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
CFF – Complaint Counsel's Proposed Findings of Fact
CX – Complaint Counsel's Exhibit
DX – Demonstrative Exhibit
ID – Initial Decision of the Administrative Law Judge
IDF – Numbered Findings of Fact in the ALJ's Initial Opinion
JX – Joint Exhibits
RB – Respondent's Appeal Brief
RFF – Respondent's Proposed Findings of Fact
RFF Reply – Respondent's Reply Findings of Fact
RPTB – Respondent's Post-Trial Brief
RRB – Respondent's Brief in Reply and Opposition to Cross-Appeal
RX – Respondent's Exhibit
TR – Transcript of Trial before the ALJ.

[2] In this opinion, unless otherwise noted, we adopt complaint counsel's convention of referring to the pre-merger Evanston Northwestern Healthcare Corporation entity (including Glenbrook Hospital) as "Evanston" or "Evanston Hospital." "Highland Park" refers to the pre- and post-merger Highland Park Hospital facility, as well as Lakeland Health Services, Inc., the parent corporation of Highland Park Hospital prior to the merger. "ENH" refers to the post-merger entity that includes Evanston Hospital, Glenbrook Hospital, and Highland Park Hospital.

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 bargaining leverage produced by the merger.

The econometric analyses performed by both complaint counsel's and respondent's economists also strongly support the conclusion that the merger gave the combined entity the ability to raise prices through the exercise of market power. The economists determined that there were substantial merger-coincident price increases and ran regressions using different data sets and a variety of control groups that ruled out the most likely competitively-benign explanations for substantial portions of these increases. The record does not support respondent's position that the merger-coincident price increases reflect ENH's attempts to correct a multi-year failure by Evanston's senior officials to charge market rates to many of its customers, or increased demand for Highland Park's services due to post-merger improvements.

We do not agree with the ALJ, however, that a divestiture is warranted. The potentially high costs inherent in the separation of hospitals that have functioned as a merged entity for seven years instead warrant a remedy that restores the lost competition through injunctive relief.

II. PROCEDURAL HISTORY

A. Pleadings

The Commission issued a three-count complaint on February 10, 2004. The first count alleged that the merger violated Section 7 of the Clayton Act in specified relevant product and geographic markets. Compl. ¶¶ 16-17, 27. The complaint alleged that the relevant product market was "general acute care inpatient hospital services" and that the relevant geographic market consisted of the "area directly proximate to the three ENH hospitals and contiguous geographic areas in northeast Cook County and southeast Lake County, Illinois." *Id.* ¶¶ 16-17.

Count II charged that the transaction violated the Clayton Act because it enabled ENH to raise its prices to private payors above the prices that the hospitals would have charged absent the merger. *Id.* ¶ 32. Unlike Count I, however, Count II did not allege a particular product or geographic market and did not incorporate the complaint's earlier product market and geographic market allegations by reference. *Id.* ¶¶ 29-32.

Respondent denied the material allegations of Counts I and II. Respondent also asserted a number of defenses, the most pertinent of which is that the merger yielded significant efficiencies and improvements in the quality of patient care that outweigh any alleged anticompetitive effects. Second Am. Answer ¶¶ 1-15, 20-21.

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.*, 898 F.2d 1278, 1284 (7th Cir. 1990), the ALJ also held that the fact that inpatient and outpatient services have a common provider does not compel a finding that they are in the same relevant product market. ID 133-34.

[5] The HHI is calculated by summing the squares of the individual market shares of all the participants. U.S. Dep't of Justice & Federal Trade Comm'n, *Horizontal Merger Guidelines* § 1.5 (1992, revised 1997) ("Merger Guidelines"), *available at* http://www.ftc.gov/bc/docs/horizmer.htm.

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

III. STANDARD OF REVIEW

Pursuant to 16 C.F.R. § 3.54 (2007), the Commission reviews the record *de novo* by considering "such parts of the record as are cited or as may be necessary to resolve the issues presented and . . . exercis[ing] all the powers which [the Commission] could have exercised if it had made the initial decision."[8]

IV. FINDINGS OF FACT

A. Third-Party Payor Insurance System

In many markets, vendors set or negotiate a price, which is paid in full by their customers. The costs and benefits of the product or service are fully internalized by the vendors and the customers. The market for hospital services is more complex. Hospitals and patients rarely negotiate directly over the price of hospital services, and patients almost never pay directly the full cost of the hospital services that they receive. TR 480 (Mendonsa); TR 2456-58, 2461, 2464-65 (Haas-Wilson); TR 5906 (Noether). Instead, various types of "third-party payors" (primarily public and private insurance entities) negotiate the prices in advance on a periodic basis, and pay the bulk of the hospitals' charges. TR 480 (Mendonsa); TR 2457-58, 2461 (Haas-Wilson); RX 1743 at 6-7. Private insurance companies then sell health care policies to employers and individuals, who pay premiums for the policies. TR 2461-62 (Haas-Wilson). Individual members often also pay a co-payment amount or a deductible when they use hospital services. TR 477-78 (Mendonsa); TR 2464 (Haas-Wilson).

The primary public third-party payors are the federal government's Medicare and the joint federal and state Medicaid programs. Medicare provides health insurance for the elderly, and Medicaid provides coverage for low-income persons. TR 2454 (Haas-Wilson). ENH obtains slightly less than half of its revenues from patients who are covered by the Medicare or Medicaid programs. IDF ¶¶ 127, 134-35. We do not discuss the Medicare and Medicaid systems further because complaint counsel did not allege that the merger increased the prices paid by Medicare or Medicaid for hospital services.

Approximately half of ENH's revenues come from private insurers. IDF ¶ 134.[9] The United States has a largely employer-based health care system in which a majority of consumers

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respondent's electronic back-up tapes. The Commission denies this request because the issue is now moot.

[8] We adopt the ALJ's findings of fact to the extent those findings are not inconsistent with this opinion. In addition, unless otherwise noted, any Commission citation to any trial testimony, exhibit, or deposition segment in this opinion constitutes a determination by the Commission that the cited testimony, exhibit, or deposition segment is relevant, material, and reliable evidence, and therefore admitted into the record of this proceeding. 16 C.F.R. § 3.43(b). Each such determination shall be conclusive, with respect to determining the contents of the record of this proceeding, notwithstanding any objection or response thereto registered by either complaint counsel or counsel for respondent.

[9] The remaining portions of ENH's volume are charity care and a very small percentage of patients who self-pay. IDF ¶ 137.

who have private health insurance obtain it through their employers. Typically, consumers select an insurance plan from one or more private insurance companies with which their employers have contracted. TR 2460-61 (Haas-Wilson).

The private health insurance market has changed substantially over the past two decades. In the 1980s, the predominant type of insurance in Chicago was indemnity insurance. IDF ¶ 153; TR 1831-32 (Hillebrand). In a typical indemnity plan, the consumer could select any hospital (or doctor), and the insurance company reimbursed the individual a set amount based on the care provided. IDF ¶ 155. Because indemnity plans allowed their insureds to select any hospital or provider, hospitals did not need to compete to be covered by the plans. TR 2466 (Haas-Wilson).

Concerns about rising costs, among other factors, gave rise to MCOs, which now account for the vast majority of private insurance in the Chicago market. TR 1832-33 (Hillebrand). There are two broad categories of MCO plans: health maintenance organization plans ("HMOs") and preferred provider organization plans ("PPOs"). An HMO plan provides coverage to members through a "network" of physicians, hospitals, and other health care providers that contract to furnish such services. RX 1743 at 6. An HMO is generally a fully insured product: employers and consumers pay premiums to the provider of the HMO, and the provider assumes the risk that those premiums will be sufficient to cover the members' healthcare expenses. TR 585 (Neary). Because the insurance company assumes the risk, HMO plans often have a smaller network of physicians and hospitals than do risk-sharing plans, and they provide benefits only to members who receive care from in-network providers. TR 1759-60 (Hillebrand); TR 477 (Mendonsa).

PPOs include elements of both managed care and fee-for-service arrangements. RX 1743 at 6. A typical PPO plan has contracts with a range of health care providers that is larger than the range of providers in an HMO network. TR 2460 (Haas-Wilson). PPOs generally offer members substantial financial incentives to obtain their health care "in network" or from "preferred providers." TR 477-78 (Mendonsa); RX 1743 at 6. PPO members, however, can obtain health care from other providers at additional cost. IDF ¶ 148; TR 477-78 (Mendonsa). Many MCOs offer both HMO and PPO plans. TR 477 (Mendonsa).[10]

Depending on the type of insurance plan, when consumers receive services from an in–network hospital, they pay a deductible and/or a co-payment, RX 1743 at 6, which usually constitutes a small portion of the total price for the services that the patient receives. PPOs generally are more expensive than HMOs because they provide coverage or reimbursement for a larger set of providers. In the Chicago area, the use of HMOs has declined substantially in favor of PPOs. TR 1834 (Hillebrand); TR 479-80 (Mendonsa).

[10] There are also point of service plans (POS). A POS is a variation of a PPO that contracts with a limited number of hospitals and doctors and extends terms of coverage to enrollees based on terms that vary depending on the provider from which the enrollee seeks care. CFF ¶¶ 187-88.

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 ("Glenbrook"), prior to merging with Highland Park Hospital. Evanston Hospital is located in Evanston, Illinois. It is a 400-bed facility that provides a range of primary, secondary, and tertiary services. For example, Evanston offers obstetrical and pediatric services, psychiatric care, neurosurgery, radiation therapy, cardiology services, orthopedics, trauma centers, and the Kellogg Cancer Care Center. CX 84 at 8; CX 681 at 2; TR 299 (Newton); TR 1291-93 (Neaman); TR 2083-84 (Spaeth).

Glenbrook is a 125-bed facility located in Glenview, Illinois. IDF ¶¶ 2, 9, 11. Glenbrook provides primary and secondary services. IDF ¶ 12.

In fiscal year 1998, Evanston Hospital and Glenbrook together generated $441 million in revenue. CX 84 at 16. That year, 51% of Evanston's revenue came from private MCOs, 37% from Medicare and Medicaid, and 12% from other sources. CX 84 at 8.

2. Lakeland Health Services

Highland Park Hospital was the sole subsidiary of Lakeland Health Services, Inc. The hospital is located in Highland Park, Illinois, and has approximately 150 to 200 beds. IDF ¶¶ 20, 22. Before the merger, Highland Park offered primary and secondary services, but not tertiary services. IDF ¶¶ 22, 202, 203. The services offered included obstetrical service, a level II prenatal center, pediatric services, diagnostic services, a fertility center, psychiatric care, neurosurgery, radiation therapy, cardiology services, and a level II trauma center. CX 84 at 13, 15; CX 699 at 24; TR 299 (Newton); TR 2083-88 (Spaeth).

In fiscal year 1998, Highland Park generated $101 million in revenue. CX 84 at 16. Forty-five percent of Highland Park's revenues that year came from MCOs, 43% from Medicare and Medicaid, and 12% from other sources. CX 84 at 13.

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[12] There are even more complex medical services, which sometimes are referred to as "quaternary services." TR 1294 (Neaman); TR 2009 (Hillebrand); TR 2491 (Haas-Wilson); TR 2701 (Haas-Wilson), *in camera*. The record does not indicate that there is a consensus about how to categorize these services, but they include procedures such as solid organ transplants and treatment for severe burns, TR 2491 (Haas-Wilson), and require very specific human and physical capital. TR 2701 (Haas-Wilson), *in camera*. Neither Evanston nor Highland Park provides these types of medical services. TR 298 (Newton); TR 1295, 1378 (Neaman); TR 2009-10 (Hillebrand); TR 2665 (Haas-Wilson). Other hospitals in the Chicago area, such as Northwestern Memorial Hospital and the University of Chicago, do offer these very advanced services. TR 1378 (Neaman).

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. Advocate Lutheran General

Advocate Lutheran General is 10.2 miles west of Evanston Hospital, approximately a 21-minute drive. IDF ¶ 272; RX 1912 at 20, *in camera*. Advocate Lutheran General is a 521-bed hospital that provides primary, secondary, and tertiary care. IDF ¶¶ 273-74. Advocate Lutheran General is the largest hospital in the Advocate system, which itself consists of eight hospitals. IDF ¶ 273; RX 1503 at 22, *in camera*; RX 1912 at 60.

2. Rush North Shore

Rush North Shore is 3.7 miles southwest of Evanston Hospital, approximately a 9-minute drive. IDF ¶ 281; RX 1912 at 20, *in camera*. Rush North Shore has 150 to 200 beds and provides primary, secondary, and some level of tertiary services. IDF ¶ 282.

3. St. Francis

St. Francis is 3 miles south of Evanston Hospital, approximately an 8-minute drive. IDF ¶ 87; RX 1912 at 20, *in camera*. St. Francis has 300 to 400 beds. IDF 288. St. Francis provides primary, secondary, and some level of tertiary services. IDF ¶ 289.

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 as an opportunity to "strengthen negotiation capability with managed care companies through merged entities" and not to "'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. Likewise, the minutes of an April 5, 1999 meeting record an Evanston representative as saying that "[t]his would be an opportunity to join forces and grow together rather than compete with each other." CX 2 at 7. In September 29, 1999, Neaman told his managers and his Board that the merger would "[i]ncrease our leverage, limited as it might be, with the managed care players and help our negotiating posture." IDF ¶ 335; CX 1566 at 9.

Neaman and Ronald Spaeth, the President and Chief Executive Officer of Highland Park before the merger, also wrote that a goal of the transaction was to "strengthen their negotiating positions with managed care" organizations. CX 19 at 1; TR 1036-37 (Neaman). A Spring 1999 report by Highland Park's Chairman explains: "Everybody progresses [sic] to see the community benefit that would be derived as well as the economic benefit of not being out there doing battle with one another in what will be a common battle ground if you want to call it that." CX 4 at 1. Most significantly, Spaeth's bottom-line conclusion about the transaction was that "it would be real [sic] tough for any of the Fortune 40 companies in this area whose CEOs either use this place [Highland Park] or that place [Evanston Hospital and Glenbrook] to walk from Evanston, Highland Park, Glenbrook and 1700 of their doctors." *Id.* at 2.

We find that the testimony of Mark Newton, a former senior official at Highland Park, also supports the conclusion that Highland Park thought that the transaction would give it greater leverage to negotiate higher prices from payors. Newton testified that, before the merger, he had prepared an outline for a strategic planning retreat that identified various ways that Highland Park could increase its market share. TR 345-49 (Newton). The document identified the possibility of a merger between Highland Park and Evanston, Northwest Community, Lake Forest, or Condell Hospitals. CX 1869 at 6. Newton concluded that the merger between Highland Park and Evanston would produce the entity with the greatest negotiating strength with payors based on "the array of services, the numbers of the medical staff, as well as the communities that were being served." TR 350-51 (Newton). He explained that "[o]f the options that we had looked at in terms of merger . . . the power in the relevant market would be higher with Highland Park and Evanston than with those others." TR 354 (Newton). The reasons included "the proximity of the institutions, the cultural relationships that exist in that community, [and] the placement of the medical staffs." TR 354 (Newton).

