for PHCS, competition from these other hospitals was not sufficient to constrain ENH from exercising market power.[17]

2. Aetna

Robert Mendonsa, who was an Aetna general manager responsible for sales and network contracting, testified about Aetna's negotiations with ENH after the merger. TR 475-76 (Mendonsa). Prior to the merger

concerned about the merger because it had resulted in "three extremely important hospitals negotiating together in a very important geography" and because it would "severely compromise[]" Aetna's ability to sell its plans without the three hospitals. TR 530, 518 (Mendonsa), *in camera*.

On January 18, 2000, ENH wrote a letter to Aetna, requesting that it assign Highland Park's rates to ENH until it negotiated a new hospital agreement with Aetna. RX 769 at ENH JL 2817. ENH's letter also contained an initial proposal for a new contract. *Id.*, *in camera*. Because Evanston's rates for Aetna had not increased since 1996, Mendonsa expected ENH to ask for a price increase of approximately 10%. TR 534 (Mendonsa). By Aetna's estimates, however, ENH sought a 65% increase. TR 533 (Mendonsa), *in camera*.

On March 14, 2000, ENH invoked the termination clause of the existing pre-merger contract, giving Aetna notice that it would terminate the contract if the parties could not reach an agreement. CX 123 at 1; TR 546-47, 531 (Mendonsa), *in camera*. In June 2000, Aetna and ENH ultimately agreed to a contract that

We find that Mendonsa's testimony that Aetna could have walked from Evanston pre-merger "because [it] still had Highland Park and . . . Northwestern in the city," TR 530 (Mendonsa), *in camera*, and that "[s]omeone that's going to Evanston is not going to drive all the way out to Park Ridge, which is where [Advocate] Lutheran General is" located, TR 542 (Mendonsa), *in camera*, loosely suggests that Evanston and Highland Park were relatively close substitutes from Aetna's perspective. His testimony that Evanston competed with Northwestern, Lutheran, St. Francis, and Rush North Shore, and that Highland Park competed with Lake Forest, neither supports nor undermines complaint counsel's case because it does not indicate whether competition from those hospitals could offset the loss of competition caused by the merger.

3. One Health

Patrick Neary testified on behalf of One Health, which today is called Great West. When Evanston and Highland Park merged, Neary was Director of Network Development and Provider Relations, and he negotiated One Health's contract with ENH after the merger. TR 582 (Neary).

In December 1999, the month before the merger closed, Evanston contacted One Health

basis) increased by 65.1% from 1999 to 2000, and by 28.7% from 2000 to 2001. TR 1076-78 (Foucre), *in camera*; CX 21 at 9, *in camera*. Foucre was not involved in the negotiation of the 2000 contract. The United employee who was responsible for the negotiations was deceased at the time of trial. TR 887 (Foucre).

In 2002, United analyzed ENH's prices, concluded that they were higher than United's average hospital reimbursement rate, and sought to renegotiate them. TR 888, 890 (Foucre).[20] United decided that it could not afford to drop ENH because

> when you look at the three hospitals that make up the Evanston Northwestern Healthcare system and look at . . . the triangle that they create, that area of Chicago . . . is very heavily populated by some of the most affluent communities in the Chicago area, and a result of that, the senior executives and the decision-makers of not only our existing customers but also our prospective customers would be residing within that area, and because, while there might be hospitals to the south and to the north, there are no other facilities, it did not seem feasible that we could have a viable network without Evanston Northwestern Healthcare.

TR 901-02 (Foucre). Consequently, United did not believe that it could satisfy its customers without ENH, IDF ¶ 408; TR 901-02, 925-26 (Foucre), even though Lake Forest, Rush North Shore, St. Francis, and several other nearby hospitals were in its network at the time. IDF ¶ 408; TR 931-34 (Foucre).

Foucre testified that United was sufficiently concerned about ENH's price levels that she met with local large employers, including Kraft, to discuss them. TR 904 (Foucre). The customers advised Foucre that they did not believe that it was feasible to remove the ENH hospitals from the network. TR 905-06 (Foucre). In May 2003, United arranged a meeting between a number of local employers and ENH officials to discuss the pricing levels. TR 908 (Foucre). In 2004, United and ENH agreed to a contract that reduced ENH's rates but, in United's view, did not eliminate ENH as an outlie

Foucre's testimony that hospitals to the north of Highland Park and the south of Evanston were less desirable to residents of the North Shore suburbs suggests that the geographic

MCOs. Their second step was a difference-in-differences analysis, which consisted of a comparison of ENH's pre- to post-merger change in average net price to the pre- to post-merger changes in average net price for various control groups. Their third step was a series of linear regressions using the same control groups.

Haas-Wilson ultimately concluded that, coincident with the merger, average net prices increased by higher-than-predicted levels for four of the five MCOs in the following ranges:[23] Aetna (21.3% to 32.5%); Humana (12.3% to 16.6%); United (75.3% to 93.2%); and Great West (25.1% to 39.5%). CX 6279 at 18-19, *in camera*; CX 6282 at 6, *in camera*; TR 2619-31 (Haas-Wilson), *in camera*. The results were statistically significant. *Id.* For BCBS, Haas-Wilson found that ENH's actual post-merger average net prices were not statistically-significantly higher than her predicted post-merger average net ENH prices. CX 6279 at 18, *in camera*. Haas-Wilson also estimated that there were market-wide, higher-than-predicted merger-coincident average net price increases of 11% to 18%. CX 6279 at 20, *in camera*. She concluded that these price increases were due to market power created by the merger because she believed that she had factored out, through empirical and non-empirical analyses, the effects of the most likely competitively-benign explanations for the price increases. TR 2451, 2657 (Haas-Wilson); TR 2586-88, 2645-48, 2698-2733 (Haas-Wilson), *in camera*.

Baker also found substantial higher-than-predicted average net price increases in acute inpatient services of 9% or 10%. TR 4620, 4645-46 (Baker), *in camera*; RX 2040 at 3, *in camera*; DX 7068 at 21, ¶ 47, *in camera*. Because respondent maintained that hospital-based outpatient services were also in the market, Baker also performed the same calculation for both inpatient and hospital-based outpatient services combined. Baker estimated a higher-than-predicted average net price increase of 11% or 12% for these services combined. TR 4602-03 (Baker); TR 4617-18 (Baker), *in camera*; DX 7068 at 21, ¶ 46, *in camera*. Baker testified that these estimates did not account for ENH's learning-about-demand and for potential post-merger changes in quality. TR 4602-03 (Baker). We address these issues below.

We describe the details of Haas-Wilson's and Baker's analyses separately, explain how they were similar and how they differed, and then state the findings and conclusions that we draw from their work.

1. Haas-Wilson's Empirical Analyses

Haas-Wilson tried to determine whether any of the following ten factors caused a post-merger price increase by ENH:

1. increases in costs that also affected other hospitals in the Chicago area, TR 2482 (Haas-Wilson);

2. changes in regulation that also affected other hospitals in the Chicago area, TR 2483-84 (Haas-Wilson);

[23] The ranges are due to variations in the measured increases across econometric specifications.

3. increases in hospital demand that affected other hospitals in the Chicago area, TR 2484 (Haas-Wilson);

4. increases in quality at ENH relative to other hospitals in the Chicago area, TR 2485 (Haas-Wilson);

5. changes in the mix of patients (*i.e.*, the complexity and type of the cases at each hospital) at ENH relative to other hospitals in the Chicago area that resulted in greater "resource intensity," and thus greater costs, TR 2485-86 (Haas-Wilson); TR 2594 (Haas-Wilson), *in camera*;

6. changes in the mix of customers to more Medicare/Medicaid patients at ENH relative to other hospitals in the Chicago area, TR 2486 (Haas-Wilson);

7. increases in teaching intensity (*i.e.*, the number of residents and interns per bed) at ENH relative to other hospitals in the Chicago area, TR 2486-87 (Haas-Wilson); TR 2604 (Haas-Wilson), *in camera*;

8. decreases in the prices of outpatient services charged to MCOs, TR 2487-88 (Haas-Wilson);

9. ENH's learning-about-demand for hospital services from Highland Park's pricing data, TR 2488 (Haas-Wilson); and

10. an increase in market power due to the merger, TR 2488-89 (Haas-Wilson).[24]

Haas-Wilson used four data sources to conduct her analyses: (1) commercial payor claims data from MCOs in the Chicago area ("payor data"); (2) data received from the consulting firm NERA; (3) data received from the FTC's Civil Investigative Demand to ENH; and (4) data from the Illinois Department of Public Health ("Illinois data"). TR 2495-500 (Haas-Wilson). Because only the payor and Illinois data were sufficiently comprehensive for Haas-Wilson to perform her regressions – which is the critical part of her analyses – we limit our discussion to Haas-Wilson's analyses of these two data sets.

a. Simple Price Change Statistic

Haas-Wilson began her analysis by calculating a simple post-merger price statistic. TR 2489 (Haas-Wilson).

[24] Haas-Wilson acknowledged that this was not an exhaustive list of potential explanations for the post-merger price increases at ENH. TR 2481 (Haas-Wilson). Other explanations would include: (a) an increase in demand at ENH relative to other hospitals, and (b) an increase in costs at ENH relative to

(1) Price Changes Calculated from the Payor Data

The payor data were relatively comprehensive. The data (a) covered a five-year period from 1998 to 2002, CX 6279 at 3, *in camera*;[25] (b) included data for the three ENH hospitals and

For the payor data, Haas-Wilson delineated the pre- and post-merger periods for each MCO by the date of its first contract renegotiation after the merger. TR 2511 (Haas-Wilson), *in camera*. Consequently, each payor had different pre- and post-merger periods.[30] Haas-Wilson appeared to construct a hospital service "net price" that consisted of the sum of (1) the payment from the MCO to the hospital, and (2) the payment from the patient to the hospital. TR 2496-97, 2576, *in camera* (Haas-Wilson).[31] From this measure, she apparently then calculated, on a per-patient basis, (1) an average net price *per case*, and (2) an average net price *per day*. TR 2514 (Haas-Wilson), *in camera*. We believe that the price-per-case metric is more relevant than the price-per-day calculations because presumably MCOs are more focused on their total cost for a procedure rather than the amount of time that it takes to perform. Consequently, we report Haas-Wilson's *per case* calculations in text, and her *per day* calculations in footnotes.

Haas-Wilson calculated that ENH's average net price *per case* increased post-merger for all five of the MCOs that she examined: Aetna (28% to 89%); BCBS (10% to 27%); Humana (27% to 73%); United (62% to 128%), CX 6279 at 3, *in camera*; and Great West (42%), CX 6282 at 5, *in camera*. The ranges of percentages reflect that Haas-Wilson performed the calculations for multiple plans for the MCOs.[32]

outpatient services. IDF ¶ 576.[33] Haas-Wilson calculated the ratio of the net receipts of the hospitals to their gross billing amounts and then multiplied that ratio by the billing information in the Illinois data set to estimate the actual net price. TR 2529 (Haas-Wilson), *in camera*. Haas-Wilson testified that, while there is potential bias in such an approach, any bias would be small. TR 2529-30 (Haas-Wilson), *in camera*; IDF ¶ 579.

For the Illinois data, Haas-Wilson calculated the post-merger increases in the average net price *per case* for three broad categories of patients: all patients (30%); commercial and self-pay patients (27%); and commercial, self-pay, self-administered, and HMO patients (26%). CX 6279 at 7, *in camera*.[34]

b. Difference-in-Differences Analysis

Haas-Wilson correctly recognized that her calculations of the simple changes in average net price using the payor and Illinois data sets did not demonstrate that the changes in net prices resulted from post-merger market power because they did not control for other factors that might explain the increases. TR 2540-41 (Haas-Wilson), *in camera*. Haas-Wilson's second step was to use a difference-in-differences ("DID") analysis to attempt to control for her first three competitively-benign potential causes of the price increases: changes in cost, demand, and regulation common across both ENH and her control groups. TR 2542-44 (Haas-Wilson), *in camera*. The DID analysis consisted of a comparison of ENH's pre- to post-merger change in average net price to the pre- to post-merger changes in average net price for each of three control groups. TR 2546-47 (Haas-Wilson), *in camera*; DX 7027 at 1. Haas-Wilson compared the average percentage *changes* in ENH's prices to those of the control groups because hospitals are differentiated and thus a simple cross-section comparison of price *levels* may be less informative. TR 2492-95 (Haas-Wilson). (Baker also measured percentage changes in ENH's prices. RX 2040 at 1-3, *in camera*.)