Finally, we find that Evanston's consultants also expressed confidence, prior to the closing, that the merger would give the combined company greater bargaining leverage with MCO customers. Evanston engaged the Bain consulting firm in the fall of 1999 to assist in strategic planning related to the merger. TR 1159 (Neaman). In an August 30, 1999 proposal letter from Bain to Neaman, Bain wrote: "As a consequence of the merger, ENH will have broad geographic coverage on the North Shore, with three hospitals and an extensive physician network. The merger provides the opportunity to reduce costs, refocus activities at the three hospitals, shift activity from the overcrowded Evanston Hospital, and negotiate contracts with payors from a stronger position." CX 2072 at 1. In October 1999, in a document entitled

"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 these networks to insurance companies, third-party administrators, and employers. TR 142-43 (Ballengee). Jane Ballengee, PHCS' Regional Vice President for Network Development, testified about PHCS' post-merger negotiations with ENH. Ballengee was PHCS' Territory Director for the Chicago region when PHCS renegotiated its contract with ENH after the merger, although she did not participate in the negotiations. TR 146-47 (Ballengee).

Throughout the 1990s, PHCS had negotiated new rates with Evanston approximately every one and one-half years. TR 168-69 (Ballengee). Ballengee testified that PHCS viewed Highland Park as Evanston's "primary alternative" and that, before the merger, PHCS believed that it could select Evanston or Highland Park and "work them off against each other." TR 166-68 (Ballengee). Prior to the merger, PHCS had never threatened to drop either Evanston or Highland Park, but PHCS believed that its ability to do so was understood and that this ability restrained the hospitals' prices. TR 171 (Ballengee). PHCS had dropped other hospitals from its network when it was not satisfied with the offered prices. TR 154-56 (Ballengee). Ballengee further testified that if Evanston had made unacceptable price demands pre-merger, PHCS could have eliminated it from the network and used Highland Park as the alternative, and vice-versa. TR 167 (Ballengee).

Ballengee testified that she believed that competition between Evanston and Highland Park had kept price increases to an average of 4% to 8% for each contract renegotiation. TR 168-71 (Ballengee). By comparison, post-merger, ENH sought and obtained what Ballengee testified was approximately a 60% price increase, primarily through increases in Evanston's prices. TR 179 (Ballengee).[16] Ballengee testified that PHCS accepted the increase because

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[15] We limit our findings about the MCO testimony to the MCOs' descriptions of the role played by the ENH hospitals in their networks, their post-merger negotiations with ENH, ENH's post-merger price increases, and which hospitals the MCOs viewed as competitors to the ENH hospitals before and after the merger. Both sides have presented extensive evidence about the tone and the rhetoric used during the MCO negotiations. We have carefully reviewed and considered these portions of the record and, while such information can be probative in antitrust cases, we have concluded that in this case this testimony neither supports nor undermines the conclusion that the merger gave ENH market power.

[16] Data analyzed by complaint counsel's economist appeared to show that, post-merger, ENH increased its prices to PHCS (as a percentage *per case*) approximately 60%. CX 6279 at 4-5 (62.3% as

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, Evanston and Aetna had last negotiated a contract in 1996, and the prices that Aetna negotiated at that time had remained in effect through 2000. IDF ¶ 437; TR 533-34, 563 (Mendonsa), *in camera*. Mendonsa testified that the ENH hospitals had been part of Aetna's network for many years because it was "extremely important" to include them. TR 516 (Mendonsa), *in camera*. Mendonsa also testified that it is very important to have hospital coverage in the North Shore suburbs because executives of employers live there who are involved in the companies' decisions. TR 516-17 (Mendonsa), *in camera*. Mendonsa was

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calculated using the data received from the FTC's Civil Investigative Demand to ENH and 59.6% as calculated using data received from the consulting firm NERA), *in camera*; TR 2522 (Haas-Wilson), *in camera*; CX 6279 at 4-5.

[17] For the same reason, we find not particularly informative a PHCS statement to its customers, during its post-merger negotiations with ENH, about the existence of other hospitals in the same geographic area as Evanston and Highland Park. RX 712 at 2-3. Further, Ballengee testified that her customers "made it very clear to [her] that they didn't believe that they could have a marketable network, that they could compete in the marketplace without having the new ENH entity in it." TR 180 (Ballengee).

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 Aetna calculated increased ENH's prices by approximately 45% to 47% over a three-year period. TR 539-40 (Mendonsa), *in camera*.[18]

Mendonsa testified that Aetna signed the post-merger contract with ENH because Aetna thought that people who lived in the communities around the ENH hospitals would not want to travel to other hospitals. TR 541-43 (Mendonsa), *in camera*. He explained that he believed 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, and . . . neither are they going to do that with Northwest Community Hospital." TR 542 (Mendonsa), *in camera*. Mendonsa further testified that Aetna believed that it "couldn't walk away" from ENH post-merger because it would have "devastated" Aetna and "shut down" its marketing to local employers. TR 518, 520 (Mendonsa), *in camera*.

In addition, Mendonsa testified that before the merger Evanston was "extremely desirable" and that Aetna's "walk-away point would have been pretty high . . . [but that Aetna] would have walked away[] because we still had Highland Park and we had Northwestern in the city and we had coverage." TR 530 (Mendonsa), *in camera*. He also stated that "there probably would have been a walk-away point with the two independently. But with the two together, that was a different conversation." TR 520 (Mendonsa), *in camera*. Aetna had terminated hospital contracts in the past when it had concluded that the prices were too high. TR 544 (Mendonsa), *in camera*. To do so with ENH, however, "would have killed [Aetna's] marketing to any middle market or national accounts." TR 530 (Mendonsa), *in camera*.

On cross-examination, Mendonsa testified that Evanston competed with Northwestern and Lutheran hospitals on tertiary services, and that Evanston also competed with St. Francis and Rush North Shore. TR 561 (Mendonsa), *in camera*. Mendonsa also testified that Highland Park competed with Lake Forest. TR 562 (Mendonsa), *in camera*.

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[18] Respondent does not dispute Aetna's arithmetic about the post-merger price increase, but argues that it is more reasonable to calculate the increase on an annual percentage basis starting in 1996. RRB 44.

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 to request the renegotiation of its contract. TR 594-95 (Neary). One Health's previous contracts with Evanston and Highland Park were from 1996 and 1995, respectively. TR 596-97 (Neary). Bain had advised Evanston of what Bain believed was a "substantial difference" between One Health's pre-merger rates at Highland Park and Evanston. CX 75 at 9-10.

Neary testified that he thought that, after the merger, One Health was not in a strong negotiating position because he believed that Evanston had purchased "its main competitor" that "drew patients from the same general area." TR 600-01 (Neary). Neary also testified that Advocate Lutheran General was "one of several" alternatives to ENH in 2000, along with St. Francis, Condell, and Northwestern Memorial. TR 631 (Neary).

Neary further stated "that it had been several years since the [Evanston Hospital] contracts had been renegotiated and that it was appropriate to . . . increase some of the rates," and One Health was willing to give a price increase based on an index. IDF ¶ 423; TR 608, 762-63 (Neary), *in camera*; CX 2085, *in camera*. When ENH requested a larger increase than One Health thought was warranted after the merger, however, One Health and ENH failed to reach an agreement. One Health believed that ENH had proposed an increase of "26% to 219% of the current rate agreements in place." CX 2085, *in camera*; TR 762 (Neary), *in camera*. One Health allowed the contract to lapse on August 31, 2000. TR 609-11 (Neary).

Neary testified that, shortly after its contract with ENH lapsed, One Health's customers started to complain about their lack of access to ENH, and that One Health's membership reports reflected a loss of membership. IDF ¶¶ 427-28; TR 615-17 (Neary); *see also* TR 1452, 1487-88 (Dorsey). At that time, One Health also had in its network Condell, Lake Forest, Northwest Community, Advocate Lutheran General, Rush North Shore, and St. Francis. TR 611 (Neary); TR 1459 (Dorsey). One Health ultimately agreed in the second half of 2000 to a contract with ENH that contained price increases that were "similar" to those in ENH's initial proposal. TR 763-64 (Neary), *in camera*.

On cross-examination, Neary testified that Advocate Lutheran General, St Francis, and Condell were "several" main alternatives to ENH. In addition, he testified that Northwestern Memorial Hospital was also an "alternative" to ENH. TR 630-31 (Neary).

Neary's testimony that Evanston had purchased its "main competitor" and that One Health briefly had dropped ENH after ENH requested substantial price increases, and then entered into a contract with ENH at similar levels, provides some indication that pre-merger competition between Evanston and Highland Park prevented them from individually exercising market power. We assign only a small amount of weight to the testimony, however, because Neary provided less information about the substitutability of Evanston and Highland Park than did Ballengee and Mendonsa. Neary's testimony about the existence of other "main" alternatives to ENH also lacks sufficient detail to allow for firm conclusions.

Kevin Dorsey also testified about One Health's post-merger contract negotiations with ENH. Dorsey was employed at One Health from 1997 to 2003, first as a Director of Development and then as a Vice President. TR 1429-30 (Dorsey). Dorsey managed Neary and oversaw One Health's post-merger negotiations with ENH. Dorsey testified that One Health did not play one hospital off against another in negotiations, that he believed that Lake Forest was Highland Park's primary competitor, and that he viewed St. Francis as Evanston's primary competitor. TR 1470-72 (Dorsey). Dorsey's generalized testimony is not particularly informative because he supported it with only minimal supporting facts. TR 1470-72 (Dorsey).

4. Unicare

Lenore Holt-Darcy testified for Unicare. TR 1412-13 (Holt-Darcy). Holt-Darcy is a Unicare Regional Vice President. *Id.* (Holt-Darcy). At the time of the merger, Unicare had both an HMO and a PPO contract with Evanston. The HMO contract had been negotiated in 1994 and contained a one-year term, with automatic annual renewals. CX 5085; CX 5091. Either party could terminate the agreement with ninety days' notice. CX 5091. The PPO contract had been negotiated in 1999. TR 1548, 1599, 1604-05 (Holt-Darcy), *in camera*; CX 216 at 12.[19]

In 2000, Unicare entered into contract renegotiations with ENH. Holt-Darcy testified that Unicare preferred to have rate increases below 10%, but if a hospital's rates needed to "catch up," the annual rate increase could exceed 10%. TR 1503 (Holt-Darcy), *in camera*. Holt-Darcy added that before the merger, Unicare could have developed a network with "adequate coverage" of the North Shore region with Evanston or Highland Park, and a combination of other hospitals. TR 1517-19 (Holt-Darcy), *in camera*. Unicare did not need both Evanston and Highland Park to "serve the geography." *Id.* (Holt-Darcy), *in camera*.

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[19] At the time of the merger, Highland Park also had a PPO contract with Rush Prudential, which was negotiated in 1994. CX 215; CX 5076. This contract also renewed annually, with each party having the right to terminate the contract with ninety days' notice. CX 215 at 15. In 1998, Rush Prudential sought unsuccessfully to contract with Highland Park for its HMO plan. RX 392. While Highland Park did not have any contracts with Unicare before the merger, CX 114, Unicare acquired Rush Prudential in 1999. As a result, Unicare had access to Highland Park. *Id.*

The ALJ found that during the post-merger negotiations with Unicare, ENH officials stated that "[t]hey had sewn up" the North Shore suburbs for hospitals and physicians. IDF ¶ 455; *see also* TR 1546 (Holt-Darcy), *in camera*. The negotiations produced a contract on September 16, 2000, which contained substantial price increases. TR 1536, 1563-64 (Holt-Darcy), *in camera*. Holt-Darcy testified that the contract contained an 80% price increase in the rates that Evanston Hospital charged for Unicare's PPO, TR 1539-40, 1563 (Holt-Darcy), *in camera*, and that prices for Unicare's HMO increased by 7%, 30%, and approximately 25% at Glenbrook, Highland Park, and Evanston Hospitals, respectively. TR 1543 (Holt-Darcy), *in camera*. Holt-Darcy also testified that Unicare had agreed to the substantial price increases because it viewed ENH as a "key provider," and that not to have ENH in the network could have caused major employers, such as Kraft, to select other health plans. TR 1551-53 (Holt-Darcy), *in camera*. Holt-Darcy further explained that the ENH hospitals "had a contiguous service area that would have been hard, painful, for [Unicare's] customers to see them leave." TR 1602 (Holt-Darcy), *in camera*.

On cross-examination, Holt-Darcy testified that Unicare does not overtly play one hospital off against another during contract negotiations. TR 1593-94 (Holt-Darcy), *in camera*. She added, however, that it was not necessary to identify alternatives during negotiations because most hospitals know their competitors. TR 1602-03 (Holt-Darcy), *in camera*. Holt-Darcy also testified that Highland Park competes with Lake Forest and Condell Hospitals, and that Evanston competes with a significant number of tertiary-service hospitals in the Chicago area, including Rush North Shore, St. Francis, Loyola, University of Chicago, University of Illinois, and Northwestern Hospital. TR 1595-96 (Holt-Darcy), *in camera*.

Similar to Mendonsa's testimony, we find that Holt-Darcy's testimony that Unicare could have developed a network with "adequate coverage" of the North Shore region with either Evanston or Highland Park, and a combination of other hospitals, TR 1517-19 (Holt-Darcy), *in camera*, loosely supports the inference that there was significant pre-merger competition between Evanston and Highland Park. Her testimony about the significance of the "contiguous service area," TR 1602 (Holt-Darcy), *in camera*, of the ENH hospitals also suggests that Evanston and Highland Park were close geographic competitors, but because she offered relatively few specifics to support her testimony, we assign it only limited weight. Holt-Darcy's testimony on cross-examination about competition between Evanston and Highland Park and other hospitals is not particularly probative because it did not explain whether and, if so, why this competition was sufficient to defeat a price increase by ENH.

5. United

Jillian Foucre testified for United. Foucre worked at United from 1999 through 2004, and in August of 2001 became United's Chief Operating Officer. TR 877-78 (Foucre). Foucre managed a team that negotiated with United's network providers, including hospitals. TR 879 (Foucre).

United and ENH agreed on a new contract on January 1, 2000. TR 886-87 (Foucre). The new prices were substantially higher than in United's prior contract with Evanston. United's documents show that it believed that ENH's reimbursement rate (on allowed dollars *per day*

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 outlier in terms of its prices. TR 1103 (Foucre), *in camera*.

On cross-examination, Foucre testified that she viewed Condell and Lake Forest as the primary competitors to Highland Park, and that Evanston competes with Advocate Lutheran General, Rush North Shore, and St. Francis. TR 942-44 (Foucre). She testified that with respect to Evanston, "Lutheran General is the most comparable facility from type of services, quality of services, [and] size of facility; however, it is the furthest away. It's got a bit of geographic disadvantage, but it's not terribly far away." TR 944 (Foucre).

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[20] United had three objectives for the 2002 negotiations: (1) change the format of the contract; (2) increase the percentage of the total revenues that it paid to ENH on a per diem basis and reduce the percentage that it paid pursuant to discount off charges terms; and (3) reduce its total payments under the contract. TR 892 (Foucre).

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 proximity of Highland Park and Evanston made them close competitors, but because the testimony lacks detail we assign it only modest weight. Foucre's very general testimony that Evanston and Highland Park competed with other hospitals, by itself, is not particularly informative.

K. ENH Officials' Testimony

Two of ENH's senior executives, Neaman and Spaeth, presented testimony about pre-merger competition among North Shore hospitals. Neaman testified in general terms that he did "[n]ot really" view Highland Park as a competitor to Evanston because Evanston was "a lot bigger than Highland Park . . . [and] offered a much broader array of services." TR 1306-07 (Neaman). He did not explain in detail, however, why Evanston and Highland Park were not close competitors for the large number of primary and secondary services that they both provided. Accordingly, we find that Neaman's testimony is not probative as to the level of pre-merger competition between Evanston and Highland Park.

Spaeth testified that he considered Lake Forest Hospital to have been Highland Park's "primary competitor" before the merger because they are only six miles apart and have "major overlap" between their medical staffs. TR 2239, 2163 (Spaeth).[21] Spaeth also testified that Highland Park competed with Evanston for patients to the south of Highland Park, and that Evanston was competing for patients in Highland Park's core area. TR 2157, 2241 (Spaeth). In addition, he testified that, after Lake Forest, Evanston was Highland Park's closest competitor:

> Q. Let's talk about Highland Park's closest competitors before the merger beyond the market share that we just looked at for your core area. Leaving aside Lake Forest, Evanston was Highland Park's next closest competitor before the merger, correct?
>
> A. Leaving aside Lake Forest? I believe they were, yes, they were among the next one or two competitors.
>
> Q. They were the next closest competitor, correct?
>
> A. They probably were.
>
> * * * *
>
> Lake Forest would be first because of the major overlap in medical staffs. There were probably 200-plus physicians that were on each other's staff. Then the next set of competitors clearly put Evanston --

[21] Terry Chan, a Highland Park employee tasked with analyzing Evanston's and Highland Park's prices shortly before the merger, also testified that she viewed Lake Forest as Highland Park's closest competitor because there are many physicians who are on the staff of both hospitals. TR 730 (Chan).

Q. Well, the next competitor clearly was Evanston, correct?

A. Yes.

TR 2162-63 (Spaeth).

On cross-examination by respondent's counsel, Spaeth testified that he also viewed Lake Forest, Condell, Rush North Shore, Advocate Lutheran General, St. Francis, and the downtown Chicago hospitals (along with Evanston) as competitors to Highland Park because of their "reasonably close" geography and because "[t]hey are all certainly substitutable for Highland Park." TR 2239-40, 2299 (Spaeth). This competition, he explained, allowed MCOs to "go down the street" to Highland Park's competitors to find substitutes for Highland Park in their networks. TR 2299 (Spaeth). Lastly, Spaeth testified that Evanston and Highland Park did not offer similar services because "there is a vast difference between an academic medical center and a community hospital" and because Highland Park did not offer heart care, sophisticated neonatal care or pediatrics, major oncology surgery, or neurosurgery. TR 2285-86 (Spaeth).

We find that Spaeth's testimony that Evanston competed in Highland Park's core service area, and that Evanston was Highland Park's closest competitor (after Lake Forest), indicates that Evanston and Highland Park were close competitors for some services for patients who lived to the south of Highland Park and to the north of Evanston. The fact that Highland Park did not provide heart care or sophisticated neonatal care or pediatrics is not inconsistent with the existence of substantial competition between the two hospitals for primary and secondary services.

L. Econometric Evidence

Complaint counsel and respondent each presented extensive econometric evidence. Complaint counsel's primary economist was Deborah Haas-Wilson, Professor of Economics at Smith College. Respondent's economists were Jonathan Baker, a Professor of Law at American University and Senior Consultant at Charles River Associates Incorporated, and Monica Noether, who was then the Vice President and Head of the Competition Practice at Charles River Associates.[22]

The econometric analyses of complaint counsel and respondent were designed to determine whether ENH charged higher prices than the merging hospitals would have charged if the merger had not occurred, and, if so, whether the price increases were due to an increase in market power produced by the merger. To answer these questions, Haas-Wilson and Baker used a three-step process to predict the prices that ENH would have charged had the merger not occurred. First, they calculated the amount of ENH's post-merger average net price increases to

[22] Dr. Noether is currently the Head of the Litigation and Applied Economics Platform and Professor Baker is a Senior Consultant at CRA International, Inc., a successor corporation to Charles River Associates.

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 other hospitals. TR 2681-82 (Haas-Wilson), *in camera*; TR 4650-53 (Baker), *in camera*.

(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 many, if not all, of the other general acute care hospitals[26] from the Chicago metropolitan area; (c) were at the patient level for each hospital, and included the date of admission, the date of discharge, and in many cases the diagnosis, the age, and the gender of the patient; (d) included "the [dollar] amount that the managed care organization reimbursed the hospital for the care of the patient," TR 2496-97 (Haas-Wilson), and the "diagnostic [or diagnosis] related group [("DRG")] indicating the nature of the hospital service," DX 7068 at 15, *in camera*;[27] and (e) covered seven of the at least fourteen MCOs that appeared to have had contracts with the ENH hospitals, including Aetna, BCBS, Humana, and United. CX 6279 at 5, *in camera*. [28]

Haas-Wilson used the payor data for Aetna, BCBS, Humana, and United purchases. Collectively, these four MCOs accounted for greater than 70% of ENH's MCO patients on a *per case* basis in 2002, *see* CX 6279 at 5, *in camera*, but "less than 60 percent of MCO payments to ENH." DX 7068 at 8, ¶20, *in camera.* By how much less than 60% is not specified in the record. Haas-Wilson also used payor data that covered Great West (formerly known as One Health).[29]

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[25] The exception was the data from Aetna, which ended in August 2002. TR 2512 (Haas-Wilson), *in camera*. Additionally, it appears from DX 7010 at 1, *in camera*, that the data from Humana also ended in August 2002.

[26] The record does not appear to contain a complete list of the other hospitals covered by the payor data. Haas-Wilson described the data as including "information on . . . the care received at many hospitals in the Chicago area." TR 2497 (Haas-Wilson). Later, she stated that her largest control group of hospitals "included all general acute care hospitals in the Chicago PMSA." TR 2548 (Haas-Wilson), *in camera*. From this testimony, we can infer that the payor data included, at the very least, all general acute care hospitals in the Chicago PMSA. Haas-Wilson denoted the area covered by the hospitals as the PMSA. The Commission could not locate a definition of "PMSA" in the voluminous record, but presumably it stands for Primary Metropolitan Statistical Area.

[27] Diagnosis Related Groups ("DRGs") refer to a system created for Medicare used to classify patients into groups expected to require similar hospital resources. There are roughly 500 DRGs. TR 2594 (Haas-Wilson), *in camera*; TR 5912-13 (Noether).

[28] For an unknown reason, the payor data for all four MCOs contained more mothers than babies for obstetrics cases, which Baker and Noether labeled the "missing babies" problem. TR 4625 (Baker), *in camera*; DX 7126 at 74, ¶ 184; *id.* at 103, ¶ 267. The record does not appear to indicate that Haas-Wilson addressed this issue. Baker and Noether dealt with this issue by implementing a correction and by omitting obstetrics cases (both mothers and babies) from some of their analyses. DX 7126 at 74-75, ¶¶ 185-186; TR 4628 (Baker), *in camera*; DX 7068 at 12, ¶ 29, *in camera*.

[29] The Great West data included payments only from the MCOs to the hospitals but not from the patients to the hospitals, while the other payors included the total payments to the hospitals. TR 2576 (Haas-Wilson), *in camera*. Haas-Wilson testified that the Great West data "does not allow me to look at

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]

(2) Price Changes Calculated from the Illinois Data

The Illinois data also were relatively comprehensive. The data set contained data on all patients from all hospitals in Illinois for the periods 1998-99 and 2001-02. TR 2500 (Haas-Wilson); CX 6279 at 7, *in camera*. Unlike the payor data, which contained data for individual MCOs, the Illinois data set identified the payor by general categories of payment types: commercial insurance, self-pay, or HMO, as well as others. TR 2532 (Haas-Wilson), *in camera*; CX 6279 at 7, *in camera*. The data also contained only list prices from the chargemaster (*i.e.*, gross payments) but not the net prices (*i.e.*, negotiated prices or net payments). TR 2500 (Haas-Wilson). Haas-Wilson dealt with this limitation by using Medicare cost reports to derive an estimate of the net prices. TR 2527 (Haas-Wilson), *in camera*. The Medicare cost reports contain aggregate data on both net payments and gross payments by hospitals for inpatient and

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the total reimbursement to the hospital for inpatient care," but she did not explain why she used the data. *Id.* (Haas-Wilson), *in camera*.

[30] For United, the contract effective date was January 1, 2000, which is the same date as the merger. TR 2512 (Haas-Wilson), *in camera*. For Aetna, the contract effective date was June 1, 2000. TR 2512 (Haas-Wilson), *in camera*. The record does not appear to indicate the contract effective dates for BCBS, Humana, and Great West. According to DX 7010 at 1, *in camera*, however, it appears that the contract effective date for the BCBS HMO was July 1, 2000, and the effective dates for the BCBS PPO and the Managed Care Network Provider plans were January 1, 2001; Humana and Great West had contract effective dates of September 15, 2000, and January 1, 2001, respectively.

[31] Baker and Noether also appear to have constructed a total "net" price, which consisted of the payment made by the payor to the hospital, and any payment made directly by the patient. DX 7126 at 76.

[32] Haas-Wilson also calculated the increase in ENH's average net price *per day* post-merger for each of the MCOs' plans: Aetna (48% to 56%); BCBS (-12% (decrease) to 15%); Humana (57% to 82%); United (77% to 202%), CX 6279 at 3, *in camera*; and Great West (79%), CX 6282 at 5, *in camera*.

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 ENH's post-merger average net price *per case* increased, at statistically significant levels, for most of the payors' plans by more than that of the control groups: Aetna (30% to 73%); BCBS' HMO and PPO (1% to 16%); Humana (5% to 53%); United (34% to 113%); and Great West (13% to 27%). CX 6279 at 9, *in camera*; CX 6282 at 5, *in camera*. The ranges reflect Haas-Wilson's use of different control groups and plans.[38] The only payor plan that did not experience at least one statistically significant increase in average net price *per case* beyond the control groups was BCBS' POS plan, which experienced a 12% to 15% decrease. CX 6279 at 9, *in camera*.

Haas-Wilson's application of the DID methodology to the Illinois data produced consistent results, as she again found statistically significant increases in ENH's post-merger

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35 As stated, "PMSA" presumably refers to Primary Metropolitan Statistical Area.

36 For more on specification tests, see G.S. MADDALA, INTRODUCTION TO ECONOMETRICS, Ch. 12 (2d ed. 1992).

37 Haas-Wilson explained that she "selected only those hospitals that had more than 100 admissions in both pre- and post-merger periods" in order to "make sure that outlier admissions wouldn't drive the result at any particular hospital. By 'outlier admission,' [she] mean[t] an admission where the price, because someone had to stay an especially long time in the hospital, was extremely high, much higher than average." TR 2556-57 (Haas-Wilson), *in camera*.

38 At varying levels of statistical significance, Haas-Wilson also found that ENH's post-merger average net price *per day* increased for most payor plans beyond that of the control groups: Aetna (18% to 45%); BCBS' PPO (1% to 4%); Humana (34% to 71%); United (43% to 167%); and Great West (57% to 58%). CX 6279 at 8, *in camera*; CX 6282 at 5, *in camera*. The only payor plans that did not experience at least one statistically significant increase in average net price *per day* beyond the control groups were BCBS' HMO and POS plans, which experienced a 1% to 38% decrease. CX 6279 at 8, *in camera*. The Commission calculated these price changes from CX 6279 at 8 and 9, *in camera*, by subtracting from the figures in the "ENH" column either the "Chicago PMSA," the "Non-Merging Chicago," or the "Teaching Chicago" column.

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," or the "Teaching Chicago Control Hospitals" column.

[41] Haas-Wilson used four different measures for patient mix: All Patient Refined DRGs ("APRDRGs"), APRDRGs with a "length of stay" variable, DRG weights, and DRG weights with a "length of stay" variable. TR 2622-23 (Haas-Wilson), *in camera*.

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 in teaching intensity or increases in market concentration. Linear least squares regression, one of the most common forms of regression, characterizes the relationship by (1) assuming that it can be expressed as a straight line and (2) choosing a line of "best fit" that minimizes the sum of the squared differences between the predicted values (those on the line) and the actual values of the variable of interest. *See* MADDALA, *supra* note 36, Ch. 3.

Haas-Wilson's regressions tested for whether changes in patient mix, customer mix, and teaching intensity explained ENH's post-merger increases in net prices, and also implicitly, by using control groups, tested for whether market-wide changes in cost, demand, and regulation

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[42] Again, the Commission calculated these percentages from the data on CX 6279 at 13, *in camera*, and CX 6279 at 14, *in camera*, by subtracting from the "ENH" column either the "Chicago PMSA Control Hospitals," the "Non-Merging Chicago PMSA Control Hospitals," or the "Teaching Chicago Control Hospitals" column.

[43] Haas-Wilson's DID analysis suffers from "omitted variable bias." This problem occurs when a regression omits a relevant explanatory variable. *See* WILLIAM H. GREENE, ECONOMETRIC ANALYSIS 334-37 (4th ed. 2000). Her subsequent regressions demonstrated that the variables she omitted were relevant.

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*. She used four different measures of patient mix, which she regarded as a specification test. TR 2622-23 (Haas-Wilson), *in camera*.[45] She ran the regressions separately for the payor data and the Illinois data. TR 2621-22 (Haas-Wilson), *in camera*.

Tellingly, Haas-Wilson's regressions for the payor data indicated that ENH's actual post-merger average net prices, at varying levels of statistical significance, were higher than her 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 ranges reflect Haas-Wilson's 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. CX 6279 at 18, *in camera*.