The reasoning underlying this approach was that changes in cost, demand, and regulation probably had a simultaneous and equal impact on the net prices charged by the ENH hospitals and hospitals that were similarly situated. If so, and if the control groups were reasonable and there were no other changes, her DID analysis enabled her to factor out the influence of the three competitively-benign variables. TR 2548 (Haas-Wilson), *in camera*.

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[33] "The Medicare cost reports are reports that hospitals are required to file with the Federal Government if they receive Medicare dollars." TR 2527 (Haas-Wilson), *in camera*. They include "information on both net payments and gross payments by hospital for inpatient and outpatient services." TR 2529 (Haas-Wilson), *in camera*. The reports also appear to have included "the percent of patients receiving care at [each] hospital that are covered by Medicaid or the percent of patients at [each] hospital that are covered by Medicare." TR 2600 (Haas-Wilson), *in camera*.

[34] The average net *per day* price increases were: all patients (48%); commercial and self-pay patients (46%); and commercial, self-pay, self-administered, and HMO patients (46%). CX 6279 at 7, *in camera*.

Haas-Wilson used three control groups for her DID analyses: (1) all general acute care hospitals in the Chicago PMSA;[35] (2) all general acute care hospitals in the Chicago PMSA that were not involved in a merger between 1996 and 2002; and (3) all general acute care hospitals in the Chicago PMSA involved in some teaching activity during the study period. TR 2548-49 (Haas-Wilson), *in camera*. The purpose of using multiple control groups is that if results are consistent across a number of different econometric specifications, all other things equal, the regression analyses are more likely to be correct.[36]

For the payor data, Haas-Wilson excluded hospitals with fewer than 100 admissions, during both the pre- and post-merger periods, for each payor plan.[37] Consequently, a control group might be composed of different hospitals depending on the particular payor plan. TR 2557, 2560 (Haas-Wilson), *in camera*.

Using the payor data, Haas-Wilson tried to use the DID analysis to determine whether changes in cost, demand, or regulatory changes common across both ENH and her control groups explained all of ENH's post-merger increases in average net price. CX 6279 at 8-9, *in camera*; CX 6282 at 5, *in camera*; TR 2583 (Haas-Wilson), *in camera*. Haas-Wilson found that

average net prices beyond that of the control groups.[39] The average net price *per case* increases for the three categories of patients were as follows: all patients (21% across all three control groups); commercial and self-pay patients (14% to 16%, depending on the control group); and commercial, self-pay, self-administered, and HMO patients (13% to 15%, depending on the control group). CX 6279 at 11, *in camera*.[40] These results were all statistically significant at the one percent level. Thus, Haas-Wilson concluded that her DID analysis using the Illinois data also supported rejection of the first three competitively-benign hypotheses for an increase in average net prices. TR 2585-86 (Haas-Wilson), *in camera*.

She also used the DID framework to test whether a decrease in the average net price of outpatient services (her eighth potential alternative) was the cause of the substantial post-merger price increases at the ENH hospitals. TR 2607 (Haas-Wilson), *in camera*. The record indicates that MCOs negotiate the prices of both inpatient and outpatient services at the same time. Thus, an MCO might agree to higher prices for inpatient services in exchange for reduced prices for outpatient services. Using the payor data only (because the Illinois data did not contain sufficient information on outpatient cases), Haas-Wilson found that the average net prices for outpatient services at ENH increased by at least as much as they did at hospitals in her control groups. CX 6279 at 17, *in camera*. These results, which were statistically significant, implied that the measures of the average net price changes for inpatient cases alone likely would understate the total post-merger price increases at ENH, if the case mix of outpatient services at ENH did not increase relative to the control groups. TR 2610-15 (Haas-Wilson), *in camera*.

Finally, Haas-Wilson used the DID method to determine whether changes in patient mix, customer mix, and teaching intensity were significantly different between ENH and the control hospitals (*i.e.*, her explanations five, six, and seven). CX 6279 at 13-16, *in camera*; TR 2594-2606 (Haas-Wilson), *in camera*. Patient mix measured the complexity (and type) of the cases at each hospital, TR 2594 (Haas-Wilson), *in camera*;[41] customer mix measured the percentage of patients receiving Medicare or Medicaid assistance at each hospital, TR 2600 (Haas-Wilson), *in camera*; and teaching intensity measured the number of residents and interns per bed at each hospital, TR 2604 (Haas-Wilson), *in camera*. The results indicated that changes in patient mix, customer mix, and teaching intensity differed significantly between ENH and the control

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[39] Again, Haas-Wilson excluded hospitals with fewer than 100 admissions during both the pre- and post-merger period. CX 6279 at 10-11, *in camera*.

[40] These numbers were calculated from CX 6279 at 11, *in camera*, by subtracting from the figures in the "ENH" column either the "Chicago PMSA Control Hospitals," the "Non-Merging Chicago Control Hospitals," or the "Teaching Chicago Control Hospitals" column. The average net price *per day* increases for the three categories of patients were: all patients (34%, across all three control groups); commercial and self-pay patients (26% to 29%, depending on the control group); and commercial, self-pay, self-administered, and HMO patients (27% to 29%, depending on the control group). CX 6279 at 10, *in camera*. These numbers were calculated from CX 6279 at 10, *in camera*, by subtracting from the "ENH" column either the "Chicago PMSA Control Hospitals," the "Non-Merging Chicago Control

hospitals and, therefore, that these factors could explain some of ENH's post-merger price increases. TR 2607 (Haas-Wilson), *in camera*. Depending on the data set, the payor, the plan, and the control group, the percentage changes in case mix complexity at ENH differed substantially from those at the control group hospitals (from 9% below to 45% above).[42] CX 6279 at 13, *in camera*. The average net price increases in the percent of patients on Medicaid and Medicare were greater at ENH (45% and 12%, respectively) than they were at hospitals in the control groups (30% to 34% and 7% to 8%, respectively, depending on the control group). *Id.* at 15, *in camera*. The increase in teaching intensity was greater at ENH (32%) than it was at hospitals in the teaching hospital control group (8%). *Id.* at 16, *in camera*.

Haas-Wilson's finding that patient mix, customer mix, and teaching intensity differed between ENH and the control groups potentially invalidated her earlier use of the DID methodology to reject shared cost, demand, and regulation changes as explanations for the post-merger price increases. This is because her rejection of shared cost, demand, and regulation changes as explanations for the post-merger price increases was premised on the ENH hospitals and the control groups having equivalent patient mix, customer mix, and teaching intensity.[43] Nonetheless, as we now explain, this flaw does not invalidate Haas-Wilson's ultimate conclusion because her linear regression results, which did control for patient mix, customer mix, and teaching intensity, also implicitly eliminated shared cost, demand, and regulation changes as sufficient explanations for the post-merger price increases.

c. Linear Regression Analysis

Haas-Wilson's third step was to apply a linear regression model to test whether changes in patient mix, customer mix, and teaching intensity explained ENH's post-merger increase in net prices. TR 2615 (Haas-Wilson), *in camera*; DX 7056 at 1. Regression is a statistical technique used to characterize the relationship between a variable of interest, such as price, and several other variables, such as changes inNoSee; DX 7056 at 1. Tc - DID go PMSA cost, d9r vanow e5(r)-1(T1

could explain the price increases. In Haas-Wilson's regression model, net prices at ENH and the control hospitals were the dependent variables, and patient mix, customer mix, and teaching intensity were included in the independent variables. TR 2619 (Haas-Wilson), *in camera*. Using both the payor data and the Illinois data, Haas-Wilson regressed ENH's and the control groups' *per case* net prices on patient mix, customer mix, teaching intensity, and a dummy variable for the merger.[44] DX 7056 at 1; TR 2619-22 (Haas-Wilson), *in camera*. Haas-Wilson used the same three control groups of hospitals as with her DID analysis. TR 2620 (Haas-Wilson), *in camera*

DX 7060, *in camera*; DX 7061 *in camera*. We do not discuss this portion of Haas-Wilson's testimony because, as discussed below, the Commission has determined, based on its own review of the record (including many of the portions that Haas-Wilson relied upon), that neither possibility is a plausible explanation for ENH's higher-than-predicted merger-coincident price increases.

2. Baker's Empirical Analyses

Baker used the same basic methodology as Haas-Wilson to analyze the changes in ENH's prices to MCOs against the price changes of various control groups. Significantly, like Haas-Wilson, Baker found substantial higher-than-predicted merger-coincident price increases for ENH.

Baker, however, differed from Haas-Wilson in how he organized the data and in limiting his analysis to the payor data. First, Baker calculated prices only on a *per case* basis, while Haas-Wilson used both *per case* and *per day* prices in the majority of her analysis. TR 4628-29 (Baker), *in camera*. Second, consistent with respondent's position that the relevant product market includes inpatient and hospital-based outpatient services, Baker used both inpatient and outpatient cases (together) to measure price, although, for comparison with Haas-Wilson, Baker also performed his analysis using only inpatient cases.[46] TR 4620 (Baker), *in camera*; DX 7068 at 10, ¶25, *in camera*.

Third, Baker and Noether defined the post-merger period as the time after January 1, 2000, while Haas-Wilson used each payor's contract renegotiation date as the start of the post-merger period. TR 4635 (Baker), *in camera*; DX 7068 at 9, ¶23, *in camera*. Baker testified that using the date of the merger as the starting point of the post-merger period was a more accurate method of calculating the post-merger price increases. TR 4636-67 (Baker), *in camera*.

Fourth, Baker and Noether analyzed the data at the payor level for Aetna, BCBS, Humana, and United, but testified only on the results averaged across all payors. TR 4621, 4631-32 (Baker), *in camera*; DX 7068 at 8, ¶20, *in camera*; *id.* at 10, ¶24, *in camera*. Baker testified that he preferred using the overall price changes because he believed that it was more reliable, and also more appropria

Baker found that inpatient average net prices increased across all four payors after the merger using both the "ENH" and "ENH constructed" measures. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. Using the "ENH constructed" measure, Baker calculated the following average net price increases by ENH: Aetna (35%); BCBS (13%); Humana (83%); and United (138%). RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. Overall, the four payors experienced an average 42% inpatient price increase from ENH. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. Using the "ENH" measure, Baker calculated the following average net price increases by ENH: Aetna (25%); BCBS (2%); Humana (60%); and United (140%). RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. Overall, the four payors experienced an average 29% inpatient net price increase from ENH. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*.[47] Baker did not report levels of statistical significance for any of these calculations. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*.

b. Difference-in-Differences Analysis

Next, to control for factors that could change prices across all hospitals, Baker differenced ENH's price change with a control group's price change. Baker used a control group of eighteen hospitals that Noether selected. DX 7126 at 71, ¶ 174; TR 4637-38 (Baker), *in camera*; DX 8039, *in camera*. Noether did not explain with precision how she chose the eighteen hospitals, and her list does not match any set of hospitals in any particular document or any particular industry standard. TR 6149-51 (Noether). Again, using the "ENH constructed" measure, after differencing, Baker found that ENH's average net prices increased above those of the control group at Aetna by 26%, at Humana by 58%, and at United by 103%. Baker found that BCBS' prices did not increase. RX 2040 at 1, *in camera*; DX 7068 at 43, *in camera*. The combined average net price increase by ENH for all four payors was 25% above that of the control group.[48]

Using the "ENH" measure, Baker found average net price increases to three of the payors and a price decrease for BCBS. After differencing, Baker found that ENH's average net prices increased above that of the control group at Aetna by 16%, at Humana by 35%, and at United by 105%. Baker found that BCBS' average net prices decreased by 11%. RX 2040 at 1, *in camera*;

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[47] Baker also performed these calculations omitting obstetrics cases because of the "missing babies" problem. The corresponding *per case* average net price increases for "ENH constructed" (*i.e.*, Evanston, Glenbrook, and Highland Park Hospitals) were: Aetna (34%); BCBS (5%); Humana (84%); and United (111%), with an average net price increase across all four payors of 37%. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*. The corresponding *per case* average net price increases for "ENH" (only Evanston and Glenbrook) were: Aetna (31%); BCBS (3%); Humana (82%); and United (124%), with an average across all four payors of 35%. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*.

[48] Again, Baker performed these calculations omitting obstetrics cases. The corresponding *per case* average net price increases above the control group were: Aetna (26%); Humana (61%); United (83%); and a decrease of 3% for BCBS. The corresponding average net price increase across all four payors of 23% above that of the control group. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*.

market power caused by the merger. The economic testimony is marked by both agreement and disagreement over the correct way to estimate the

suggests that the payor data, as well as the Illinois data, were sufficiently reliable to instill confidence in Haas-Wilson's and Baker's results.

before the merger. We also note at the outset of our analysis that respondent's learning-about-demand argument does not apply to the merger-coincident price increases at Highland Park, which respondent appears largely to attribute to post-merger improvements in quality at the hospital. RB 51.

1. ENH Officials' Testimony

Evanston's Chief Operating Officer, Jeffrey Hillebrand, testified that from 1990 to 1998 Evanston's strategy was to have a relationship with every health insurer, and that this goal affected Evanston's negotiating style. TR 1835 (Hillebrand). He also testified that during the 1990s there were fewer financial pressures on hospitals; that Evanston had a target rate of return; and that "as long as we were able to achieve that, management and our board felt that whatever pricing we were getting was sufficient." TR 1836 (Hillebrand). According to Hillebrand, Evanston did not renegotiate a number of its contracts for approximately five years before the merger, TR 1850 (Hillebrand), which purportedly resulted in Evanston's "short-changing itself for years in negotiations with MCOs." RRB 49.

Respondent assigns some of the responsibility for its all-inclusive strategy with MCOs to Jack Sirabian, who was Evanston's principal negotiator from 1990 to 2000 and in that position reported to Hillebrand. TR 5697-98, 5701 (Sirabian). Sirabian and Kim Ogden of Bain testified that Sirabian wanted to have Evanston included in every network, lacked negotiation experience and support staff, and "was not comfortable taking a tough stand." TR 5697-98 (Sirabian); RX 2047 at 34 (Ogden).

Respondent asserts that it hired Bain in 1999 to conduct an analysis of its contracts and assist it with the merger. Bain's analysis purportedly demonstrated that Highland Park had higher rates than Evanston for the majority of its MCO contracts. Hillebrand testified that he was surprised and "embarrassed" to learn this fact. TR 1853 (Hillebrand). Neaman similarly testified that he was "shocked" by the purported price disparity between Evanston's and Highland Park's prices. TR 1344-45 (Neaman). Based on Bain's conclusions, ENH decided that it would use more aggressive negotiating tactics with MCOs, including risking being dropped from the MCOs' networks. TR 1854-55 (Hillebrand); TR 1218 (Neaman).

The testimony by Hillebrand, Sirabian, and Neaman is not persuasive. First, respondent stated in the proposed findings of fact submitted to the ALJ that during the 1990s Hillebrand participated in negotiations with larger MCOs, such as BCBS, which caused Sirabian to pay "closer attention" to these pre-merger contract negotiations and resulted in contracts with higher prices. RFF ¶¶ 604, 757; RB 52; *see also* TR 1700, 1836 (Hillebrand). As a result, ENH did not need to impose a "relative post-merger price increase" on BCBS. RB 52. Thus, the import of respondent's argument is that Evanston allowed Sirabian to forgo millions of dollars for the better part of a decade for those contracts that he negotiated alone, but charged market rates when Hillebrand (to whom Sirabian reported) participated in the negotiations. This argument and the supporting testimony lack credibility.[53]

[53] Respondent also claims that it needed to raise its prices in 2000 because it faced new financial pressures, including that the Balanced Budget Act reduced its revenues and MCOs began to exert

Second, Neaman testified that Hillebrand was an effective negotiator, with a good understanding of the marketplace and Evanston's relationships with health plans. TR 1220 (Neaman). Neaman also testified that he never criticized Hillebrand about Evanston's pre-merger contracts with health plans. TR 1220 (Neaman). While not dispositive, such testimony contradicts respondent's argument.

Third, for those contracts that Sirabian allowed to remain in effect for a number of years without renegotiation, the record indicates that it is equally plausible that the prevailing competitive environment would not have allowed Evanston to raise prices. Spaeth testified that, during the 1990s, Highland Park had "multi-year, no change contracts" and that before the merger he did not see an opportunity for Highland Park to raise prices. TR 2182, 2172-73 (Spaeth). As the ALJ found, "[t]he fact that Highland Park executives were concerned about contract terminations pre[-]merger [if they raised rates] is illustrative of the competitive environment that existed before 2000 and stands in contrast to the [post-merger] actions of ENH officials who, given their competitive situation, were not constrained by such prospects in their renegotiations with managed care representatives . . . ." ID 166.

Finally, respondent's learning-about-demand argument is difficult to square with respondent's position that Evanston was and is a state-of-the-art hospital, with superior management, that consistently provided high-quality services. RB 7. Respondent maintains that, despite these many attributes, Evanston could not set prices at market levels for some MCOs. In contrast, respondent maintains that Highland Park failed to address quality issues properly, provided poor services to the point that it was threatening patient safety, was in severe financial distress, and would have deteriorated without the merger. RB 8-9, 63-67, 69. Despite these alleged shortcomings, respondent's learning-about-demand argument rests on the premise that Highland Park officials were proficient at setting the hospital's profit-maximizing price. This logical discrepancy is not determinative, but when viewed in conjunction with the totality of the other evidence, supports rejecting respondent's learning-about-demand position.[54]

2. Baker's Learning-About-Demand Analysis

Baker sought to show through econometrics that at least some portion of ENH's post-merger price increases was due to ENH's learning that it had under-priced the market. Baker's work, however, partially undermines respondent's position. To test respondent's learning-about-demand position, Baker performed a regression analysis that was conceptually similar to the regression model that he used to measure the post-merger net price changes. TR 4665-67 (Baker), *in camera*; DX 7068 at 29-30, ¶¶ 60-61, *in camera*. The primary difference was that, in his first regression, Baker used an eighteen-hospital control group; his learning-about-demand regression used a control group that consisted of only six hospitals selected by Noether, which Noether termed an "academic" group. DX 7068 at 27-30, ¶¶ 58-61, *in camera*; RX 2040 at 4, *in camera*; DX 7068 at 46, *in camera*. Baker's rationale was that the information on market demand that ENH had obtained from the merger would enable it to price up to but not above the average prices charged by this group of hospitals, which Noether claimed were peers to Evanston. TR 5993-6000 (Noether); DX 7068 at 27, ¶ 56-57, *in camera*.

Baker estimated the average difference in the net prices between Evanston and each of the six academic hospitals for each year, after controlling for variation in the mix of patients across hospitals. DX 7068 at 28-29, ¶ 60, *in camera*. Baker then calculated the weighted average across the six hospitals of these predicted average differences. Baker found that the average net price (combining the four MCOs in his sample: United, Humana, BCBS, and Aetna) at ENH did not exceed the predicted level as compared to the control group. TR 4809-11 (Baker), *in camera*; RX 2040 at 4, *in camera*; DX 7068 at 30-31, 46, *in camera*. In contrast to all of his prior results, Baker also reported the statistical significance of his results.[55]

Baker's regressions with the six-hospital control group are not reliable, however, because, as the ALJ found, and we agree, the narrow academic control group is highly flawed. The academic control group consisted of Advocate Lutheran General, Advocate Northside, Northwestern Memorial, Rush-Presbyterian-St. Luke, Loyola, and the University of Chicago. TR 6000 (Noether). Noether selected her academic control group based on three criteria: teaching intensity (rate of residents to beds); number of staffed beds; and breadth of services (number of DRGs). IDF ¶ 808; TR 5993-95 (Noether). Noether included in her academic control group only hospitals with at least 370 DRGs, more than .25 residents per bed, and more than 300 staffed beds. IDF ¶ 808; TR 5993-95.

Noether's criteria appear to be somewhat arbitrary and designed to exclude a number of hospitals that likely are Evanston's peers. The teaching intensity classification is consistent with the Medicare Payment Advisory Commission's ("MedPac") provision that defines a "major teaching hospital" as a hospital with "at least .25 residents per bed," but the DRG and number of bed criteria are not based on any specific established industry metric. IDF ¶¶ 809, 814, 817. The control group also included four of the most expensive hospitals in the city. Northwestern Memorial, University of Chicago, Rush-Presbyterian-St. Luke, and Loyola each had higher average reimbursement *per case* than did Evanston. RX 1912 at 147, 150, *in camera*.

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[55] The Commission could not determine whether Baker's learning-about-demand regression analysis included obstetrics cases.

Conversely, the control group excluded less expensive hospitals that could handle most of the cases handled by Evanston. IDF ¶ 819; RX 1912 at 60; *id.* at 147-52, *in camera*.

Additionally, four hospitals in the control group had a higher breadth of services (*i.e.*, number of DRGs) than did Evanston. IDF ¶¶ 821, 824-25; RX 1912 at 44, *in camera*. Also, four of the hospitals performed significant numbers of solid organ transplants, and two of them treated a significant number of extensive burn injuries. TR 2702 (Haas-Wilson), *in camera*; DX 7058, *in camera*. Evanston did not provide either service. TR 1378 (Neaman). Four of the six hospitals in the control group had a substantially greater number of residents per bed (*i.e.*, more teaching intensity) than did Evanston. RX 1912 at 60. At the time, Evanston had 0.3386 residents per bed, while Loyola University had 0.6060 residents per bed, Northwestern Memorial had 0.5670 residents per bed, Rush-Presbyterian-St. Luke's had .7606 residents per bed, and University of Chicago had 0.7938 residents per bed. IDF ¶ 827; RX 1912 at 60.[56]

Further casting doubt on Noether's criteria for selecting the narrow control group is that her standards resulted in the exclusion of two hospitals – Louis A. Weiss Hospital and St. Francis Hospital – that met the MedPac criteria for a major teaching hospital but that, according to Noether's calculations, charged average prices below those charged by ENH from 2000 to 2003. TR 5921-22, 6170-71 (Noether); RX 1912 at 60; *id.* at 148, 151, *in camera*. Similarly, Noether excluded a number of hospitals that had a higher case mix index than did ENH, which she calculated charged average prices below those charged by ENH from 2001 to 2003. TR 6168, 6170-72 (Noether); RX 1912 at 25; RX 1912 at 148-49, 151-52, *in camera*. These hospitals t Ccad .7606 reside

2040 at 4, *in camera*; DX 7068 at 46, *in camera*.[58] The results for United are particularly significant because respondent repeatedly cites United as its primary example of a contract under which ENH's pre-merger prices were substantially below market. *E.g.*, RB 52.

Baker's findings for Aetna and BCBS were more favorable to ENH. He found that the prices ENH charged to these two payors were not statistically higher than prices at the academic hospitals. These results are not informative, however, because of Baker's use of the flawed narrow control group.

3. Comparisons of Evanston's and Highland Park's Prices

Respondent also tried to support its learning-about-demand position by introducing evidence that purportedly showed that Evanston charged lower prices than those charged by Highland Park for a number of MCOs before the merger. We find that this evidence does not support respondent's argument.