Haas-Wilson found similarly higher-than-predicted increases in ENH's average net price using the Illinois data for all three categories of patients: all patients (13.2% to 17%, depending on the control group and measure of resource intensity); commercial and self-pay patients (11.1% to 17.0%, depending on the control group and measure of resource intensity); and commercial, self-pay, self-administered, and HMO patients (11.9% to 17.9%, depending on the control group and measure of resource intensity). These results were statistically significant at the one percent level. *Id.* at 20, *in camera*.

d. Learning-About-Demand/Changes in Quality

Haas-Wilson did not formulate empirical tests to evaluate respondent's position that Evanston's learning about market demand from Highland Park's pricing data and improvements to Highland Park (factors four and nine) were responsible for the substantially higher-than-predicted merger-coincident price increases. TR 2586 (Haas-Wilson), *in camera*. She testified correctly that devising an econometric model to test for the learning-about-demand hypothesis is very difficult. TR 2643-44 (Haas-Wilson), *in camera*. Haas-Wilson rejected respondent's learning-about-demand argument and respondent's argument about improvements to Highland Park based on other portions of the record. TR 2586-88, 2645-48, 2698-2732 (Haas-Wilson), *in camera*; DX 7046, *in camera*; DX 7047, *in camera*; DX 7057, *in camera*; DX 7058, *in camera*;

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[44] Haas-Wilson's exclusive use of *per case* prices for her regression model (rather than *per day* prices) can be inferred by referencing CX 6279 at 19, *in camera*, and CX 6282 at 6, *in camera*.

[45] Again, Haas-Wilson used four different measures of patient mix: APRDRGs, APRDRGs with a "length of stay" variable, DRG weights, and DRG weights with a "length of stay" variable. TR 2622-23 (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 appropriate given that complaint counsel had alleged that the relevant market involved the entire managed care market. TR 4648 (Baker), *in camera*.

a. Simple Price Change Statistic

To calculate the simple price change statistic, Baker used two different measures of price: (a) "ENH constructed," which was used to examine price increases across Evanston, Glenbrook, and Highland Park Hospitals taken together; and (b) "ENH," which was used to examine price increases only at Evanston and Glenbrook Hospitals but not Highland Park Hospital. TR 4633 (Baker), *in camera*; DX 7068 at 10-11, ¶26, *in camera*.

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[46] No data were available on the case mix of outpatient cases. Baker and Noether dealt with this issue by assuming that the case mix changes for both inpatient and outpatient cases were identical. TR 4642-43 (Baker), *in camera*.

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*.

DX 7068 at 43, *in camera*. With the "ENH" measure, the average net ENH price increase for all four payors was 12% above that of the control group.[49]

Again, Baker did not report the statistical significance of any of these differences. Presumably, if the increases were *not* statistically significant, Baker would have had an incentive to disclose that information. Regardless, Baker's DID results, like Haas-Wilson's, are not particularly informative because (1) they do not account for the substantial changes that Haas-Wilson found in case mix, patient mix, customer mix, and teaching intensity between ENH and other hospitals and, (2) as explained below, his DID results differed substantially from his linear regression results.

c. Linear Regression Analysis

The third step in Baker's analysis is probative. As with Haas-Wilson, Baker's third step was a regression model, which he used to control for changes in cost, demand, and regulation common to both ENH and hospitals in his control group. Because Baker was unable to adjust for variations in outpatient cases, he included only inpatient cases in his regression analysis. TR 4642 (Baker), *in camera*; DX 7068 at 15, *in camera*. Baker also used his regression to control for a range of variables that could affect price, including a patient's age, gender, length of stay, type of health care plan, and hospital. DX 7068 at 16, ¶ 38, *in camera*.[50] To control for changes in case mix, Baker estimated his model separately for each DRG and for each payor. *Id.*, *in camera*.[51] Baker then calculated a weighted average ENH net price change over all the DRGs. *Id.* at 17, ¶ 39, *in camera*. Significantly, from this regression model, Baker concluded that, relative to the control group, ENH's inpatient average net prices increased by 9% or 10% more than the predicted level, depending on whether obstetrics cases were included. *Id.* at 19-20, ¶ 43, *in camera*; RX 2040 at 3, *in camera*; DX 7068 at 45, *in camera*. For inpatient and outpatient cases combined, Baker found that average net prices increased by higher-than-predicted levels of 11% or 12%. TR 4602-03 (Baker); DX 7068 at 21, *in camera*. As before, Baker did not report statistical significance, which is very unusual for regression results. One can presume again that Baker's results were statistically significant because, if the results were insignificant, Baker would have had a strong incentive to report this.

3. Summary and Findings of Fact Concerning the Econometrics

We find that the econometric work of both Haas-Wilson and Baker supports our finding that the higher-than-predicted merger-coincident increases in ENH's prices reflect the exercise of

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[49] The corresponding *per case* ENH average net price increases above the control group, omitting obstetrics, were: Aetna (23%); Humana (59%); United (96%); and a decrease of 5% for BCBS. The corresponding combined price increase for all four payors was 21% above that of the control group. RX 2040 at 2, *in camera*; DX 7068 at 44, *in camera*.

[50] Differing slightly from his earlier work, Baker used the natural logarithm of prices, rather than the prices themselves, as the dependent variable. RX 2040 at 3, *in camera*; DX 7068 at 45, *in camera*.

[51] Haas-Wilson used different specifications to control for changes in case mix. Presumably she could have used an identical specification but chose not to.

market power caused by the merger. The economic testimony is marked by both agreement and disagreement over the correct way to estimate the price changes associated with the merger, but significantly for purposes of resolving this case, the results of the analyses differed very little.[52] Every empirical analysis conducted by Haas-Wilson and Baker found higher-than-predicted merger-coincident increases in ENH's average net price for Humana and United. All but one of the empirical analyses conducted by Haas-Wilson and Baker found higher-than-predicted merger-coincident increases in ENH's average net price for Aetna. Nearly every empirical test found little or no unexplained merger-coincident average net price increase for BCBS.

In addition, Haas-Wilson's calculation of average market-wide changes in net price for all payors and Baker's calculation of the average net price increase for Aetna, BCBS, Humana, and United, produced very similar results. As we discuss in our findings about respondent's "learning-about-demand" argument, only when Baker used a particularly contrived and narrow control group of six academic hospitals was he able to account for the merger-coincident price increases.

Haas-Wilson's work demonstrated that Aetna, Humana, United, and Great West likely experienced higher-than-predicted price increases as a result of the merger, while BCBS did not. TR 2501, 2540 (Haas-Wilson), *in camera*. Using the payor data, the magnitude of the estimated average net price increase beyond that of the control groups ranged from 12.3% to 93.2%, depending on the payor and the control group used for the regression. CX 6279 at 18-19, *in camera*. Using the Illinois data, Haas-Wilson estimated that the merger caused market-wide average net price increases of 11% to 18%. *Id.* at 20, *in camera*.

Baker obtained very similar results. Again, Baker calculated that, relative to his control groups, average net inpatient prices across the four MCOs that he examined increased by 9% or 10% more than the predicted level due to the merger. TR 4620, 4645-46 (Baker), *in camera*; RX 2040 at 3, *in camera*; DX 7068 at 21, ¶ 47, *in camera*.

Respondent briefly maintains that the Commission cannot rely on the econometrics because they were based on "imperfect" data. RB 50. Data inevitably have some flaws, and Haas-Wilson acknowledged that the data were not perfect. TR 2496-500 (Haas-Wilson). The question is whether the data are sufficiently reliable that they are suitable for analysis. Both Haas-Wilson and Baker relied heavily on the payor data, and the record indicates that this reliance was sensible because the data were comprehensive enough to permit sound analyses. The data contained information from many (if not all) of the acute care hospitals in the Chicago metropolitan area from 1998 to 2002, and included data from more than 70% of ENH's MCO patients on a *per case* basis in 2002. *See* CX 6279 at 5, *in camera*. Further, Baker obviously felt sufficiently confident about the data to use them for most of his econometric analysis. The fact that Haas-Wilson obtained similar results from her regressions using the Illinois data also

[52] There are essentially four different regression analyses: Haas-Wilson's regressions using the Illinois Data, Haas-Wilson's regressions using the payor data, Baker's regressions using the payor data, and Baker's learning-about-demand regressions, described *infra* 43-45, which also relied on the payor data.

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.

We also reject respondent's argument that Haas-Wilson did not account for every possible factor that might explain ENH's substantially higher-than-predicted merger-coincident price increases, such as increases in marketing or advertising. RB 57. Rarely is it possible to consider every imaginable factor that might cause a price increase, and that is not necessary to have confidence in the results of econometric analysis. The issue is whether Haas-Wilson (and Baker) took into account the factors that were reasonably likely to have caused the substantial post-merger price increases. We find that both of them ruled out those other factors with econometric analysis. Further, as we describe below, the parties' documents and the balance of the record indicate that it is very unlikely that the higher-than-predicted portions of the price increases were due to other competitively-benign causes.

It is true that neither Haas-Wilson nor Baker provided the Commission with their exact econometric model, and Haas-Wilson did not provide a full explanation of how she calculated prices from the Illinois data. If the results of the regressions were more mixed, this lack of detail might make us less confident about their reliability. However, except for our rejection of a portion of the results obtained from Baker's narrow "learning-about-demand" six-hospital control group (discussed below), we need not pick and choose among the economists' various regressions, or the data sources, because they all produced essentially the same result: there were substantial higher-than-predicted merger-coincident average net price increases, and it is likely that a significant portion of these increases did not result from the most likely competitively-benign causes. The consistent results of such a wide range of tests utilized by both sides' experts, combined with our other findings of fact, warrant our finding that it is very likely that the unexplained portions of the merger-coincident price increases were due to ENH's exercising market power created by the merger.

M. Learning-About-Demand

Respondent vigorously maintains that ENH's post-merger increases in the prices for Evanston Hospital were caused by ENH's obtaining information about Highland Park's prices during the due diligence process, rather than the exercise of market power. RB 47-59. This information allegedly showed ENH that some of Evanston's pre-merger prices were below those charged by Highland Park. RB 18, 47-59. Respondent argues that because Evanston offered more "comprehensive and advanced" services than Highland Park, and because more advanced hospitals allegedly receive higher prices, Evanston concluded that its pre-merger prices were below competitive rates. RB 51. If Evanston had been charging competitive prices, respondent reasons, its pre-merger prices would have exceeded those charged by Highland Park. RB 50-51.

As we discuss in our legal analysis, respondent does not cite any case in which a party has argued that its price increases are an attempt to correct a systematic failure to charge competitive prices, and our research has not produced any such authorities. As we also discuss, we need not resolve all of the doctrinal issues associated with respondent's argument because none of the four types of evidence offered by respondent to support the learning-about-demand position indicates that Evanston was systematically charging below-competitive prices to MCOs

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]

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increased negotiating pressure. RB 49 (citing RFF ¶¶ 106, 110, 624, 630-33, 637). These events were not unique to respondent; they affected many hospitals, including Highland Park. Respondent asserts in its proposed findings of fact that Highland Park also felt the impact of the Balanced Budget Act, RFF ¶ 632, and Neaman testified that Balanced Budget Act cuts had hurt Highland Park's financial performance, TR 1137 (Neaman), *in camera*. Respondent does claim that the Balanced Budget Act hit hospitals like Evanston harder because it had more clinical lines of service and teaching programs. RB 16. Respondent, however, cites only a few lines of conclusory testimony in support of this assertion. RFF ¶¶ 628-29.

[54] There is also an overall lack of merit to respondent's contention that some of the MCO witnesses supported its learning-about-demand argument because they agreed that some of their contracts with Evanston were outdated. As the ALJ correctly found, these witnesses also testified that they thought that ENH's post-merger price increases far exceeded reasonable market price benchmarks. ID 172; IDF ¶¶ 392-456.

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 were Alexian Brothers Medical Center, Northwest Community Hospital, and St. Francis Medical Center. TR 6168, 6170-72 (Noether); RX 1912 at 26, 148-49, 151-52, *in camera*.[57]

Even assuming that Baker's and Noether's narrow academic control group was valid (which it is not), Baker's regressions still partially undermine respondent's argument because he computed that Evanston's post-merger prices to both Humana and United were significantly higher than he predicted they would have been without the merger. TR 4682-85 (Baker), *in camera*; RX 2040 at 4, *in camera*; DX 7068 at 46, *in camera*. For Humana, Baker computed that in 2002 the net prices ENH charged were 21% higher than he predicted they would have been had the merger not occurred. RX 2040 at 4, *in camera*; DX 7068 at 46, *in camera*. For United, the net prices ENH charged in 2002 and 2003 were higher by 35% and 29%, respectively. RX

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[56] Moreover, three MCO witnesses testified that Evanston was not an academic hospital. TR 621 (Neary); TR 1444 (Dorsey); TR 936 (Foucre). We find this testimony to be credible. Further, none of the Bain documents upon which respondent relies so heavily, *infra* 46-47, references these very high-end academic hospitals as the appropriate benchmark for Evanston's prices. TR 2052-58 (Hillebrand).

[57] Noether also excluded from her academic control group a number of hospitals that she listed as "best practice competitors" in her expert report, including Hinsdale Hospital, Christ Hospital, and MacNeil Hospital. TR 6152 (Noether); DX 7126 at 50. Conversely, Noether included in the academic control group Loyola University Medical Center and Rush-Presbyterian-St. Luke's Medical Center, which are not listed in the documents that she relied on in her report to identify Evanston's competitors. TR 6153-54 (Noether).

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 clear whether respondent is correct that Evanston's theoretical, equilibrium price was systematically higher than Highland Park's, particularly for the primary and secondary services that both hospitals provided. Highland Park is located in the wealthiest part of the North Shore suburbs. TR 320-21 (Newton). Several of the MCOs explained that it was important to include Highland Park in their networks because many high-level officials who selected their company's health plans lived in Highland Park and wanted access to the local hospital. As One Health's Neary explained:

> [I]n my opinion, . . . Highland Park knew that they had these influential people who were living in their community who would not be satisfied with a network that didn't have Highland Park in their . . . healthcare plan. So, Highland Park had that as basically negotiating leverage, and they were able to say that these folks want us in their network, so you need to contract with us at higher rates.

TR 605-06 (Neary). Given the MCOs' desire to satisfy major corporate decision-makers, some MCOs may have been willing to pay Highland Park higher rates than they would pay to Evanston.