First, it is not entirely clea

results are flawed because, as she argued (and we agree), price *per case* is likely a more meaningful measure of price than price *per day*. DX 7126-104. Also, Noether's table does not report statistical significance. RX 1912 at 34, *in camera*.

In addition, Haas-Wilson's calculations showed that pre-merger prices were higher at Evanston than they were at Highland Park. TR 2646 (Haas-Wilson), *in camera*; DX 7047 at 1, *in camera*. Baker implicitly arrived at the same conclusion as Haas-Wilson. TR 4744-47 (Baker), *in camera*. As the ALJ found, Baker calculated the average percentage price increase following the merger for four health plans – Aetna, BCBS, Humana, and United – using two methodologies: (1) comparing Evanston's and Glenbrook's pre-merger prices to the ENH post-merger prices; and (2) comparing Evanston's, Glenbrook's, and Highland Park's combined pre-merger prices (Baker's "constructed prices") to the ENH post-merger prices. IDF ¶ 795 (citing TR 4633 (Baker), *in camera*). The constructed price calculation (which includes the pre-merger prices at Highland Park) showed a larger average post-merger price increase than his calculation for the price increase (both with and without obstetrics) for just Evanston and Glenbrook. RX 2040 at 1-2, *in camera*; DX 7068 at 43-44, *in camera*. It follows that because the post-merger price increases were larger when Baker included Highland Park's prices in his calculations, Highland Park's average prices were lower than the average prices at Evanston and Glenbrook before the merger. TR 4744-47 (Baker), *in camera*. And finally, ENH's Sirabian testified that no more than one-third of Highland Park's contracts had higher rates than those contained in Evanston's contracts. TR 5717 (Sirabian).

Respondent attempts to dismiss Haas-Wilson's and Baker's calculations on the ground that they were based on econometric analyses that controlled for various factors, such as case mix, rather than the nominal contract rates. RB 50. Respondent appears to argue that even if Evanston's prices, when adjusted for these relevant factors, were higher than those charged by Highland Park, ENH and some MCOs believed that they were lower based on a review of the nominal "*contract rates*," RB 50 (emphasis added), and therefore that respondent's merger-coincident price increases could not have been due to market power. This reasoning is unconvincing. Even if we assume that Evanston's unadjusted prices were below Highland Park's, ultimately, business decisions are made based on actual rather than nominal prices. For example, we would not expect job seekers to decide between various employment opportunities using only nominal (*i.e.*, "unadjusted") wages; rather, we would expect them to consider the quality of the work, training opportunities, potential bonuses, the number of vacation days, and other factors along with wages. Therefore, we find that the appropriate way to compare prices is by controlling for the appropriate variables, which is the approach used by Haas-Wilson and Baker.

Respondent also argued that Bain concluded that Highland Park had higher prices for certain contracts. *E.g.*, RX 652; RX 684; RX 1995, *in camera*. In several of these documents, Bain compared what it described as the "non-adjusted" contract terms of Evanston's and

"adjusted" basis do not identify with precision the methodology that Bain used to make this determination. RX 1995 at 8, *in camera*

N. Post-Merger Improvements and Cost Reductions

1. Merger-Specificity

As stated above, in addition to believing that the merger would and did allow ENH to raise prices to MCOs, Evanston's senior officials viewed the merger as an opportunity to achieve cost reductions and economies of scale in various clinical and administrative areas,[59] and to provide an additional teaching site for Evanston and Northwestern University Medical School. CX 359 at 22. Highland Park officials saw the merger as an opportunity for an infusion of capital at a time when the hospital was experiencing reduced income. TR 1327-28 (Neaman); TR 2266 (Spaeth). Those officials also viewed Evanston as an experienced partner that could help Highland Park implement new programs and enhance existing services – in particular, cardiac surgery and oncology. TR 2273-74 (Spaeth); CX 6305 at 7. At Highland Park's insistence, the merging parties' letter of intent included specific commitments to implement these programs. RX 567 at 10, 12-13; CX 6305 at 9-10.

Shortly after the merger, ENH established a cardiac surgery program at Highland Park and an interventional cardiology program that supplemented Highland Park's existing diagnostic cardiology program. IDF ¶¶ 952, 961. In mid-2000, ENH expanded Highland Park's existing oncology services by opening the Kellogg Cancer Care Center at Highland Park, which provided a multi-disciplinary approach to cancer care and brought together an array of oncology services in a single location. IDF ¶ 921. ENH also established a residency training program in family medicine at Highland Park, and obtained academic appointments at Northwestern University Medical School for approximately sixty Highland Park physicians, enabling them to participate in teaching activities (principally at Evanston). IDF ¶¶ 988, 990; TR 3124-25 (Romano), *in camera*.

In addition, ENH improved Highland Park's physical facilities – *e.g.*, it constructed a new ambulatory care center, renovated the emergency department, and expanded the on-site laboratory – and upgraded some equipment. IDF ¶¶ 911-20, 929, 935-36, 941-43, 962, 968. ENH also replaced all three hospitals' existing electronic medical records systems with an integrated, entirely paperless computerized system called EPIC. IDF 976-81.[60] All told, ENH spent approximately $120 million to make these changes at Highland Park. TR 1250, 1350 (Neary).

Complaint counsel and respondent each presented the testimony of a healthcare quality expert, who identified three widely recognized measures of quality: structure (*e.g.*, facilities, staffing), process (*e.g.*, surgical procedures, medication regimens), and outcome (*e.g.*, mortality). TR 2986-87 (Romano); TR 5143-45 (Chassin). ENH's evidence focused principally on structural changes (as well as some process changes) made by ENH, which its expert, Dr. Mark

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[59] Highland Park's transaction counsel also advised Highland Park's board that, although the merger might produce cost savings, "such savings are not the highest priority of the transaction" and "[t]he financial condition of both parties is such that neither require [sic] a financial reason for such affiliation." CX 1923 at 2; TR 5840 (Kaufman); IDF ¶¶ 1039-40.

[60] EPIC is a software system for managing patient records for both hospitals and physicians. It includes a physician order entry system and clinical decision support systems. IDF ¶¶ 978-79.

Chassin, testified constituted quality improvements because they "increase the likelihood of desired health outcomes." TR 5141 (Chassin). Complaint counsel's expert, Dr. Patrick Romano, focused principally on outcome measures. For the most part, ENH did not endeavor to show that the claimed improvements have actually improved health care outcomes at Highland Park.

The ALJ found that ENH did not present any quantifiable evidence that improvements at Highland Park enhanced competition, ID 177, and that ENH failed to show that quality improved across the combined ENH system (not just at Highland Park) and relative to other hospitals. ID 179-81. The ALJ found that Highland Park could have achieved the vast majority of the claimed improvements without the merger. ID 182-92.

Our findings of fact differ in some respects from those of the ALJ, but we agree with the ALJ that Highland Park could have made the large majority of the quality improvements asserted by ENH without the merger. The record shows, and we find, that Highland Park was considered to be an excellent community hospital before the merger. IDF ¶¶ 850-52; TR 2095-98 (Spaeth); TR 4382 (Dragon); TR 5087-88 (Ankin). Highland Park had plans in place to improve its quality and expand services further without a merger, including

services; to improve physician collaboration; to improve workflow in all departments with particular focuses on radiology, cardiology, laboratory, and physical medicine; and to utilize technology to expand access to information to physician offices. CX 1868 at 13, 16, 18;

As the ALJ found, quality of medical care is not easily defined or measured, ID 179, and this difficulty is reflected in the differing approaches of complaint counsel's and respondent's health care experts. The record is ambiguous as to whether Highland Park's services improved more quickly than services at other hospitals in the Chicago area. If they did, however, they likely did so by only a modest amount. The Joint Commission on Accreditation of Healthcare

post hoc attempt to justify its post-merger price increases found to exist even by its own expert." ID 179 (emphasis in original).

V. CONCLUSIONS OF LAW

A. Section 7 of the Clayton Act

Section 7 of the Clayton Act prohibits the acquisition of assets "in any line of commerce or in any activity affecting commerce in any section of the country, [where] the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly." 15 U.S.C. § 18. Congress used the phrase "'may be substantially to lessen competition' to indicate that its concern was with probabilities, not certainties." *FTC v. H.J. Heinz Co.*, 246 F.3dAct

FTC v. Swedish Match, 131 F. Supp. 2d 151, 157 (D.D.C. 2000) (citing *du Pont*, 351 U.S. at 393).

The Merger Guidelines use a related type of market definition test. Under the Guidelines, the product market is defined by asking whether a hypothetical monopolist of the proposed product market could impose a small but significant and nontransitory increase in price ("SSNIP") and not lose an amount of its sales to alternative products that would make the price increase unprofitable. Merger Guidelines § 1.11. If so, then the proposed market constitutes a relevant product market. *Id.* The agencies often use a SSNIP amount equal to a 5% price increase, although this varies depending on the nature of the market. *Id.*; *see Staples*, 970 F. Supp. at 1076 n.8. The Merger Guidelines provide that "what constitutes a 'small but significant and nontransitory' increase in price will depend on the nature of the industry, and the Agency at times may use a price increase that is larger or smaller than five percent." Merger Guidelines § 1.11.

Courts are not required to follow the Merger Guidelines' approach, but many modern courts have applied either the hypothetical monopolist test or some related test that defines markets by determining the set of products over which a dominant or monopolist firm could exercise market power. *See, e.g.*, *United States v. Microsoft Corp.*, 253 F.3d 34, 81 (D.C. Cir. 2001) ("To establish a dangerous probability of success, plaintiffs must as a threshold matter show that the browser market can be monopolized, *i.e.*, that a hypothetical monopolist in that market could enjoy market power."); *Coastal Fuels, Inc. v. Caribbean Petroleum Corp.*, 79 F.3d 182, 198 (1st Cir. 1996) ("The touchstone of market definition is whether a hypothetical monopolist could raise prices."); *Sungard*, 172 F. Supp. 2d at 182, 186-92 (citing the Guidelines' hypothetical monopolist test approvingly); *Swedish Match*, 131 F. Supp. 2d at 160-61 & n.8 (paraphrasing Merger Guidelines and informally applying the hypothetical monopolist test). The authors of the leading treatise also generally endorse the hypothetical monopolist approach. *See*

In short, we conclude that the evidence in the record establishes that the relevant product market is acute inpatient hospital services. We also find that even if we included hospital-based outpatient services in the relevant product market, as respondent proposes, it would not alter the outcome of this case. As we found above, both sides' economists determined that ENH's post-merger price increases for inpatient services were not offset by reductions (or smaller increases) in ENH's prices for outpatient services. Baker actually calculated larger higher-than-predicted average merger-coincident net price increases for inpatient and hospital-based outpatient services combined (11% or 12%), than he did for inpatient services alone (9% or 10%). DX 7068 at 21, *in camera*.

2. Relevant Geographic Market

The geographic market is "the 'area of effective competition . . . in which the seller operates, and to which the purchaser can practicably turn for supplies.'" *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 359 (1963) (quoting *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 327 (1961)). The Merger Guidelines use the same hypothetical-monopolist approach to define the geographic market as they do for product market definition, stating that the relevant geographic market is a region in which a hypothetical monopolist could "profitably impose at least a 'small but significant and nontransitory' increase in price, holding constant the terms of sale for all products produced elsewhere." Merger Guidelines § 1.21.

Complaint counsel asserts that the geographic market is the "geographic triangle formed by the three ENH hospitals." CB 38. Respondent does not specify a precise geographic market but maintains that it is much larger.[67] Whereas the north-south axis of complaint counsel's market is approximately 13.7 miles, respondent's market has a north-south axis of at least 36 miles, and includes hospitals such as Condell (approximately 13 miles north of Highland Park and 25 miles north of Evanston) and Northwestern Memorial (approximately 13 miles south of Evanston and 26 miles from Highland Park). RB 28-30. The record is less clear about the respective lengths of the east-west axes of complaint counsel's and respondent's geographic markets, although it appears from a map in respondent's brief that respondent's axis is at least approximately one-third longer. *See* RB 29.

The ALJ defined the geographic market as the region covered by the three ENH hospitals and four other hospitals – Lake Forest, Advocate Lutheran General, Rush North Shore, and St.

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broader "hospital services" product market, as respondent suggests. Such segmentation, however, is not practical here; nor is it necessary because, as the ALJ implicitly found, there plainly is a substantial volume of inpatient services for which neither hospital-based nor non-hospital-based outpatient services are substitutes. IDF ¶¶ 206, 207, 209-11.

[67] Respondent, of course, does not have the burden of proving the relevant product or geographic markets. Respondent cites a number of hospital merger cases in which the courts have defined geographic markets to include a county or several counties. RB 27-28. Precedent is a relevant consideration in defining markets, and we have partially relied on precedent to define the relevant product market. However, market definition fundamentally is a question of fact. This is particularly the case for geographic market definition, where population density, traffic patterns, and socio-economic factors vary substantially from region to region.

Francis. The ALJ found that "it is highly probable *that the four non-ENH hospitals in the geographic market would have the ability to constrain prices at ENH*, either now or in the future, and could be utilized by managed care organizations to create alternate hospital networks." ID 144 (emphasis added). To the extent that the ALJ held that MCOs could defeat a post-merger anticompetitive price increase by ENH by using one or more of these four other hospitals, we reject this holding. Indeed, such a holding is inconsistent with the ALJ's ultimate conclusion that the merger enabled ENH to exercise market power. Moreover, the ALJ's opinion reflects that he made his conclusions about the geographic market through rough inferences from the MCOs' testimony and documents, and by making very general findings about driving distances. ID 142-43. The ALJ's technique did not address the central issue in defining geographic markets – over what geographic region could a hypothetical monopolist impose a SSNIP.[68]

As discussed above, some of the MCO testimony partially supports complaint counsel's assertion that Evanston and Highland Park were close substitutes for some MCOs, and, therefore, that the triangle formed by the ENH hospitals might constitute a geographic market. Standing alone, however, the MCO testimony was not precise enough to allow the Commission to draw firm conclusions. Conversely, the testimony from respondent's executives was not sufficiently detailed to conclude that the relevant geographic market is much broader than the market alleged by complaint counsel.

Because it is not possible to define the geographic market solely through the testimony of the MCOs or respondent's executives, the question is whether the Commission can define the market based on the econometric evidence, which established that ENH could and did impose substantially higher-than-predicted merger-coincident price increases – 11% to 18% higher as computed by Haas-Wilson and 9% or 10% higher as computed by Baker. These price increases are larger than the 5% SSNIP that is often used under the Guidelines to define a market. *See* Merger Guidelines § 1.11.

Respondent describes the concept of defining a re3igha-2s e0015 tt.15 TsSNuse t-rket a -0.30004 T45002

3. Market Definition and Unilateral Effects

Modern merger analysis examines whether a merger is likely to lead to either or both coordinated and unilateral anticompetitive effects. Coordinated effects are reductions in competition caused by express or tacit interaction

already discussed with respect to defining the relevant product market also indicates that the merger would likely have an anti-competitive effect." *Id. at* 1082. The court further explained that "the evidence of the defendants' own current pricing practices, for example, shows that an office superstore chain facing no competition from other superstores has the ability *to profitably raise prices* for consumable office supplies above competitive levels," *id.* (emphasis added), which also is essentially the central issue examined in defining a relevant market. Logically, the court could have started its analysis by examining the transaction's likely competitive effects, determined that competition between the firms reduced prices by more than a SSNIP, and then concluded that office superstores are a relevant product market under the Merger Guidelines.[75]

This case is somewhat different from *Staples* because prices in the hospital market are determined through bilateral bargaining. In bargaining markets, prices and other conditions of sale are set through individual negotiations between a buyer and seller. *See Merger Guidelines Commentary* 34. Because of the nature of the price-setting mechanism, bargaining markets can result in different prices for the same product, depending on the alternatives available to the negotiating parties.

Contrary to respondent's position, RRB 11, bargaining markets are quite common and fully consistent with unilateral effects theory. *See Merger Guidelines Commentary* 34-36. And most economists who have recently studied the issue have concluded that bargaining models are appropriate for hospital markets because bilateral negotiations between MCOs and hospitals determine prices that often are unique to the particular negotiation.[76] The record in this case also demonstrates that hospital prices in the Chicago market are set through bilateral negotiations. CFF 245-83; TR 2470 (Haas-Wilson); TR 6189 (Noether); RB 51.

The principles of unilateral effects analysis apply to bargaining markets, but their application is somewhat different in a bargaining than in a single-price market. The unilateral exercise of market power in a single-price market harms all customers because they each pay a higher price for the good or service. In a bargaining market, a merger may allow the merged firm to exercise market power against a subset of customers who view the merging parties as

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[75] Practitioners have offered a similar assessment

their first and second choices, while the transaction will have no effect on other customers who do not view the merging firms as close alternatives or who have substantial "buy-side" market power. One or both of these possibilities likely explains, for example, why ENH appears to have been unable to exercise market power against BCBS after the merger.

The potential for a merger in a bargaining market to have disparate effects on different customers potentially creates sticky and unsettled

complaint counsel has correctly defined the geographic market as the triangle formed by the three ENH hospitals. We turn now to the competitive effects analysis to determine whether the merger did enable ENH to exercise market power.

C. Competitive Effects

Courts reviewing mergers pursuant to a Section 7 challenge assess the totality of the circumstances, weighing a variety of factors to determine the transaction's effects on competition. *See Baker Hughes*, 908 F.2d at 984. We start our analysis with the extensive econometric evidence submitted by complaint counsel and respondent, and then discuss the other evidence.

1. Econometric Evidence

groups, their calculations produced similar results. Haas-Wilson found, using the payor data, statistically-significantly higher-than-predicted post-merger ENH average net prices for four of the five payors: Aetna (21.3% to 32.5%); Humana (12.3% to 16.6%); United (75.3% to 93.2%); and Great West (25.1% to 39.5%). CX 6279 at 18-19, *in camera*; CX 6282 at 6, *in camera*; TR 2619-31 (Haas-Wilson), *in camera*. The percentage ranges reflect the use of different control groups and measures of resource intensity. For BCBS, Haas-Wilson found that ENH's actual post-merger average net prices were not statistically-significantly higher than her predicted post-merger average net ENH prices.

Haas-Wilson also found statistically-significantly higher-than-predicted increases in average net price using the Illinois data: all patients (13.2% to 17%); commercial and self-pay patients (11.1% to 17.0%); and commercial, self-pay, self-administered, and HMO patients (11.9% to 17.9%). CX 6279 at 30, *in camera*. Again, the percentage ranges reflect the use of different control groups and measures of resource intensity.

Finally, Baker's regressions found average net price increases of 9% or 10% for the four payors that he examined, relative to his eighteen-hospital control group, depending on whether obstetrics cases were included. RX 2040 at 3, *in camera*; DX 7068 at 45, *in camera*; DX 7068 at 19-20, ¶ 43, *in camera*. In addition to the factors ruled out by Haas-Wilson, Baker's model also controlled for patient age, gender, length of stay, type of health care plan, and hospital.[80]

Because Haas-Wilson and Baker ruled out the most likely competitively-benign explanations for a substantial portion of the merger-coincident price increases, the size of the increases and the congruence of their results strongly suggest that the price increases were due to an increase in market power caused by the merger. As we found above, and discuss further below, the record does not support respondent's position that Evanston's learning-about-demand or increased demand for Highland Park's services as a result of post-merger improvements explains these portions of the merger-coincident price increases.

2. Documents and MCO Testimony

The documentary evidence bolsters the conclusion that the higher-than-predicted merger-coincident price increases that both sides' economists found were caused by market power produced by the merger. As both the ALJ and we have found, the merging parties' documents reflect that a primary motivation of the senior officials in agreeing to merge the hospitals was to increase their bargaining leverage with MCOs in order to raise prices. The records of a January 4, 1999 meeting between Evanston's and Highland Park's board members and medical staff leaders state that Evanston representatives viewed the merger as an opportunity to not "'compete with self' in covered zip codes (*e.g.*, 60% to 70% market shares) such as Evanston, Glenview, Highland Park, and Deerfield," CX 1 at 3, all of which are in the triangle. Similarly, the minutes of an April 5, 1999 meeting record an Evanston representative's statement that the merger "would be an opportunity to join forces and grow together rather than compete with each other." CX 2 at 7. After the merger, ENH's Neaman tied the post-merger price increases in part back to

[80] As described *supra* 43-45, we find that Baker's regressions using the narrow six-hospital academic control group are unreliable because the control group was not reasonable.

greater negotiating leverage produced by the merger, telling the ENH board's finance committee that "the larger market share created by adding Highland Park Hospital has translated to better managed care contracts." CX 16 at 1.

The bottom-line conclusion of Highland Park's Spaeth was that the way to "push back on the managed care phenomenon and get rates back to where they ought to be [was to become] 'big enough,'" at which point "it would be real tough for any of the Fortune 40 companies in this area whose CEOs either use this place or that place to walk from Evanston, Highland Park, [and] Glenbrook." CX 4 at 2. It is difficult to imagine a clearer example of an executive using everyday language to explain how a merger will produce a firm that can exercise market power and whose services constitute a relevant antitrust market. Spaeth clearly thought that the merged firm would be able to raise prices because its customers would not be inclined to leave the ENH hospitals for other providers.

Respondent's efforts to downplay the significance of its documents are not persuasive. RB 59-62. The documents are probative because they reflect the merging parties' unvarnished contemporaneous analyses of the parties' market positions by their most senior officials. The statements are not simple bravado or unsubstantiated hyperbole from middle managers or sales representatives.

Respondent's argument that "intent" does not establish a Section 7 violation is correct, but beside the point. RB 59-60. The documents are probative not because they reflect the *desire* of Neaman and Spaeth to raise prices, but because they contain the informed analysis of experienced executives about when, why, and how the transaction would enable the merged hospitals to increase prices. Antitrust courts frequently rely on such evidence. *See, e.g.*, *Cardinal Health*, 12 F. Supp. 2d at 63-64 (relying on statements of senior executives that merger would reduce excess capacity and curb downward pricing pressures). We disagree with respondent that it does not "matter whether ENH executives later tied the merger to price increases." RB 59. Antitrust courts often rely on the conclusions of senior executives about the goals and effects of their actions. *See, e.g.*, *Microsoft*, 253 F.3d at 77 ("Microsoft's internal documents and deposition testimony confirm both the anticompetitive effect and intent of its actions."); *University Health*, 938 F.2d at 1220 n.27 (relying on evidence showing that the "appellees, *by their own admissions*, intend[ed] to eliminate competition through the proposed [hospital] acquisition") (emphasis in original).

Respondent's effort to expand upon the plain meaning of the documents also is not persuasive. Respondent argues, for example, that the merging parties' use of the phrase "leverage" in one document was shorthand for seeking to obtain fair market value for their services. RB 61. Shortly before the merger, Evanston CEO Neaman told his managers and his board that the merger would "*[i]ncrease* our leverage . . . with the managed care players." IDF ¶ 335; CX 1566 at 9 (emphasis added). This language reflects that Neaman thought that the merger would give Evanston additional bargaining power, not that the merger would allow Evanston to exercise bargaining leverage that it already possessed.

Finally, we reject respondent's implied position that reliance on the documents to infer anticompetitive effects is improper because the documents also indicate that the merging parties

thought that the transaction would produce efficiencies. RB 60. Although some of the documents state that the merging parties thought that the merger would be efficient, this does not diminish the fact that the documents also reflect the parties' expectation that the transaction would increase (and in their view that it had increased) the combined entity's ability to raise prices. The exercise of market power and the achievement of efficiencies are not mutually exclusive or inconsistent.[81]

SSNIP to a price that is below the theoretical competitive level, and thus wrongly concluded that ENH's ability profitably to impose such a price increase is due to market power.