Assuming that Evanston's theoretical, equilibrium price was greater than Highland Park's price, respondent's pricing evidence that purported to show that Evanston's pre-merger prices were often below Highland Park's prices is not persuasive. Noether compared Evanston's and Highland Park's 1999 *per diem* rates for a number of payors at a number of different hospitals. RX 1912 at 34, *in camera*. The results showed that Highland Park's prices were higher than Evanston's for all the payors except BCBS and Unicare. TR 6079, 6088 (Noether). Noether's

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[58] 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*; or DX 7068 at 46 (Table 4), *in camera*. The calculations are the following: Humana in 2002 – 21% = ($9,683 - $7,993)/$7,993; United in 2002 – 35% = ($10,373 - $7,708)/$7,708; United in 2003 – 29% = ($11,479 - $8,906)/$8,906. RX 2040 at 4, *in camera*; DX 7068 at 46 (Table 4), *in camera*.

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 Highland Park's pre-merger contracts. RX 684 at 6. As the ALJ correctly found, the actual revenues received by a hospital are a function of both the discount rate in the contract and the hospital's chargemaster. IDF ¶ 789-93; ID 173. A hospital with a higher chargemaster can have a lower discount rate and still charge higher prices. IDF ¶ 789-93; ID 173. Further, even the Bain documents that purport to compare Evanston's and Highland Park's contracts on an

"adjusted" basis do not identify with precision the methodology that Bain used to make this determination. RX 1995 at 8, *in camera*. Therefore, the pre-merger pricing analyses that Bain performed shed relatively little light on respondent's learning-about-demand position. *Id.*

Finally, respondent cites Terry Chan's assessment about the relationship between Evanston's and Highland Park's prices before the merger. As the Highland Park employee tasked with analyzing the two hospitals' prices shortly before the merger, Chan authored a September 24, 1999 memo that stated that Highland Park's contract rates "seem[ed] to be higher" than those charged by Evanston, but she acknowledged that her analysis did not include "information on [Evanston's] charges and case mix." TR 715 (Chan); RX 620 at 1, *in camera*. Chan also qualified her subsequent assessment that if Highland Park had applied the rates contained in Evanston's contract rates in the previous year, Highland Park would have earned approximately $5 million less in inpatient revenue and $8 million less in outpatient revenue, RX 625 at 8294; RX 674 at 17915, with the caveat that "[f]uture environments under [Evanston's] pricing structure and case mix might yield different results." RX 674 at 17915. Chan noted in other memos that the "gross" rates in Evanston's chargemaster were expected to be higher than those in the chargemaster used by Highland Park, RX 663 at 016939, *in camera*, and that "ENH's charge master . . . is expected to generate higher gross charges than [the] gross charges generated by Highland Park Hospital's current chargemaster." CX 1373 at 14, *in camera*. These observations suggest that the net prices charged by Evanston may have been higher than those for Highland Park.

4. Comparison of Evanston's Prices and Other Hospitals' Prices

Finally, Noether attempted to validate ENH's learning-about-demand argument by comparing Evanston's average pre- and post-merger price levels with the average prices of groups of what she termed "community" and "academic" hospitals. TR 5993 (Noether). Her premise was that if Evanston had learned that its prices were low coincident with the merger, she would expect Evanston's price to move from the average community hospital price to the average academic hospital price. TR 6060 (Noether), *in camera*. Noether reported her results using graphical plots of prices. RX 1912 at 62-75, 108-52, *in camera*. In Noether's graphs, ENH's price appeared to move closer to the academic average price for a number of payors, but not all payors.

Noether's price comparisons are unreliable, however, because they use the flawed academic control group. Further, even assuming that the control group is reasonable (which it is not) and that Noether's calculations are correct, standing alone they do not support respondent's learning-about-demand position because they are equally consistent with the post-merger exercise of market power by ENH.

5. Summary of Findings of Fact on Learning-About-Demand

While no one type of evidence in the record is dispositive, we find that the totality of the record warrants rejecting respondent's position that ENH's learning-about-demand explains the substantially higher-than-predicted merger-coincident price increases.

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 many of the same improvements that ENH credits to the merger. Highland Park planned, for instance, to develop a cardiac surgery program in affiliation with Evanston or another hospital. IDF ¶¶ 952-59. In fact, in early 1999, Highland Park and Evanston entered into an agreement to develop a joint cardiac surgery program at Highland Park, with the understanding that implementation of the program did not depend on a merger. IDF ¶¶ 958-59. This agreement was similar to the affiliation agreements that ENH has with two other community hospitals – Swedish Covenant and Weiss – where it currently runs successful cardiac surgery programs without a merger. IDF ¶ 957; TR 4442-44, 4527-28 (Rosengart). Highland Park planned to improve its interventional cardiology services by expanding the diagnostic capabilities of its existing cardiac catheterization lab and to provide emergent angioplasty with the planned cardiac surgery program. IDF ¶ 964.

Highland Park also had plans to enhance its existing "center for excellence" in oncology by launching a joint comprehensive oncology program with an institution other than Evanston, without a merger. IDF ¶¶ 924-28. In late 1997, Evanston's CEO wrote to Highland Park's CEO:

> Our interest and expertise in developing an oncology program with you, along the same lines as with cardiac surgery, is extremely high. . . . [H]aving the proven track record of already expanding our oncology program at both Glenbrook Hospital and Swedish Covenant Hospital, we believe we have developed a successful model that could rather quickly be implemented at your institution.

CX 1865 at 2. Evanston also considered partnering with organizations other than Highland Park. IDF ¶ 925.

Additionally, Highland Park's strategic plans in 1998 and 1999 identified plans to enhance clinical services in maternal/fetal health, orthopedics, surgical services, and behavioral

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; CX 1908 at 13-14, 18, 20; IDF ¶¶ 869-70. In March 1999, Highland Park's finance committee approved a long-range capital budget of $43 million for investments in strategic initiatives and master plan items such as cardiology services, ambulatory services, oncology, assisted living, and facility expansion, and $65 million for hospital construction, routine capital, and information technology. CX 545 at 3; IDF ¶¶ 872-74.

Prior to the merger, Highland Park already had begun to make a number of the improvements that ENH contends the merger produced. For instance, in early 1998, Highland Park initiated an effort to improve the quality of care provided in its obstetrics and gynecology ("OB/GYN") department by inviting the American College of Obstetricians and Gynecologists ("ACOG") to conduct an on-site review of its birthing center and make recommendations for improvements. Highland Park then undertook a comprehensive effort to implement these recommendations and address the issues that ACOG had identified. IDF ¶¶ 883-86 (citing TR 3152-54 (Romano), *in camera*); TR 389-93 (Newton). Highland Park also began the process of improving its nursing staff by hiring new, more effective nursing leaders and initiating a comprehensive effort to train, retain, and reward its nurses, and to improve communications between nurses and physicians. IDF ¶¶ 908-10; TR 3746-49 (Krasner); TR 5479-80 (Chassin); CX 6265 at 19, 21, *in camera*. Before the merger, Highland Park also undertook an internal review of its quality assurance and quality improvement programs to identify ways to enhance these programs. IDF ¶ 898. The resulting report laid out a number of planned initiatives for improvements, including some of the same types of improvements that ENH asserts were produced by the merger. RX 417.[61]

The record also shows that a number of the changes that ENH made at Highland Park after the merger merely 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 intensivists); IDF ¶ 983 (electronic medical records systems); TR 3840-41 (Silver) (in-house physician coverage in obstetrics departments). Further, since the time of the merger, there has been a growing consensus regarding how best to monitor and improve healthcare quality – measures that Highland Park likely would have incorporated into its quality assurance and quality improvement programs had it not merged with Evanston. TR 2998-99, 3003-04 (Romano). And while respondent criticizes pre-merger Highland Park for not having had an intensivist program or a completely paperless electronic medical records system, ENH's decision to implement these programs at Highland Park was largely influenced by the publication, in 1999 and 2000, of recommendations by the Institute of Medicine and the Leapfrog Group. TR 4065-66 (Wagner);

[61] For example, the report included recommendations that Highland Park consider developing an interdisciplinary steering committee to focus on operations and quality issues; develop a mechanism to improve reporting of adverse events; develop and adopt additional treatment protocols to address co-morbidity and complications; review the quality tracking indicators used by Highland Park and identify critical indicators that ought to be tracked; and improve usage of national benchmarks. RX 417; *see also* CX 99 at 3 (outlining Highland Park's plans, *inter alia*, to develop additional care maps that incorporate national benchmark data).

TR 5079-87 (Ankin). In short, the record does not contain sufficient evidence to conclude that, had it not merged with Evanston, Highland Park could not, or would not, have been responsive to these emerging trends as well.

In this respect, we disagree with the ALJ's decision that ENH's installation of EPIC at Highland Park in late 2003 was a merger-specific quality improvement. Prior to the merger, Highland Park was exploring ways to improve its information technology. CX 94 at 2-3; CX 1908 at 20. Although the ALJ concluded that Highland Park was unlikely, on its own, to have installed EPIC (in part because Highland Park already had an "excellent" electronic medical records system, and because, as a standalone hospital, it would not have had the same need as Evanston to integrate records from three hospitals, ID 190-91), Highland Park likely would have continued to improve its operations by investing in current information technology – if not EPIC, then through other appropriate systems.[62]

We find only one merger-specific improvement: the medical staff integration and affiliation with a teaching hospital. The record shows that ENH physicians in several specialties now rotate through all three hospitals, and that ENH facilitated faculty appointments at Northwestern Medical School for approximately 60 Highland Park physicians, who now participate in teaching activities at Evanston (for example, by giving "didactic lectures" to medical students receiving their training at Evanston). IDF ¶¶ 989-90; TR 3588-90 (Victor). The merger has not, however, transformed Highland Park (which has only one residency program, in family medicine) into a teaching hospital. IDF ¶¶ 988, 992. While studies have apparently shown that teaching hospitals have lower risk-adjusted mortality rates in certain clinical areas, there is no literature that shows that merely being owned by a teaching hospital is associated with improved quality of care. IDF ¶ 993; TR 3121-25 (Romano), *in camera*. ENH's health care quality expert testified that the integration of medical staff and academic affiliation provides Highland Park physicians with greater opportunities to upgrade their skills and keeps them "on their toes." TR 5373-78 (Chassin). But this does not constitute verifiable evidence that any such improvement is of sufficient magnitude to offset the competitive harm that demonstrably has resulted from the merger.

2. Effect of Highland Park Improvements on Demand

Respondent also maintains that some portion of the higher-than-predicted merger-coincident price increases computed by both Haas-Wilson and Baker was caused by increased demand for Highland Park's services due to post-merger improvements, and thus does not reflect the exercise of market power. RB 51, 58-59, 62, 72. We also find that the record does not support this assertion. Just as it is incorrect to conclude that nominal price increases by themselves reflect market power, it is also wrong to assume that nominal increases in quality are likely to lead to greater demand for the improved service. The relevant questions are whether Highland Park's quality improved relative to that of other hospitals, *and*, if so, whether such above-market improvements increased demand for the hospital's services.

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[62] Complaint counsel's health care quality expert testified that there are no barriers other than cost for a community hospital to install EPIC, and some hospitals of similar size to Highland Park have partnered together to share the costs of installing and maintaining the system. TR 3162-63 (Romano), *in camera*.

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 Organizations ("JCAHO") regularly evaluates overall hospital quality nationally, including at Highland Park and Evanston, and JCAHO accreditation is necessary to qualify for Medicare, as well as for most managed care plans. ID 181. JCAHO assigns hospitals scores based on approximately 1200 elements of hospital performance. *Id.* In 1999, Highland Park received a preliminary score of 95 and a final score of 96. *Id.* In 2002, Highland Park received a JCAHO score of 94, a slight decline from 1999. *Id.* Further, as we have already found, a number of the post-merger changes at Highland Park reflect emerging trends in the industry.

A comparison of the rate of Highland Park's improvement to that of other hospitals is not critical, however, because even if the quality of care at Highland Park improved at a faster rate, the record does not support a finding that these improvements increased demand for Highland Park's services. Again, hospital quality is difficult to measure, and demand for the services of one hospital compared to another is the product of a number of factors. Consequently, it does not follow that relative increases in the quality of one hospital always produce rapid increases in demand for that hospital's services.

Here, the record indicates that relative demand for Highland Park's services did not increase during the time period covered by the record. As the ALJ found, the record establishes that at the time that ENH increased its prices, ENH did not mention that its price increases to MCOs were due to improvements at Highland Park. IDF ¶ 840. Hillebrand testified that he did not tell MCOs that the substantial post-merger price increases were a function of improved quality at Highland Park. IDF ¶ 842; ID 178. Similarly, Neaman testified that he never saw any documents correlating the higher prices with the quality changes at Highland Park. IDF ¶ 843; ID 178. Even after ENH implemented changes at Highland Park, ENH never identified any improvements at Highland Park to MCOs (other than in a single press release). IDF ¶ 841-47; ID 178. We agree with the ALJ that if relative quality improvements were what drove ENH's substantial post-merger price increases, logic suggests that ENH at least would have informed some MCOs on an individual basis about the improvements. ID 178.

Such communications never occurred. The MCO representatives testified that the topic of quality improvements at Highland Park never came up during contract negotiations. IDF ¶¶ 844-47; ID 178. The MCOs also testified that they were not aware of a significant increase in quality at Highland Park after the merger. IDF ¶¶ 846-47, 851; ID 181. Additionally, many of the price increases were instituted in 2000, before some of the improvements were made. IDF ¶¶ 911, 916, 966, 981.

In short, we find that the record does not support the conclusion that Highland Park's higher-than-predicted merger-coincident price increases were due to increased demand for Highland Park's services relative to those offered by other hospitals. Rather, as the ALJ found, "the totality of the evidence strongly suggests that Respondent's quality-of-care argument is a

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.3d 708, 713 (D.C. Cir. 2001) (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 323 (1962)). "Ephemeral possibilities" of anticompetitive effects, however, are not sufficient. *United States v. Marine Bancorp., Inc.*, 418 U.S. 602, 623 (1974).