Respondent cites no case to support its argument.[83] Instead, respondent refers the Commission to a treatise and several articles for the uncontroversial proposition that information about competitors' prices can be costly to acquire, and as a result firms may not always price at fully-informed levels at all times. RB 48 n.8; RRB 2. While obviously true, it does not follow that firms systematically and substantially undercharge the majority of their customers for years, which is what respondent is claiming Evanston did in the 1990s.

The lack of authority for respondent's novel learning-about-demand position is not surprising. The argument runs at least partially counter to the Merger Guidelines. As respondent correctly points out, the Merger Guidelines provide that market power "is the ability profitably to maintain prices above *competitive levels* for a significant period of time." Merger Guidelines § 0.1 (emphasis added). What respondent neglects to mention, however, is that the antitrust enforcement agencies typically apply the hypothetical monopolist test by "using prevailing prices of the products of the merging firms and possible substitutes for such products." *Id.* § 1.11. The Merger Guidelines do mention two circumstances in which the agencies will use a price different from the prevailing price – (1) when pre-merger circumstances suggest that coordinated interaction has occurred and (2) in cases in which it is possible to predict changes in the prevailing prices with reasonable reliability. *Id.* Here, both complaint counsel and respondent agree that coordination among competitors is not at issue. And the econometric analysis used by respondent's and complaint counsel's economists accounted for future changes in the prevailing price by factoring out the effects of the most likely competitively-benign factors that would cause prices to rise.

In addition, while we are not aware of any court that has specifically discussed the appropriate baseline price to use for the hypothetical monopolist test or to measure the exercise of market power, courts have looked to actual prices when defining markets. *Olin Corp. v. FTC*, 986 F.2d 1295, 1300-02 (9th Cir. 1993) (applying Merger Guidelines and using actual prices); *Sungard*, 172 F. Supp. 2d at 186-92 (analyzing customer testimony about actual prices regarding possibility of 5% to 10% price increase); *Staples*, 970 F. Supp. at 1076-77 (using actual prices); *New York v. Kraft Gen. Foods, Inc.*, 926 F. Supp. 321, 332-34, 359-61 (S.D.N.Y. 1995) (applying Merger Guidelines and referring back to previous analysis of relevant product market that contained references to actual customer prices); *FTC v. Owens-Illinois, Inc.*, 681 F. Supp. 27, 38-47 (D.D.C. 1988) (same), *vacated as moot*, 850 F.2d 694 (D.C. 1998); *see also CF Indus.*

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[83] Respondent asserts that the ALJ found that "Complaint Counsel failed to prove that ENH's post-merger prices exceeded competitive levels" and that this finding is dispositive in respondent's favor. RB 1 (citing ID 155). Respondent appears to be referring to the ALJ's statement that "Complaint Counsel did not attempt to compare ENH's price increases to a competitive level." ID 155. As the ALJ found, and as we agree, it is appropriate to determine that price increases reflect the exercise of market power by ruling out competitively-benign reasons for the price increases. On the same page to which respondent refers, the ALJ found that the "evidence therefore demonstrates that the relative price increases were the result of ENH's enhanced market power, achieved through elimination of a competitor as a consequence of the merger." *Id.*

v. Surface Transport Bd., 255 F.3d 816, 824 (D.C. Cir. 2001) ("[N]ormal assumption in examining assertions of market power is that the current price is at least the competitive price.").

Respondent's argument also raises a number of practical issues. It will almost always be true in markets where firms submit non-public bids or offers, such as hospital markets, that access by one firm to another firm's prices will provide insight into the demand structure that could allow a firm to price more closely to theoretical, long-run equilibrium levels on a sustained basis. It is also very likely, however, that systematic access by firms to their competitors' pricing can undermine firms' incentives to price aggressively and can facilitate collusion. Customers often do not share one provider's prices with another competing provider for this very reason. Presumably, Evanston did not know Highland Park's prices until Evanston received them during the due diligence process because MCOs thought that sharing the pricing data might reduce Evanston's incentives to compete aggressively for their business. Thus, caution is warranted before assigning procompetitive or competitively neutral effects to competitors' learning about each other's pricing strategies through mergers, and even more caution is needed when those mergers result in substantial price increases.

We need not resolve all of the doctrinal or practical challenges presented by respondent's learning-about-demand argument, however, because, as we have discussed in detail in our findings of fact, giving respondent all benefit of the doubt, we agree with the ALJ that the facts in the record do not support the argument. First, the testimony of the ENH executives that their business and negotiating strategy caused them not to obtain competitive prices in negotiations with MCOs during the 1990s lacks credibility. Second, Evanston's decision not to renegotiate certain contracts during the 1990s is equally consistent with Evanston's deciding that it could not obtain higher prices. Third, respondent's learning-about-demand argument hinges heavily on the purported gap between Evanston's pre-merger prices and those charged by Highland Park. As we found, while not unambiguous, the weight of the record evidence suggests that this gap did not exist.

In addition, Baker's regressions partially undermine the argument because even when he used an unrealistically narrow control group to test the learning-about-demand position, he found that ENH's post-merger prices to both Humana and United were statistically-significantly higher than the predicted levels.[84] TR 4739, 4743, 4682-85 (Baker), *in camera*; RX 2040 at 4, *in camera*; DX 7068 at 46, *in camera*. For Humana, the average net prices that ENH charged were 21% higher in 2002 than he predicted they would have been had the merger not occurred, and for United they were higher by 35% and 29% in 2002 and 2003, respectively.[85]

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[84] We find it somewhat surprising that Baker chose to report the statistical significance of these results. We presume that this is due to the fact that when he originally reported the results before correcting a mathematical error, he explicitly reported that the results were *not* statistically significant. DX 7067 at 45, *in camera.*

[85] The Commission computed the numbers through straightforward calculations of the percentage differences in rows 7 vs. 9 (Humana), and rows 10 vs. 12 (United), in RX 2040 at 4, *in camera*; and DX 7068 at 46 (Table 4), *in camera*.

As we also found above, respondent's learning-about-demand argument is difficult to square with a number of respondent's other positions. Respondent alleges that Evanston was and is a state-of-the art hospital, with superior management, that consistently provided high-quality services. RFF ¶ 3. Yet respondent also maintains that Evanston's most senior officials did not set prices at market levels for certain MCOs while simultaneously charging market rates for other MCOs, such as BCBS and Cigna. In contrast, respondent maintains that Highland Park provided such poor services that it was threatening patient safety, and that Highland Park was in severe financial distress, but at the same time was highly proficient at setting a profit-maximizing price. Again, this logical discrepancy is not determinative, but when viewed in conjunction with the totality of the other evidence, it supports our rejection of respondent's position that Evanston was systematically charging below-competitive rates before the merger.[86]

b. Lack of Decline in Output

Respondent also argues vigorously that complaint counsel's position that the merger allowed supracompetitive pricing is deficient because complaint counsel did not show a decline in output. RB 56; RRB 5, 23-25. We disagree with respondent's reasoning. First, strictly speaking, the issue is not whether respondent's output declined in nominal terms, but whether it declined from what it would have been but for the merger. Despite a merger-induced increase in ENH's market power, its nominal level of output still could have grown if demand for hospital services in the Chicago area increased.

More fundamentally, respondent incorrectly assumes that there is a relatively constant relationship in the hospital market between quantity and price. The record reflects that this is not the case. When MCOs negotiate with hospitals, for the most part they are faced with an all-or-nothing decision about whether to include the hospital in their network because, as Hillebrand testified, it is "very, very difficult" for an MCO to steer its PPO members to particular in-plan hospitals through differential pricing. IDF ¶ 169; TR 1760-63, 1766 (Hillebrand). Steering also is not an option for HMO plans because HMOs charge members uniform rates for all hospitals in their networks and preclude members from using other hospitals. Thus, generally, output declines only after the hospital exceeds the price at which the MCO is willing to enter into any contract with the hospital, at which point the output drops very substantially. In other words, there is a substantial range of prices, including prices at supracompetitive levels, over which an MCO will decide to include a hospital in its networks without a material change in the level of the hospital's services demanded by the MCO. The fact that complaint counsel did not prove a drop in market-wide output thus is not a deficiency in complaint counsel's case.

c. Quality Improvements at Highland Park

Respondent also argues that some portion of the merger-coincident price increases computed by both Haas-Wilson and Baker was caused by increased demand for Highland Park's

[86] As described *supra* at 41, the learning-about-demand argument does not apply to the post-merger price increases at Highland Park. Respondent's primary rebuttal to the econometrics as to Highland Park's price increases is that they reflect increased demand for Highland Park's services due to alleged post-merger improvements in the quality of the hospital. We address this argument, *infra*, at 70-72.

services due to post-merger improvements, rather than market power. RB 58-59, 62, 72. Complaint counsel responds that the ALJ found no evidence that the quality of care improved at ENH relative to other hospitals and, therefore, that Haas-Wilson's and Baker's estimates of the merger-coincident price increases do not require adjustment. CB 51.

Courts in merger cases usually consider efficiencies, including quality improvements, after the government has shown that the transaction is likely to reduce competition. *See Heinz*, 246 F.3d at 715, 720. Once the government has done so, the defendant can show that the loss of competition will not harm consumers by demonstrating that the transaction will produce "significant economies and that these economies ultimately would benefit competition and, hence, consumers." *University Health*, 938 F.2d at 1223; *see* Merger Guidelines § 4.0 ("To make the requisite determination, the Agency considers whether cognizable efficiencies likely would be sufficient to reverse the merger's potential to harm consumers in the relevant market, *e.g.*, by preventing price increases in that market."). The defendant has the burden of production to show that efficiencies offset any likely anticompetitive effects of the increase in market power produced by the merger. *See Heinz*, 246 F.3d at 715, 720 (finding that, to rebut presumptions of harm based on high concentration levels, defendants need to prove extraordinary efficiencies); *Staples*, 970 F. Supp. at 1088-89 (finding that defendants can use efficiency evidence to rebut presumption that merger will substantially lessen competition).

Because of the manner in which complaint counsel presented its case, however, here the issue of quality improvements at Highland Park is also relevant to determining whether the transaction increased the merging parties' market power. Complaint counsel sought to prove that the merger increased ENH's market power by showing that there were large post-merger price increases that are not attributable to the most plausible competitively-benign factors. Respondent correctly points out that one such plausible factor is that MCO demand for Highland Park's services might have increased if (for whatever reason) the quality of Highland Park's services improved after the merger. RB 51. More formally, it is possible that the MCO demand curve for ENH's services might have shifted outward after the merger relative to demand for other hospitals due to a relative increase in the quality of the services at Highland Park.

As we have found, however, the record does not support respondent's argument that improvements in quality at Highland Park caused the merger-coincident price increases at the hospital. First, because Evanston is more than twice the size of Highland Park, IDF ¶¶ 5, 22; ID 180, and generated roughly four times more revenue, CX 84 at 16, the large majority of commerce affected by ENH's substantial post-merger price increases was from Evanston's services, not those of Highland Park. Thus, even if respondent is correct that MCO demand for Highland Park's services increased after the merger due to quality improvements, such increased demand likely accounted for well short of half of the substantial higher-than-predicted merger-coincident price increases identified by both Haas-Wilson and Baker.

Second, the record is ambiguous as to whether quality at Highland Park improved relative to that of other hospitals after the merger. As we and the ALJ have found, however, even if Highland Park's quality improved relative to that of other hospitals, the record supports a finding that it did not increase demand for Highland Park's services. ID 179. ENH did not mention to MCOs that its price increases were due to improvements at Highland Park, IDF ¶¶ 840, 842; ID

services, both inpatient and outpatient, sort of the basics, such as obstetrics, all the way up to the more intensive services, such as cardio-angiogenesis." TR 1291 (Neaman). That Highland Park did not provide the tertiary services provided by Evanston does not negate the interchangeability of the two hospitals' primary and secondary services, such as basic obstetrics and general surgery. Respondent's implied argument to the contrary is at odds with common sense and its own documents, which reflect pre-merger competition between Evanston and Highland Park. In addition, the district court in *Long Island Jewish*

Antitrust analysis depends fundamentally on market facts. As the ALJ and we have found, the facts here – the merging parties' contemporaneous business assessment about the transaction's competitive effects, complaint counsel's and respondent's econometric analyses of ENH's post-merger prices, and portions of the merging parties' and the MCOs' testimony – demonstrate on the whole that it is very likely that the merger enabled the combined firm to exercise market power.

The section of the Merger Guidelines and the cases upon which respondent relies set forth conditions that typically are necessary for a transaction to enable the unilateral exercise of market power. These authorities do not mandate the use of a particular type of proof to establish those conditions. In particular, they do not require a court to enumerate the customers who view the merging parties as their first and second choices. As respondent acknowledges, the Merger Guidelines provide that a plaintiff may draw upon different types of evidence to establish unilateral effects. Merger Guidelines § 2.211 n.22.

One type of evidence that can be used to identify unilateral effects is "natural experiments," by which economists use natural variations in the economy or other social phenomena to perform an economic analysis. For example, in *Staples*, the FTC and the court relied, in part, on data that showed that "Staples and Office Depot both charge[d] higher prices where they face[d] no superstore competition [than when they did face competition from other superstores, which] demonstrate[d] that an office superstore can raise prices above competitive levels." *See Staples*, 970 F. Supp. at 1082; *see generally* Joseph Larson *et al*., *The Role of Economics and Economists in Antitrust Law*, 2004 COLUM. BUS. L. REV. 419, 453 (2004) (describing the use of natural experiments in merger analysis, including how "[c]omparisons of prices before and after competitor entry and exit are good candidates for natural experiments").

Here, complaint counsel relied on economic analysis of respondent's post-merger prices L.

during a two-year period. To the contrary, the econometric evidence, viewed in conjunction with the rest of the record, demonstrates that ENH was able to increase its prices by above-market rates for at least two years after the merger occurred.

The weight of the evidence shows that it is unlikely that new entry or expansion reduced ENH's market power after the two-year period either. No new hospitals have been built in the relevant geographic market since the merger, which suggests that entry or expansion has not alleviated the market power created by the transaction. IDF ¶ 1021. Further, because it takes at least two and one-half years to build a new hospital, it is unlikely that new entry will occur in the geographic market in the near future. IDF ¶ 1024.

ANTITRUST BULL. 1 (1978). The objective of the E-H test is to "measure[] the accuracy of a [potential] market delineation by determining the amount of either imports into or exports from a tentative market." *United States v. Country Lake Foods, Inc.*, 754 F. Supp. 669, 672 n.2 (D. Minn. 1990). The test's underlying assumption is that if an area has significant exports outside of the area or imports into the area, then that area is not a relevant geographic market because it is unlikely that a dominant firm within the area could exercise market power. *See id.*; TR 2372-73 (Elzinga).

At trial, Professor Elzinga testified that the E-H test was not an appropriate method to define geographic markets in the hospital sector because of two related problems, which he termed the "silent majority fallacy" and the "payor problem." TR 2369 (Elzinga). The silent majority fallacy is the false assumption that patients who travel to a distant hospital to obtain care significantly constrain the prices that the closer hospital charges to patients who will not

through “tiering” of co-payments, the price effect often is diluted because the co-payments often do not cover the difference between the total costs

with a high degree of caution because of the silent majority fallacy and payor problem and, at best, we should use it as one potentially very rough benchmark in the context of evaluating other types of evidence. A robust application of the hypothetical monopolist methodology is almost certain to produce a more reliable determination of the geographic market than is analysis of patient flow data.

In this case, even assuming that respondent's description of the patient flow information is correct, it provides no sound basis to alter our conclusion that the merger resulted in ENH's ability to exercise market power or that the triangle formed by the ENH hospitals is a relevant geographic market. For the reasons that Professor Elzinga explained, that Evanston and Highland Park may have had a greater patient flow overlap with certain other hospitals than they did with each other is not inconsistent with the conclusion that the combination of Evanston and Highland Park enabled the merged entity to exercise market power. To the contrary, here the record reflects that the merger did just that, and, consequently, that the relevant geographic market is narrower than the patient flow data might suggest.

4. Summary of Competitive Effects Analysis

In summary, we find that the merger enabled ENH to exercise market power, and that ENH used this market power to increase its average net prices to MCOs for acute inpatient hospital services by a substantial amount – at least the 9% or 10% calculated by Baker. No one type of evidence is dispos96 T6.0009 TKxI5(istt eveathat e em)9and

A. The "Weakened Company" Justification

ENH argues that, prior to the merger, Highland Park was on a financial "downward spiral" that limited its competitive viability in the future, and that the evidence of Highland Park's weakened financial condition rebuts or mitigates complaint counsel's showing regarding the merger's anticompetitive effects. ENH implicitly concedes that Highland Park's alleged financial difficulties fall short of the criteria required to establish a "failing firm" defense under the Merger Guidelines.[92] Instead, it relies on *United States v. General Dynamics Corp.*, 415 U.S. 486 (1974), and cases that have followed it, for the proposition that, even if the acquired firm is not "failing," evidence that it has "severely limited" resources is relevant to the assessment of whether the challenged transaction is likely to cause competitive harm. RB at 63.

In *General Dynamics*, the Supreme Court held that the market share statistics used by the government to challenge the merger of two coal companies were insufficient to sustain its case because, by failing to take into account the fact that the acquired firm's coal reserves were depleted or committed under long-term contracts, those statistics overestimated the acquired firm's ability to compete in the future. 415 U.S. at 500-04. Several courts have applied the *General Dynamics* rationale in ruling that evidence of the acquired firm's weakened financial condition, among other factors, may rebut the government's statistical showing of anticompetitive market concentration. *See Kaiser Aluminum & Chem. Corp. v. FTC*, 652 F.2d 1324, 1337-41 (7th Cir. 1981); *FTC v. National Tea Co.*, 603 F.2d 694, 698-700 (8th Cir. 1979); *FTC v. Arch Coal, Inc.*, 329 F. Supp. 2d 109, 153-54 (D.D.C. 1998). These courts have generally cautioned, however, that "[f]inancial weakness, while perhaps relevant in some cases, is probably the weakest ground of all for justifying a merger," and "certainly cannot be the primary justification" for permitting one. *Kaiser Aluminum*, 652 F.2d at 1339, 1341; *accord Arch Coal*, 329 F. Supp. 2d at 154.[93] Notably, "while a merger is a relatively 'permanent' arrangement having long-lasting competitive effects, financial difficulties not raising a

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[92] As the Merger Guidelines state:

> A merger is not likely to create or enhance market power or facilitate its exercise if the following circumstances are met: 1) the allegedly failing firm would be unable to meet its financial obligations in the near future; 2) it would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act; 3) it has made unsuccessful good-faith efforts to elicit reasonable alternative offers of acquisition of the assets of the failing firm that would both keep its tangible and intangible assets in the relevant market and pose a less severe danger to competition than does the proposed merger; and 4) absent the acquisition, the assets of the failing firm would exit the relevant market.

Merger Guidelines § 5.1 (footnotes omitted).

[93] As the Seventh Circuit observed in rejecting a weakened company defense, even the acquisition of a weak company can have anticompetitive consequences. *Kaiser Aluminum*, 652 F.2d at 1339 ("The acquisition of a financially weak company in effect hands over its customers to the financially strong, thereby deterring competition by preventing others from acquiring those customers, making entry into the market more difficult."); *id*. at 1341 ("History records and common sense indicates that the creation of monopoly and the loss of competition involve the acquisition of the small and the weak by the big and the strong.").

wealthy community, which contributed millions of dollars to capital campaigns to fund various hospital projects. For example, one such campaign in the early or mid-1990s raised more than $10 million for new surgical suites; another in 1998 raised money for Highland Park's dialysis center. TR 319-21 (Newton); TR 4954, 4959-60 (Styer).

Even as Highland Park contemplated merging with Evanston or another hospital, its management believed that continuing operations as an independent hospital was a viable alternative. IDF ¶¶ 1056-57, 1060-61. Highland Park's Chairman of the Board testified that, if the merger with Evanston had fallen through, "[t]here was no urgency to have an alternative immediately available" and that Highland Park had the "financial wherewithal to sustain [itself]" for at least ten more years. CX 6305 at 11 (Stearns); IDF ¶¶ 1058-59.

ENH argues that Highland Park's financial health was far worse than its reporting of positive operational income for all years except 1999 would suggest, because Highland Park was "subsidizing" its operations with investment income. RB 64.[95] However, financial statements prepared by Highland Park's transaction counsel show that, even excluding investment income, Highland Park had positive operating income in 1997 and 1998. RX 514 at 12. ENH's due diligence report also indicates that Highland Park had positive operating income (not including the pre-merger Highland Park Foundation, investment income, or financing and interest payments) in 1996, 1997, and 1998. RX 609 at EY000256-57. Furthermore, the fact that Highland Park had additional sources of funds available to it, including income from its investments and funds from Highland Park's pre-merger foundation, supports a finding that Highland Park had the financial wherewithal to make necessary capital investments and enhance its facilities and services – investments to which Highland Park was committed, even without a merger, to improve the hospital's future performance.

In sum, the record does not support a conclusion that Highland Park's pre-merger financial health precluded Highland Park from being a meaningful competitive force, or that there was no economically reasonable strategy that Highland Park could follow, either as a standalone entity or in partnership with another, to improve its prospects. Whatever challenges Highland Park faced prior to the merger, it had considerably greater financial resources and competitive options available to it than anything courts have found to satisfy a weakened company justification.

B. ENH's Quality Improvements Justification

ENH also argues that any adverse competitive effects resulting from the merger are outweighed by significant quality improvements at Highland Park that the merger has produced. ENH presented evidence that it has spent over $120 million post-merger to make improvements and expand services at Highland Park in 16 areas: (1) OB/GYN, (2) quality assurance, (3) quality improvements, (4) nursing, (5) physical plant, (6) oncology, (7) radiology and radiation medicine, (8) emergency care, (9) laboratory medicine, (10) pharmacy, (11) cardiac surgery, (12) interventional cardiology, (13) intensive care, (14) psychiatry, (15) electronic medical records, and (16) medical staff integration and academic affiliation.

[95] The record shows that ENH itself reported certain investment income as part of its operational income, in both the pre- and post-merger periods. RX 1194 at ENHLTH 1407; CX 2068 at 6.

ENH's improved quality argument raises interesting questions about how quality of care fits within a competitive effects analysis. Quality is one dimension on which firms compete, and differences in prices may reflect differences in quality. Improved quality also may factor into analysis of efficiencies. As the Merger Guidelines recognize, "mergers have the potential to generate significant efficiencies by permitting a better utilization of existing assets, enabling the combined firm to achieve lower costs in producing a given quantity and quality than either firm could have achieved without the proposed transaction," and efficiencies "can enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products." Merger Guidelines § 4. However, ENH does not argue that the claimed quality improvements at Highland Park have come about as a result of cost-saving efficiencies produced by the merger.[96] Instead, ENH characterizes quality improvements at Highland Park as benefits distinct from cost-savings that offset any adverse competitive effects produced by the merger.