Merger enforcement is directed at market power. *Heinz Co.*, 246 F.3d at 713; Merger Guidelines § 0.1 ("[M]ergers should not be permitted to create or enhance market power or to facilitate its exercise."). The courts analyze whether a merger will produce or increase market power through the use of the now-familiar sequential approach. The plaintiff first establishes the relevant market, which itself consists of the relevant product and geographic markets. *See United States v. Baker Hughes Inc.*, 908 F.2d 981, 982-83 (D.C. Cir. 1990). Typically, the next step is to assess whether the transaction would produce a significant increase in concentration in the relevant market. *Id.* If the plaintiff makes such a showing, there is a structural "presumption" that the merger will substantially lessen competition. *See Heinz*, 246 F.3d at 715; *Baker Hughes*, 908 F.2d at 982-83. The burden of production then shifts to the defendant to produce evidence that shows that the market share statistics do not reflect the merger's probable effects on competition. *See Baker Hughes*, 908 F.2d at 982-83. If the defendant successfully rebuts the structural presumption of illegality, "the burden of producing additional evidence of anticompetitive effect shifts to the government, and merges with the [government's] ultimate burden of persuasion." *Id.*

In practice, courts apply the burden-shifting paradigm by defining the relevant market, and then determining "the transaction's probable effect on competition in the product and geographic markets." *United States v. Sungard Data Sys., Inc.*, 172 F. Supp. 2d 172, 181 (D.D.C. 2001); *see also Marine Bancorp., Inc.*, 418 U.S. at 618-23. In addition to examining evidence of existing competition between the merging parties and other firms, an integral part of the competitive effects analysis is determining whether new entry or expansion is likely to offset any reduction in competition between the merging firms. *See FTC v. Cardinal Health, Inc.*, 12 F. Supp. 2d 34, 58 (D.D.C. 1998) (citing Merger Guidelines § 3.0); *FTC v. Staples, Inc.*, 970 F. Supp. 1066, 1086 (D.D.C. 1997).

If a court finds that a transaction is likely to produce a substantial reduction in competition that will not be averted by entry, courts generally consider whether efficiencies are likely to offset the reduction in competition. Although the Supreme Court held in *FTC v. Procter & Gamble Co.*, 386 U.S. 568, 579 (1967), that "[p]ossible economies cannot be used as a defense to illegality," subsequent lower court decisions have stated that "whether an acquisition

would yield significant efficiencies in the relevant market is an important consideration in predicting whether the acquisition would substantially lessen competition." *FTC v. University Health, Inc.*, 938 F.2d 1206, 1222 (11th Cir. 1991); *see also Cardinal Health*, 12 F. Supp. 2d at 61. In *University Health*, 938 F.2d at 1223, the Eleventh Circuit held that a defendant could potentially overcome a "presumption that a proposed acquisition would substantially lessen competition [by] . . . demonstrat[ing] that the intended acquisition would result in significant economies and that these economies ultimately would benefit competition and, hence, consumers." The Merger Guidelines also recognize the role of efficiencies in determining the competitive effects of a transaction, stating that "[e]fficiencies generated through merger 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.

Although the courts discuss merger analysis as a step-by-step process, the steps are, in reality, interrelated factors, each designed to enable the fact-finder to determine whether a transaction is likely to create or enhance existing market power. *See Baker Hughes*, 908 F.2d at 984 (Section 7 inquiry is of a "comprehensive nature"). In the recently published *Commentary on the Horizontal Merger Guidelines* ("*Merger Guidelines Commentary*"), the Federal Trade Commission and the Department of Justice's Antitrust Division emphasized "that the Agencies apply [] an integrated approach to merger review . . . [rather than] a linear, step-by-step progression that invariably starts with market definition and ends with efficiencies or failing assets."[63]

Count I of the complaint alleges that the merger violated Section 7 of the Clayton Act in specified relevant product and geographic markets. Count II does not allege a particular relevant market; instead it alleges that the transaction violated the Clayton Act because the merger enabled ENH to raise its prices to private payors above the prices that the hospitals would have charged absent the merger. Under this count, complaint counsel maintains that it is not necessary to prove the relevant market because direct effects evidence shows that the transaction reduced competition substantially. CB 5. We first determine whether the record establishes that the transaction reduced competition substantially within a relevant antitrust market under Count I and then address complaint counsel's thesis that it is possible to establish liability under Section 7 solely through the analysis of direct effects evidence under Count II.

B. Defining the Relevant Market

1. Relevant Product Market

The "boundaries of a product market are determined by the reasonable interchangeability of use [by consumers] or the cross-elasticity of demand between the product itself and substitutes for it." *Brown Shoe*, 370 U.S. at 325; *see also United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956). "Interchangeability of use and cross-elasticity of demand look to [1] the availability of products that are similar in character or use to the product in question and [2] the degree to which buyers are willing to substitute those similar products for the product."

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[63] Federal Trade Comm'n & U.S. Dep't of Justice, *Commentary on the Horizontal Merger Guidelines* 2 (2006), *available at* http://www.ftc.gov/os/2006/03/CommentaryontheHorizontalMergerGuidelinesMarch2006.pdf.

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* II PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW ¶¶ 530a, 536, at 180-82 (2d ed. 2002).[64]

Complaint counsel asserts that the relevant product market is "general acute care hospital services, including primary, secondary, and tertiary services, sold to MCOs." CB 37. Respondent argues, although not very strenuously, that the product market also includes "hospital-based" outpatient services because MCOs purchase both inpatient and outpatient services from hospitals. RB 26-27 & n.3. Respondent does not include non-hospital-based outpatient services in its relevant product market. *Id.*

The ALJ held that the record established that the relevant product market is that for acute inpatient hospital services, and we agree. ID 132-34. Current and former Evanston and Highland Park executives testified that ENH set inpatient rates independently of its outpatient rates and without concern that patients would switch to outpatient services. IDF ¶ 209; TR 330-31 (Newton); TR 1210-11 (Neaman). ENH's Hillebrand testified that he believed that inpatient hospital prices do not alter customer decisions to seek outpatient services because the physician

[64] *See generally* Gregory J. Werden, *The 1982 Merger Guidelines and the Ascent of the Hypothetical Monopolist Paradigm*, 71 ANTITRUST L.J. 253 (2003).

makes that determination. TR 1755-56 (Hillebrand). Such pricing independence is strong evidence that the two sets of services are not in the same market because it suggests that there is a low cross-elasticity of demand between inpatient and outpatient services. *Cf. United States v. Archer-Daniels-Midland Co.*, 866 F.2d 242, 248 (8th Cir. 1988) (finding that sugar and high-fructose corn syrup not in the same product market in the absence of "evidence . . . demonstrating a high cross-elasticity of demand" between them).

Additionally, Noether testified that inpatient and outpatient services are not substitutes for patients and that MCOs cannot offer their patients outpatient services as a substitute for inpatient services when the patients need inpatient services. TR 6194 (Noether). Finally, the MCO witnesses who testified on the issue also stated that they could not, as a practical matter, substitute inpatient for outpatient services. TR 1422-23 (Holt-Darcy); TR 538-39, *in camera* (Mendonsa); TR 591-92, 594-95 (Neary).[65]

Respondent's position that outpatient services are in the market is also inconsistent with all modern hospital merger cases. The courts have held repeatedly that acute inpatient hospital services are a "cluster of services" that constitute a relevant product market. *See, e.g.*, *FTC v. Freeman Hosp.*, 69 F.3d 260, 268 (8th Cir. 1995); *University Health*, 938 F.2d at 1211-12; *United States v. Rockford Mem'l Corp*, 898 F.2d 1278, 1284 (7th Cir. 1990); *United States v. Long Island Jewish Med. Ctr.*, 983 F. Supp. 121, 138-40 (E.D.N.Y. 1997); *FTC v. Butterworth Health Corp.*, 946 F. Supp. 1285, 1290-91 (W.D. Mich. 1996). The rationale is that while "the treatments offered to patients within this cluster of services are not substitutes for one another . . . the services and resources that hospitals provide tend to be similar across a wide range of primary, secondary, and tertiary inpatient services." *California v. Sutter Health Sys.*, 130 F. Supp. 2d 1109, 1119 (N.D. Cal. 2001). The record does not support our departing from this long line of cases.

Respondent argues incorrectly that complaint counsel's "focus on MCOs as the consumers" warrants including hospital-based outpatient services in the market because MCOs simultaneously negotiate with hospitals for both inpatient and outpatient services. As the Seventh Circuit explained in *Rockford Mem'l*, the fact that a customer purchases two sets of services from a supplier does not automatically lead to the conclusion that the two products are substitutes, or that one acts as a competitive constraint on the other. 898 F.2d at 1284.[66]

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[65] Our descriptions of the testimony from Neaman, Hillebrand, Noether, Holt-Darcy, Mendonsa, and Neary are part of the Commission's findings of fact. We did not include them in our findings of fact in Part IV only for ease of presentation.

[66] One could argue that there is no more substitutability between different types of inpatient services (*e.g.*, a tonsillectomy and a heart transplant) then there is between inpatient and outpatient services, and that would certainly be correct. However, this does not justify including hospital-based outpatient services in the relevant product market, as respondent proposes. The record is not clear on the issue, but it is very likely that there are some types of outpatient services for which hospitals compete only with other hospitals, and other types of outpatient services for which hospitals compete with both hospitals and non-hospital providers. Respondent appears to agree because it limited the types of outpatient services that it included in its proposed product market to those provided by hospitals. RB 26-27 & n.3. If it were feasible to isolate the outpatient services that only hospitals provide, then it *might* make sense to define a

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 relevant market based on analysis of post-merger price increases as "circular" and a "tautology." RRB 48-49. As we explain, defining markets based on such pricing evidence does not reflect a flawed circular analysis, but rather the fundamental relationship between market definition and competitive effects analysis in unilateral effects cases involving differentiated product markets. Complaint counsel, while alleging a geographic market, maintains that it is not necessary to define the relevant geographic market because, here, it is possible to show through direct evidence that the merger enabled ENH to exercise market power unilaterally. This argument, too, implicitly derives from the connection between market definition and competitive effects analysis in unilateral effects cases that involve differentiated products. To explain, we turn to discussing unilateral effects analysis.

[68] We also find infirm the ALJ's reliance on a portion of a survey conducted by Lake Forest Hospital about consumers' willingness to travel for various types of hospital services, ID 142-43, because it is not possible to evaluate with confidence the survey's reliability from the document alone.

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 by the firms in a market, such as coordination on levels of price or output. *See* Merger Guidelines § 2.1. Generally, coordination is more likely in markets with homogeneous products because it is easier for competitors to reach agreement on the terms of coordination and to detect or punish deviations from those terms. *See id.* § 2.11. Determining that a merger has enabled the merged firm to raise prices does not necessarily aid in defining the relevant market in a coordinated effects case because the fact of the price increase may not readily enable the identification of the rivals in the market with which the merged firm is coordinating.

Unilateral effects are different. They result when a merger leads to higher prices due to the loss of competition between the two merging firms, independent of the action of other firms in the market. *See United States v. Oracle Corp.*, 331 F. Supp. 2d 1098, 1113 (N.D. Cal. 2004); Merger Guidelines § 2.2. There are a number of different types of unilateral effects.[69] Both complaint counsel and respondent agree that the type of unilateral effect that is relevant here is a reduction in competition in a differentiated product market, meaning that the products under examination are not perfect substitutes for one another. *See generally* Merger Guidelines § 2.21.

A merger between firms in a differentiated product market can enable the merged firm to raise prices unilaterally if customers accounting for "a significant share of sales" view the merging parties as their first and second choices for a particular need. *Id.* As the agencies explained in the Merger Guidelines, anticompetitive unilateral effects occur when a sufficient amount of the sales loss due to a post-merger price increase is diverted to the product of the merger partner to make the price increase profitable. *Id.* Thus, whether a firm can profitably increase its prices unilaterally after a merger depends in part on the degree to which customers switch to the product of the other merged firm, as opposed to switching to products of third-party firms. *See id.* § 2.21. The likelihood of unilateral effects in differentiated product markets also depends on the degree to which non-merging firms will "reposition" their products post-merger to make them closer substitutes to those of the merging parties. *Id.* Unilateral effects are less likely if other firms can quickly redesign or reformulate their products after a merger. *See id.*[70]

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[69] The Areeda treatise classifies unilateral effects into four different types: "(a) creating a monopoly or dominant firm; (b) perpetuating a monopoly or dominant firm by eliminating a nascent rival; (c) giving one firm more secure control of its 'niche' in a product-differentiated market; or (d) strengthening a firm's power to make noncompetitive bids that buyers will be unable to refuse." IV PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW ¶ 910, at 55-56 (2d ed. 2006).

[70] Thus, the Merger Guidelines provide that substantial unilateral price elevation in a market for differentiated products requires that there "[1] be a significant share of sales in the market accounted for by consumers who regard the products of the merging firms as their first and second choices, and [2] that repositioning of the non-parties' product lines to replace the localized competition lost through the merger be unlikely." Merger Guidelines § 2.21. The leading treatise contains a similar description of the factors relevant to assessing the likelihood of unilateral effects:

The portion of sales that constitute "a significant share of sales" (and the number of customers that produce such sales) varies by market, and is a function of the relative closeness of the merging parties' products or services, versus those of other competitors, and the relative margins of the merging firms. *See* IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 914a, at 67; *id.* ¶ 914h, at 80-83; Merger Guidelines § 2.21. Notably, it is not necessary for the merged firms to be the closest substitutes for all customers, or even a majority of customers. IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 914h, at 82. Instead, what matters is that customers purchase enough of the merged firm's products after a post-merger price increase to make the increase profitable. *See id.*; *see also Merger Guidelines Commentary* 27 ("A merger may produce significant unilateral effects even though a large majority of the substitution away from each merging product goes to non-merging products.").[71]

Because the focus of the analysis is on the unilateral loss of "localized" competition between the merging parties, there are substantial factual and analytical overlaps between the market definition process and competitive effects analysis in unilateral effects cases. Again, a market is the smallest possible group of competing products (or geographic area) over which a hypothetical monopolist that sells those products (or competes in that area) could profitably impose a SSNIP. Merger Guidelines §§ 1.11, 1.21. Thus, if a merger enables the combined firm unilaterally to raise prices by a SSNIP for a non-transitory period due to the loss of competition between the merging parties, the merger plainly is anticompetitive, and the merging firms comprise a relevant antitrust market because the merged entity is considered to be a "monopolist" under the Guidelines. As the authors of the leading treatise explain:

> In cases where a merger facilitates a significant "unilateral" price increase for a grouping of sales that was not a distinctive-looking market prior to the merger, the appropriate conclusion is that the merger has facilitated the emergence of a new grouping of sales capable of being classified as a relevant market. *This formulation meets the statutory requirement that the effect of a merger is anticompetitive in some "line of commerce" and in some "section of the country.*"

> The degree to which a merger in a product-differentiated market might facilitate a unilateral price increase depends on (1) the relative "closeness" in product space of the merging firms to one another; (2) the relative distance between the post-merger firm's product offering and the offerings of others in the market; and (3) the relative inability of other firms to redesign their products to make them close to the output of the merging firms.

IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 914a, at 67.

[71] *See also* Jonathan B. Baker & Carl Shapiro, *Reinvigorating Horizontal Merger Enforcement* 10 (June 2007), *available at* http://faculty.haas.berkeley.edu/shapiro/mergerpolicy.pdf ("[U]nilateral effects will arise so long as some customers of one of the merging firms consider its merger partner's product as their second choice, even if more of the firm's customers consider a third firm's products to be their second choice.").

IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 913b, at 64 (emphasis added);[72] *see also* Gregory J. Werden, *Simulating the Effects of Differentiated Product Mergers: A Practical Alternative to Structural Merger Policy*, 5 GEORGE MASON L. REV. 363, 384 & n.97 (1997) ("If the products of the merging firms are next-closest substitutes for each other and the [merger] simulations predict price increases of at least 5%, then the Horizontal Merger Guidelines would support a market consisting of just the merging firms.").[73]

The district court's analysis in *Staples* is instructive. The district court determined that office "superstores" constituted a relevant antitrust product market, relying heavily on its finding that Staples' and Office Depot's pricing was disciplined more by the presence of other superstores than by that of office supply stores generally. *Staples*, 970 F. Supp. at 1075-76, 1078. Staples' prices were 13% lower in geographic markets where it competed with Office Depot and OfficeMax than in markets where it did not face superstore competition.[74] *Id.* at 1075-76.

When the court turned to the competitive effects analysis, it looked at the same pricing evidence that it relied on to define the product market, explaining that "[m]uch of the evidence

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[72] The authors make the same point in the section of the treatise that discusses the criteria for identifying the likelihood that a merger will produce a unilateral price increase: "To the extent that . . . a merger enables the post-merger firm profitably to assess a significant price increase without losing sales to other firms, we would say that the merger facilitates the emergence of a new grouping of sales, or relevant market, in which the merging firms have either a monopoly or else a dominant share." IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 914f, at 77.

[73] Respondent suggests that the government must show that the combined firm will have a dominant or monopoly share of the relevant market to establish that a merger is likely to cause anticompetitive unilateral effects in a differentiated product market. RB 37-38. This argument is incorrect, regardless of whether markets are defined through the Merger Guidelines' approach, or by making general assessments about the functional substitutability of products or services. As Professor Baker explains:

> *[S]mall increases in concentration* can generate higher prices in the localized competition model of mergers among sellers of differentiated products . . . . The reason: *two brands may be close substitutes even if both have low market shares.*

Jonathan B. Baker, *Unilateral Competitive Effects Theories in Merger Analysis*, 11 ANTITRUST 21, 25 (1997) (emphasis added). Professor Baker made the same point in an article that he recently co-authored with Professor Carl Shapiro: the notion that "a plaintiff must demonstrate that the merging parties would enjoy a post-merger monopoly or dominant position [to raise prices unilaterally] . . . is incorrect and constitutes a clear error in economic reasoning." Baker & Shapiro, *supra* note 71, at 10 (citations and quotations omitted); *see also* Gregory J. Werden, *Simulating Unilateral Effects from Differentiated Markets*, 11 ANTITRUST 27 (1997) (". . . [C]ourts often delineate very broad relevant markets, yielding small market shares. But shares of these broad markets do not indicate what really matters – how often consumers of the product(s) of either merging firm view a product of the other merging firm as their next-best substitute, and how close other substitutes are in such cases.").

[74] The data also showed that Office Depot's prices were more than 5% higher in markets where it did not face superstore competition than in the markets where Office Depot competed with other superstores. *Staples*, 970 F. Supp. at 1077.

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 of the relationship between direct price-effects evidence and market definition in unilateral effects cases:

> If the Guidelines were not so wedded to the prima facie case developed for coordinated effects cases, the Division might have started with its econometric analysis. It might have argued that the combination of [Oracle and Peoplesoft] was going to raise price between 9.7 and 13.6 percent. The Division might have argued that the prima facie case is just an indirect means of proving the competitive effect it has established directly. So it is not really important to know the market definition and the market share. *But if the court feels that it needs to have market definitions, those follow from the competitive effects*.

Marc G. Schildkraut, *Oracle and the Future of Unilateral Effects,* 19 ANTITRUST 24 (2005) (emphasis added).

[76] *See generally* Cory Capps *et al., Competition and Market Power in Option Demand Markets,* 34 RAND J. ECON. 737 (2003); Robert Town & Gregory Vistnes, *Hospital Competition in HMO Networks,* 20 J. HEALTH ECON. 733 (2001).

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 issues for merger analysis, most significantly, determining the percentage of a merged firm's revenues that must come from customers who are harmed by the merger for the transaction to violate Section 7. The Commission need not delve into this issue in this case because, as we found above and discuss further below, the record demonstrates that the merger likely gave ENH sufficient market power to increase the average price that it charged to all MCOs.

We are mindful of the potential in both bargaining and non-bargaining markets for defining overly narrow markets in cases involving differentiated products. "Demonstrating that the merging parties' products are differentiated is not sufficient" to define a market, and there is a risk that "'localized competition' analysis [will] devolve into an unstructured submarket-type analysis." *See Oracle*, 331 F. Supp. 2d at 1119 (quoting IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 914a, at 60); *see also du Pont*, 351 U.S. at 393 (cautioning against viewing a manufacturer of every non-standardized commodity as having market power). At the same time, "a relevant market in an antitrust case may be smaller than a layperson would normally consider to be a market." *Oracle*, 331 F. Supp. 2d at 1119; *cf. Staples*, 970 F. Supp. at 1074 (defining "office supply superstores" product market). Further, a set of products can constitute an antitrust market even when it is not possible to delineate a traditional "clean break" around the products, or to devise a traditional market definition label. The keys to protecting against incorrectly narrow markets are, first, not to assume that a firm has economic power merely because its products are differentiated from those of its competitors; and, second, to ensure that the touchstone principle of market definition is satisfied: that the degree of "product differentiation [is] sufficient to sustain a small but significant and non-transitory price increase." *Oracle*, 331 F. Supp. 2d at 1120.[77]

Thus, here, if complaint counsel has proven that the significant higher-than-predicted post-merger price increases resulted from market power gained through the merger, then

[77] We are, of course, aware that some lawyers and economists have argued that the agencies and courts should focus solely on analyzing a transaction's likely competitive effects, and not define markets, in unilateral effects cases involving differentiated products due to the fact that, viewed in isolation, market shares often are not always informative about the competitive proximity of the merging firms' products. We also recognize that market definition can take on a conclusory quality in unilateral effects cases involving differentiated products because of the analytical and factual overlaps between the market definition and competitive effects analysis. *See* Jonathan B. Baker, *Stepping Out in an Old Brown Shoe: In Qualified Praise of Submarkets*, 68 ANTITRUST L.J. 203, 217 (1997). As we discuss in our treatment of Count II of the complaint, these and other considerations may justify holding at some point that it is not necessary to define a relevant market in certain Section 7 cases. Here, however, we need not decide this issue because, as we explain, it is readily possible to define the relevant product and geographic markets.

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

It is undisputed that ENH substantially and immediately raised its prices after the merger. Nominal price increases, however, do not by themselves establish the exercise of market power. Accordingly, as described above, Haas-Wilson and Baker sought to determine whether the post-merger increases were due to market power produced by the merger by calculating the amounts of ENH's post-merger price increases, and then running a series of regressions to filter out the effects of the most likely competitively-benign factors that could have caused prices to rise after the merger.

First, both Haas-Wilson and Baker found that ENH substantially increased the actual prices that ENH charged to its customers. Haas-Wilson calculated, using the payor data, 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%); and Great West (42%). CX 6279 at 3, *in camera*; CX 6282 at 5, *in camera*.[78] Using 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*. Similarly, Baker, using two different methods to calculate the price increases, found that ENH substantially raised its average net prices after the merger to the four payors that he examined: Aetna (25%, 35%); BCBS (2%, 13%); Humana (60%, 83%); and United (140%, 138%). RX 2040 at 4, *in camera*; DX 7068 at 43, *in camera*.[79] The two different percentage amounts reflect that Baker used two different methods to calculate the price increases.

Haas-Wilson next ran regressions using two data sources (the payor and the Illinois data) and three control groups, while Baker used only the payor data and two control groups. Although Haas-Wilson and Baker used different regression equations and different control

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[78] The ranges of the price increases for Aetna, BCBC, Humana, and United reflect that ENH raised prices by different levels for these MCOs' various plans.

[79] Baker also performed these calculations omitting obstetrics cases. The corresponding results were that ENH increased its prices to the four payors by the following amounts: Aetna (31%, 34%); BCBS (3%, 5%); Humana (82%, 84%); and United (124%, 111%). RX 2040 at 2, *in* camera; DX 7068 at 44, *in camera*.

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]

The MCO testimony also provides some (albeit modest) support for the conclusion that the higher-than-predicted merger-coincident price increases were due to market power, and it certainly is not inconsistent with that conclusion. The MCOs' testimony suggests that they were reluctant to drop the ENH hospitals because they were highly desirable hospitals that served the North Shore suburbs. Aetna's Mendonsa testified that he was concerned about the merger because it had resulted in "three extremely important hospitals negotiating together in a very important geography." TR 530, 518 (Mendonsa), *in camera*. Similarly, United's witness explained that the ENH hospitals were geographically significant because "when you look at the three hospitals that make up the Evanston Northwestern Healthcare system and look at . . . the triangle that they create, . . . it is very heavily populated by some of the most affluent communities in the Chicago area . . . and because while there might be hospitals to the south and to the north, there are no other facilities [within the triangle], it did not seem feasible that we could have a viable network without Evanston Northwestern Healthcare." TR 901-02 (Foucre). Unicare's Holt-Darcy likewise testified about the strategic significance of the "contiguous service area" covered by the three ENH hospitals. TR 1602 (Holt-Darcy), *in camera*.

3. Respondent's Positions

Respondent offers a series of arguments as to why the Commission should conclude that factors other than market power caused the higher-than-predicted merger-coincident price increases. We address each argument in turn, and conclude that none of them is valid.

a. Learning-About-Demand

Respondent's primary rebuttal to the econometrics is its contention that a significant portion of the merger-coincident price increases resulted from Evanston's learning from Highland Park that Evanston supposedly was charging prices that were below what respondent terms "the fully-informed competitive level." RB 48. Respondent essentially is arguing that complaint counsel's case reflects a "reverse" version of the *Cellophane* fallacy.[82] Respondent, in essence, maintains that complaint counsel has defined the market too narrowly by applying a

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[81] We analyze below whether the transaction enabled efficiencies and improvements that offset the anticompetitive effects of an increase in market power.

[82] The "*Cellophane* fallacy" derives from the Supreme Court's decision in *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956), in which the Supreme Court assessed the existence of market power by defendant du Pont by using as a baseline the existing supracompetitive price of a food wrap, rather than examining the profitability of a price increase from the baseline of a competitive price for the product. This analytical error caused the Court to find the absence of market power in a situation where the defendant already had been exercising market power.

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

178, and Neaman testified that he never saw any documents correlating the higher prices with the quality changes at Highland Park. IDF ¶ 843; ID 178. Other than a single press release mentioning planned clinical service improvements, ENH never identified any improvements at Highland Park to MCOs. IDF ¶¶ 841-47; ID 178. The MCO witnesses also testified that the topic of quality improvements at Highland Park never came up during contract negotiations, IDF ¶¶ 844-47; ID 178, and that they were not aware of a significant increase in quality at Highland Park after the merger. IDF ¶¶ 846-47, 851; ID 181.

d. Merger Guidelines' Unilateral Effects Standards

Respondent also argues that complaint counsel has not satisfied the requirements for establishing that a merger enabled the combined firm unilaterally to exercise market power. Citing the Merger Guidelines, *In re R.R. Donnelley & Sons Co.*, 120 F.T.C. 36, 195 (1995), and several other authorities, respondent argues that establishing a likelihood of unilateral effects requires showing that (1) the merging firms are viewed as the first and second choices by (2) customers accounting for significant sales in the relevant market. RRB 3-5. Respondent maintains that complaint counsel did not and could not introduce such evidence because Evanston was much larger than Highland Park, and was a teaching facility that offered a greater breadth of medical services than did Highland Park. RB 42-43. Respondent also maintains that Evanston and Highland Park were geographically dissimilar because at least eight hospitals to the south of Evanston and two hospitals to the north of Highland Park are closer to Evanston and Highland Park, respectively, than Evanston and Highland Park are to each other. RB 43.

Respondent's position is not persuasive. An MCO's demand for hospital services is largely derived from an aggregation of the preferences of its employer and employee members. TR 5936-37 (Noether). When a hospital increases its price, the MCO can retain the hospital in its network and pay the higher price or drop the hospital and replace it with another hospital or some combination of hospitals. TR 2470 (Haas-Wilson).[87] If the MCO drops the hospital, it may cause some members who have a strong preference for that hospital to switch to another MCO, and cause employers with a significant number of such members to drop the MCO altogether. If a significant portion of an MCO's members view a hospital that raises its prices as particularly important, the MCO likely will be more willing to pay some or all of the increase. TR 2475 (Haas-Wilson).[88] For example, Bain advised ENH that it likely could increase its prices to PHCS due to the "significant leverage [that ENH had] in negotiations with PHCS as [PHCS] ha[s] [a] strong North Shore presence and need[s] [ENH] in their network." CX 1998 at 44. Thus, whether the MCO decides to drop a hospital that raises its prices depends on a potentially complex assessment of the preferences of its employer and membership base.

The record reflects that Evanston and Highland Park likely were close substitutes for MCOs' members and employers, and thus for the MCOs. Evanston and Highland Park provided comparable primary and secondary services. TR 1291-93 (Neaman); CX 84 at 13, 15; TR 299 (Newton); TR 2083-88 (Spaeth). As Neaman testified, Evanston provided "[a]ll kinds of

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[87] *See* Town & Vistnes, *supra* note 76, at 734-36, 752; *see also* Gregory Vistnes, *Hospitals, Mergers, and Two-State Competition*, 67 ANTITRUST L.J. 671, 686 (2000).

[88] *See* Town & Vistnes, *supra* note 76, at 734, 737.

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 Medical Center* rejected an argument similar to respondent's position; the court held that two defendant merging academic hospitals (that provided tertiary services) competed with nearby community hospitals in the provision of primary and secondary care. 983 F. Supp. at 138-39.

Respondent's position that the two hospitals were highly differentiated geographically has somewhat more force, but also is ultimately unpersuasive. Respondent argues that a number of other hospitals are closer to Evanston and Highland Park than the merging hospitals are to each other. RB 43. Respondent appears to side-step the fact that geographic substitutability is a function not merely of the geographic relationship of hospitals to each other, but also of the relationship of the hospitals to MCOs' members. It is undisputed that there is an approximately thirteen-mile-long space between Evanston and Highland Park in which there are no other hospitals, and that no other hospitals are located within the geographic triangle formed by the ENH hospitals. Thus, it is likely that a significant number of MCO members who live in the triangle view Evanston and Highland Park as their preferred choices from a geographic perspective, and, therefore, that the financial cost to an MCO of removing the ENH hospitals from its network would exceed that of absorbing the price increase and spreading it over a larger membership base.