The case law provides no clear answers regarding how, or whether, such claimed qualitative benefits ought to fit into a competitive effects analysis. ENH's quality improvements argument here is similar to one made by the defendants, and rejected by the court, in *Rockford Memorial Corp.* In that case, the defendants argued that, even if the merger had anticompetitive effects, any adverse effects for consumers were outweighed by qualitative benefits to consumers from expanded and improved services that the merging hospitals intended to undertake. 717 F. Supp. at 1287-88. Although the court acknowledged that "the improvement in services would have a positive effect for consumers of healthcare in the relevant market," it held that such improvements were "irrelevant for the present § 7 inquiry" because "the court's exclusive role is to evaluate the merger's effect on competition for the relevant market and no more." *Id*. at 1288-89.[97] *Id*

will not suffice); *Staples*, 970 F. Supp. at 1089-90 (rejecting claimed efficiencies that were "unverified" and not supported by "credible evidence").

ENH argues that the first of these requiremen

affiliation with Evanston or another hospital, IDF ¶¶ 952-58; (2) before the merger Highland Park already had begun to make a number of the improvements that ENH contends the merger produced; and (3) a number of the changes that ENH made at Highland Park after the merger reflect emerging trends in the industry, rather than benefits unique to the merger. IDF ¶ 895 (quality assurance program); IDF ¶¶ 901-02 (quality improvement program); IDF ¶ 950 (decentralized dispensation of medication); IDF ¶ 973 (use of in

camera.[99] Although ENH's quality expert, Dr. Chassin, included some quantitative data in his analysis (*e.g.*, comparing Highland Park's pre- and post-merger rates of administration of aspirin and beta blockers to heart attack patients, TR 5281-83 (Chassin)), his analysis was principally qualitative, and was itself based in large part on anecdotal information provided by ENH's current administrative and medical leadership. TR 3011-12 (Romano); TR 5161-66 (Chassin).[100]

We recognize that assessing the impact on quality of ENH's changes at Highland Park is not a simple matter and that, as Dr. Chassin testified, outcome measures are not always valid

VII. COUNT II

Complaint counsel has appealed the ALJ's decision not to issue an order against respondent under Count II. Complaint counsel alleges in Count II that the transaction violated Section 7 because the evidence shows that the transaction allowed ENH to exercise market power. Complaint Counsel did not allege a relevant product or geographic market in Count II, stating that it is not necessary to do so. CB 72-74.

Having found that the evidence is sufficient to define the product and geographic markets, and that complaint counsel has prevailed under Count I, we consider it unnecessary to decide whether the law permits establishing a violation of Section 7 without defining a relevant

experiments allows for direct observation of the effects of competition between the merging parties, as well as the absence of such competition.

A line of modern cases brought under Section 1 of the Sherman Act is instructive. These courts have analyzed whether it is appropriate to determine the lawfulness of ongoing or completed conduct through direct effects evidence, in lieu of market definition. In *FTC v. Indiana Federation of Dentists*, 476 U.S. 447 (1986) ("*IFD*"), the Supreme Court reviewed an FTC decision that a dental association violated the antitrust laws by promulgating and enforcing a rule to withhold x-rays requested by dental insurers for use in claims evaluations. The association argued on appeal to the Supreme Court that the FTC's decision was wrong as a matter of law because the FTC had not specifically defined the relevant market. *Id.* at 460. The Supreme Court disagreed, holding that product market analysis "is but a surrogate for detrimental effects." *Id.* The Court further stated that "proof of actual detrimental effects, such as a reduction of output, can obviate the need for an inquiry into market power" through product market analysis. *Id.* at 460-61 (quoting VII PHILLIP AREEDA, ANTITRUST LAW ¶ 1511, at 429 (1st ed. 1986)).

A number of lower courts in Section 1 cases, relying on *IFD*, have held that it is appropriate to prove anticompetitive effects through direct evidence in place of market definition. In *Toys "R" Us*, the Seventh Circuit reviewed an FTC decision that held unlawful agreements between Toys "R" Us and a group of toy manufacturers in which each manufacturer promised to restrict distribution of its products to low-priced warehouse stores. Toys "R" Us argued that the Commission's decision was deficient because the Commission had not established that the company had a large share of a relevant market. 221 F.3d at 937. The court of appeals rejected this claim, holding that the Commission's direct evidence of anticompetitive effects was sufficient to establish an antitrust violation:

> [Toys "R" Us] seems to think that anticompetitive effects in a market cannot be shown unless the plaintiff, or here the Commission, first proves that it has a

While *IFD* and *Toys "R" Us* involved horizontal conduct that arguably was subject only to a "quick look," courts have held that it is equally appropriate to use direct effects evidence in lieu of formal market definition in cases subject to a full rule of reason analysis. *See, e.g.*, *Todd v. Exxon Corp.*, 275 F.3d 191, 207 (2d Cir. 2001) ("[U]se of anticompetitive effects to demonstrate market power . . . is not limited to 'quick look' or 'truncated' rule of reason cases.").

We recognize that *IFD* and its progeny did not make a complete break from the market definition process. In each of these cases, the courts also found that there was sufficient evidence to identify at least the "rough contours" of the relevant product and geographic markets. *See Republic Tobacco Co. v. North Atlantic Trading Co.*, 381 F.3d 717, 736 (7th Cir. 2004). We also recognize that these cases did not involve Section 7. But this does not negate the conceptual force of these decisions. None of these courts held that market definition was a necessary supplement to the direct effects evidence. Rather, they endorsed the use of direct effects evidence to determine, even absent a market definition, whether ongoing conduct has facilitated the exercise of market power.

Antitrust doctrine is not static. *See, e.g.*, *State Oil Co. v. Khan*, 522 U.S. 3 (1997) (overruling early decision that held that vertical maximum price fixing was *per se* violation of the Sherman Act). It is important that the antitrust laws be able to "adapt[] to changed circumstances and the lessons of accumulated experience." *Id.* at 20. Consequently, we do not rule out the possibility that a future merger case may lead us to consider whether complaint counsel must always prove a relevant market.

VIII. REMEDY

Having found that Evanston's acquisition of Highland Park violated Section 7 of the Clayton Act, we turn to fashioning the appropriate remedy. The ALJ determined that ENH should divest Highland Park. ID 202-06. The ALJ also proposed a variety of other requirements intended to ensure that Highland Park would remain a viable hospital after divestiture and retain certain improvements that were implemented after the merger. ID 206-08.

Complaint counsel argues that the Commission should affirm the ALJ's order, but also cross-appeals and urges the Commission to add provisions that would require ENH to assist Highland Park in the continuation of its cardiac surgery program, provide incentives for ENH's employees to accept job offers from Highland Park, and indemnify any monitor or trustee charged with overseeing the divestiture.

Respondent argues that, if we find liability, we should forgo ordering divestiture and instead should restore competition by requiring ENH to negotiate and maintain separate MCO contracts on behalf of Evanston on the one hand and Highland Park on the other. In conjunction, or in the alternative, respondent also suggests that we could require ENH to give the Commission advance notification of any future acquisition or joint venture that ENH proposes to undertake.

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996 F.2d 537, 546 (2d Cir. 1993) (explaining that plaintiff may avoid a "'detailed market analysis' by offering 'proof of actual detrimental effects, such as a reduction of output'") (citation omitted).

The goal of a remedy for a Section 7 violation is to impose relief that is "necessary and appropriate in the public interest to eliminate the effects of the acquisition offensive to the statute." *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586, 607 (1957). Thus, we attempt to craft a remedy that will create a competitive environment that would have existed in the absence of the violations. *In re RSR Corp.*, 88 F.T.C. 800, 893 (1976), *aff'd*, *RSR Corp. v. FTC*, 602 F.2d 1317 (9th Cir. 1979). "The antitrust laws would deserve little respect if they permitted those who violated them to escape with the fruits of their misconduct on the grounds that imposition of an effective remedy would incidentally result in even a substantial monetary loss." *RSR*, 88 F.T.C. at 895.

Structural remedies are preferred for Section 7 violations. *See United States v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 329 (1961) (calling divestiture "a natural remedy" when a merger violates the antitrust laws). As we recently said, "[m]uch of the case law has . . . found divestiture the most appropriate means for restoring competition lost as a consequence of a merger or acquisition." *In re Chicago Bridge & Iron Co.*, No. 9300, 2005 WL 120878, at 93 (FTC Jan. 6, 2005). Divestiture is desirable because, in general, a remedy is more likely to restore competition if the firms that engaged in pre-merger competition are not under common ownership. There are also usually greater long-term costs associated with monitoring the efficacy of a conduct remedy than with imposing a structural solution.

In this case, the transaction eliminated the pre-merger price competition between Evanston and Highland Park, as well as the MCOs' option of contracting with one hospital but not the other. We can seek to remedy this competitive harm by requiring ENH to divest Highland Park or through injunctive restraints. After careful review of the record, we have determined that this is the highly unusual case in which a conduct remedy, rather than divestiture, is more appropriate.

A long time has elapsed between the closing of the merger and the conclusion of the litigation. This does not preclude the Commission from ordering divestiture, but it would make a divestiture much more difficult, with a greater risk of unforeseen costs and failure. ENH has integrated the operations of Evanston, Glenbrook, and Highland Park Hospitals, and has made improvements at Highland Park since the merger. The large majority of these improvements could have occurred without the merger, and therefore do not bear on whether the transaction violated Section 7. Nonetheless, while the improvements do not vindicate the merger under the antitrust laws, they are relevant to determining whether divestiture is appropriate because divestiture may reduce or eliminate the resulting benefits for a material period of time.

Thus, we need to consider whether certain improvements would not survive the divestiture *and* would take Highland Park a significant time to implement on its own after a divestiture. Two significant improvements meet these conditions – the development and implementation of the cardiac surgery program and the implementation at Highland Park of EPIC, the state-of-the-art medical record computer system.

The record reflects that a divestiture may have a substantial negative effect on Highland Park's cardiac surgery programs. Complaint counsel's expert, Dr. Romano, testified that it was not clear whether, without Evanston, Highland Park would have the volume that it needed to

maintain the cardiac surgery program. TR 3193 (Romano), *in camera*. If Highland Park lost its cardiac surgery program, or if the quality of its surgical program diminished, then the quality of patient care to the community would suffer. Highland Park would need to transport some or all of its patients needing emergency cardiac surgery to other hospitals, potentially creating life-threatening risks. TR 5612-13 (Chassin); TR 4457 (Rosengart). The possibility of a delay in reestablishing cardiac surgery services at Highland Park is a significant factor that we must weigh in considering a remedy.

A delay in reestablishing Highland Park's cardiac surgery program also could put at risk Highland Park's interventional cardiology services. An interventional cardiology program involves procedures that may be scheduled in advance. To provide interventional cardiology services, however, it is necessary to have a cardiac surgery program as a back-up for the interventional program if complications occur. TR 5306-07 (Chassin).

We are also concerned about the effect of divestiture on Highland Park's ability to use EPIC. Although the implementation of the EPIC system at Highland Park was not a merger-specific efficiency, it likely would take Highland Park significant time to install EPIC (or a comparable record keeping system) independently, at a cost of millions of dollars if we ordered divestiture. ENH spent approximately $14 million on EPIC and took more than one year to deploy the system fully. TR 1984 (Hillebrand); TR 1251, 1355 (Neaman); TR 3523 (O'Brien); TR 3976, 3987-88 (Wagner). We could order ENH to continue to make EPIC available to Highland Park for some time, but we are concerned about the potential effects on patient care from the inevitable glitches involved in Highland Park's swapping out complex software systems.

Accordingly, we reject divestiture as a remedy and will impose an injunctive remedy that requires respondent to establish separate and independent negotiating teams – one for Evanston and Glenbrook Hospitals ("E&G"), and another for Highland Park. While not ideal, this remedy will allow MCOs to negotiate separately again for these competing hospitals, thus re-injecting competition between them for the business of MCOs. Further, ENH should be able to implement the required modifications to its contract negoy

challenge occurs before or after consummation. Thus, where it is relatively clear that the unwinding of a hospital merger would be unlikely to involve substantial costs, all else being equal, the Commission likely would select divestiture as the remedy.

Although we have decided on the nature of the relief that is appropriate for this case, we lack sufficiently detailed information about the personnel involved in ENH's contract negotiation operations, or ENH's overall busin