This conclusion is bolstered by ENH's ability successfully to charge substantially higher-than-predicted price increases to the MCOs after the merger. The MCO testimony also partially supports this determination. United's Jillian Foucre testified that Evanston and Highland Park would be the preferred choices of executives who lived in the triangle made up by the North Shore suburbs, and that executives who lived within the area made up by the triangle would not want to travel greater distances north or south to go to hospitals. TR 901-02 (Foucre). Aetna's Mendonsa testified that he thought that people who lived in the communities around the ENH hospitals would not want to travel to other hospitals, explaining 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, and . . . neither are they going to do that with Northwest Community Hospital." TR 541-43 (Mendonsa), *in camera*. Respondent's contention that the two hospitals were "vastly different" from a geographic perspective, RRB 14, also conflicts with Spaeth's testimony that Evanston was Highland Park's second overall closest competitor (after Lake Forest). TR 2163-64 (Spaeth).

We agree with respondent that not all of the MCO testimony is particularly precise and that it does not all support complaint counsel's case. We do not agree, however, that the MCO testimony undermines complaint counsel's case. Furthermore, while we likely would give less weight to customer testimony with such ambiguities in a challenge to an unconsummated merger, ambiguities are less concerning here, where our analysis is a retrospective inquiry based on empirical evidence and documents reflecting the parties' post-merger assessments of the deal.

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 (a form of natural experiment), as well as Evanston's and Highland Park's business documents, to establish the relevant product and geographic market and to show that the transaction enabled the merged firm unilaterally to exercise market power. The documents do not need to state affirmatively that a sufficient number of MCOs (or their members) viewed the merging parties as next best substitutes. Seldom do business documents use the language of the Merger Guidelines and economists to describe competition in markets. Further, economic analysis of actual market events, combined with review of other evidence, is a sound methodology to determine whether customers accounting for a significant share of ENH's business viewed Evanston and Highland Park as next-best substitutes for particular needs, and support our making such a determination in this case.

e. Repositioning of Competitors

Respondent also maintains that complaint counsel has failed to show that repositioning by ENH's competitors did not prevent or eliminate any anticompetitive effects. RRB 20-22. We disagree. Following the Merger Guidelines, the courts generally hold that entry must be likely in a two-year period in order to conclude that it will offset a transaction's anticompetitive effects. *See Cardinal Health*, 12 F. Supp. 2d at 55; Merger Guidelines § 3.2. As the ALJ found, new entry or repositioning did not reduce the market power that ENH obtained from the merger

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.

In addition, the documents, MCO testimony, and econometrics do not indicate that ENH could exercise market power due to capacity constraints at hospitals outside of the geographic market. Rather, the likely cause of the market power created by the merger was the elimination of competition between hospitals that were the most geographically convenient for a significant number of MCO members who lived within the triangle formed by the three ENH hospitals. Thus, we agree with the ALJ that new entry or repositioning did not alleviate the transaction's anticompetitive effects.

f. Elzinga-Hogarty Test

Finally, respondent argues that patient flow data undermine the ALJ's conclusion that the triangle formed by the three ENH hospitals is a relevant geographic market and that the ALJ erred by not considering such data. RB 32-33; ID 139. As the name suggests, patient flow data provide information about where patients travel to obtain hospital services. TR 2356, 2375 (Elzinga); TR 6203-04 (Noether). Respondent claims that in the context of "an 80% service area," Evanston had more patient overlap with Northwestern Memorial, Rush North Shore, Advocate Lutheran General, St. Francis, and Weiss than with Highland Park. RB 32, *in camera*. In addition, respondent maintains that there was at least as great an overlap before the merger between Highland Park and Advocate Lutheran General or Lake Forest as between Evanston and Highland Park. *Id.*

A number of courts have considered patient flow data when they have defined the geographic market. In particular, they have applied the Elzinga-Hogarty ("E-H") test to patient flow information as a proxy test to determine whether a firm could exercise market power in a potential geographic market. *See California v. Sutter Health Sys.*, 84 F. Supp. 2d 1057, 1072 (N.D. Cal. 2002); *FTC v. Tenet Healthcare Corp.*, 17 F. Supp. 2d 937 (E.D. Mo. 1998), *rev'd on other grounds*, 186 F.3d 1045 (8th Cir. 1999); *FTC v. Freeman Hosp.*, 911 F. Supp. 1213, *aff'd*, 69 F.3d 260, 264-65 (8th Cir. 1995); *United States v. Mercy Health Servs.*, 902 F. Supp. 968, 978 (N.D. Iowa 1995), *vacated as moot*, 107 F.3d 632 (8th Cir. 1997).

The E-H test was devised by professors Kenneth G. Elzinga and Thomas F. Hogarty to help to delineate geographic markets, specifically in the coal and beer industries. TR 2374-76 (Elzinga); *see* Kenneth G. Elzinga & Thomas F. Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973); Kenneth G. Elzinga & Thomas F. Hogarty, *The Problem of Geographic Market Delineation Revisited: The Case of Coal*, 23

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 travel to other hospitals. TR 2356, 2384-87, 2391 (Elzinga). Elzinga testified that for the most part, patient decisions do not have such a constraining effect because their choices of hospitals largely are based not on price but on other factors, such as location and the preferences of their physician. TR 2387-88 (Elzinga); *see* TR 2463-65 (Haas-Wilson). He explained that

> [p]eople who travel outside their home turf for hospital services usually do so [because] . . . [t]here's some particular service or amenity that they associate with that distant hospital that's important to them, or they may have family who lives some distance away and they travel to that hospital. People who consume . . . hospital services close to home typically are there either because their doctor places them at that hospital or, for purposes of their own convenience or the convenience of their family, it is very important for them to be hospitalized close to home. So, unlike products like coal and beer that will move about in response to the market signals . . . prices change and beer gets shipped to a different location – here, the prices of hospital services do not drive most people to change the location of where they consume hospital services.

TR 2387-88 (Elzinga).[89]

Further reducing the effect of prices on patients' hospital choices is that patients rarely pay directly the full cost of hospital services. Insurance companies pay the large majority of hospital costs in most instances from revenues obtained through a broad base of employer and employee-paid premiums and deductibles. Consequently, when a hospital raises its prices, the increase often is spread out over a broad number of employers and members, many of whom will never use the hospital. Even if an MCO tries to steer patients toward less costly hospitals

[89] *See also* Capps *et al.*, *supra* note 76, at 739 ("Given the propensity of some patients to travel substantial distances for care, [the Elzinga-Hogarty] standard has led to large market boundaries and, consequently, permissive merger rulings. Our results indicate that this may be a serious error. . . . Many patients, especially those with conditions that are relatively straightforward to treat, have a strong preference to go to a convenient, nearby hospital. These preferences give hospitals with no nearby competitors a strong bargaining position.").

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 of the expensive hospital and those of other, less costly hospitals.[90] Consequently, there is little reason to infer from some residents' choice of a more distant hospital that others would do likewise in response to a price increase from a closer hospital.[91]

Put more formally, the workings of the third-party payor system in the United States are such that rarely do patients fully internalize the benefits and costs of their decision to purchase a medical product or service. This lack of internalization is what Elzinga termed the "payor problem":

> [T]here's a wedge between the consumption of the service and the person who decides where the service will be consumed and then some other party actually paying for the service, and consequently, the usual market analysis of goods and services . . . in response to price incentives really doesn't fit. And so it follows in my view that looking at the flow of patients really doesn't help you define the contours of a relevant geographic market area[] because the patients who are moving are not necessarily moving in response to price incentives.

TR 2395-96 (Elzinga).

Elzinga concluded that because "the ability of particular hospitals to raise prices is not disciplined or thwarted by the travel patterns" of patients, TR 2388 (Elzinga), using patient flow data is uninformative about whether it would be profitable for merging hospitals to raise prices, and that the application of the E-H test to patient flow data would identify overly broad geographic markets. TR 2393 (Elzinga).

We find Elzinga's testimony to be persuasive. Respondent did not directly dispute Elzinga's views about the general lack of validity of using the E-H test in hospital markets to define geographic markets, including the propensity of the test to define improperly large markets. Moreover, Noether agreed that "the use of the [E-H] test is not appropriate for this case." DX 7126 at 6. Nonetheless, there is some merit to respondent's argument that the ALJ erred in holding that patient flow data are always irrelevant to determining the relevant geographic market. RB 32-33; ID 139. MCO demand for hospital services is partially a derived demand based on patient preferences, and the percentage of patients in a given area who use a hospital can, in certain circumstances, provide some rough indication of MCO preferences when they form a network. Ultimately, however, we believe that we should view patient flow data

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[90] Respondent maintains that MCOs can in fact force patients at least partially to internalize the price of hospital services through various steering techniques, such as hospital-specific co-payments and tiered networks. RB 33 n.6. The bulk of the evidence, however, is that, at least in the Chicago area, MCOs largely do not engage in such steering. *E.g.*, TR 594-95 (Neary); TR 1760-61 (Hillebrand).

[91] *See* Fed. Trade Comm'n, *Improving Health Care: A Dose of Competition*, Ch. 4, at 8-10 (July 2004), *available at* http://www.ftc.gov/reports/healthcare/040723healthcarerpt.pdf (describing the silent majority fallacy).

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 dispositive. Instead, the econometric evidence, viewed in conjunction with respondent's pre- and post-merger documents and the MCO and executive testimony, demonstrate that ENH's substantially higher-than-predicted merger-coincident price increases were due to market power, rather than competitively-benign factors. Respondent's alternative explanations for these price increases are not supported by the weight of the record evidence. We also find that because the merger enabled ENH to raise prices by a substantial amount (at least equal to a SSNIP) through the unilateral exercise of market power, the geographic triangle in which the three ENH hospitals are located constitutes a well-defined antitrust geographic market under Section 7. *See* IV AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 913b, at 64.

VI. EFFICIENCIES AND JUSTIFICATIONS

Having found that the transaction reduced competition substantially, we now address respondent's efficiency claims and other justifications for the transaction. Respondent argues that the merger produced competitive benefits that outweigh the harm to competition alleged to have resulted from this merger. First, respondent argues that the merger increased the financial strength of Highland Park, transforming it from a weak to a strong competitor. Second, respondent argues that the merger produced significant quality improvements at Highland Park, enhancing that hospital's ability to compete with other hospitals in the Chicago area. RB at 62. Finally, respondent argues that its not-for-profit status reduces the merger's potential to cause competitive harm. We address these arguments in turn.

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.").

significant threat of failure are typically remedied in a moderate length of time." IVA AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 963, at 14. As the Eleventh Circuit held in *University Health*:

> [W]e will credit such a defense only in rare cases, when the defendant makes a substantial showing that the acquired firm's weakness, which cannot be resolved by any competitive means, would cause that firm's market share to reduce to a level that would undermine the government's prima facie case.

938 F.2d at 1221; *accord Tenet Healthcare*, 17 F. Supp. 2d at 947.[94]

The precise standard for evaluating a weakened company justification is not material here because the record evidence does not substantiate ENH's contention that Highland Park's pre-merger financial condition prevented it from competing effectively. Instead, the evidence shows that Highland Park's financial condition was essentially sound. Highland Park had a strong balance sheet, with more than sufficient cash and assets to cover its long-term debt, continue operations, and – as Highland Park's strategic and financial plans indicated it intended to do – make substantial capital expenditures to improve its services and facilities. IDF ¶¶ 1028-51. Before the merger Highland Park had "historically achieved strong financial results compared to the median of not-for-profit hospitals." CX 545 at 3. At the end of 1998, Highland Park and its affiliated corporations had cash and unrestricted investments of approximately $218 million and long-term debt of $120.5 million. By the end of 1999, cash and unrestricted investments had increased to approximately $260 million, while long-term debt had diminished to $116.7 million. CX 693 at 16-17. At the end of 1998, Highland Park had enough cash on hand to run a fully functional hospital for 444 days without any additional revenue (2.4 times the national average for "A" rated hospitals) – and this amount did not even include assets of the pre-merger Highland Park Foundation, whose funds went to support Highland Park and backed up its long-term debt. CX 1912 at 2; TR 5846, 5859-60 (Kaufman); IDF ¶¶ 1052-55. Indeed, Highland Park was sufficiently well-capitalized that, during the 1999 merger negotiations with Evanston, it insisted on contributing $100 million to establish an independent community foundation. TR 5843 (Kaufman); CX 1912 at 3.

Although Highland Park experienced operating losses in 1999, its management believed that Highland Park would "remain financially strong over the foreseeable future." CX 1055 at 3. The vast majority of the operating loss reported by Highland Park in 1999 was for merger-related costs. CX 1732 at 4; TR 412-13 (Newton). Highland Park's 1999-2003 financial plan – which assumed that Highland Park would not merge with another institution – set forth a long-range capital budget that included over $100 million for various strategic initiatives and capital investments. CX 545 at 3. Highland Park anticipated that, based on growth through new clinical services and existing cash and investments, the hospital could "generate sufficient cash" to "restore the profitability" of the hospital and fund its numerous planned strategic initiatives and improvements. CX 1903 at 1; CX 545 at 3-4. Highland Park also had the support of a very

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[94] *See also Rockford Mem'l*, 717 F. Supp. at 1289 (rejecting defendants' argument that the merger should be allowed "on the basis of its prediction of future financial calamity," finding that "this 'failing market' or 'writing on the wall' defense [is] too broad and ungainly to ward off a Section 7 violation"), *aff'd*, 898 F.2d 1278 (7th Cir. 1990).

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] Other courts have been more receptive to quality-of-care arguments, but those decisions shed little light on how qualitative benefits are to be weighed against the competitive harm shown to result from a merger. *See, e.g.*, *Tenet Healthcare*, 186 F.3d at 1053-54 (mentioning improved quality as a benefit of merger, but basing reversal of district court's preliminary injunction on failure to prove relevant market).

But whatever uncertainties there may be, it is clear that claims of quality improvements must be subject to the same "rigorous analysis" that applies to all claims of procompetitive efficiencies to ensure that they "represent more than mere speculation and promises." *Heinz*, 246 F.3d at 721. ENH must show that the claimed benefits are (1) verifiable; (2) merger-specific, *i.e.*, ones that could not practicably be achieved without the proposed merger; and (3) greater than the transaction's substantial anticompetitive effects. *See* Merger Guidelines § 4; *see also Heinz*, 246 F.3d at 721-22 (finding that, among other things, asserted efficiencies must be "merger-specific"); *University Health*, 938 F.2d at 1223 ("speculative, self-serving assertions"

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[96] Although ENH asserts, in passing, that some of ENH's improvements to Highland Park enhance cost efficiency, *e.g.*, RB 75, it has made no effort to quantify any such cost savings or otherwise substantiate this claim.

[97] In the court's view, weighing the claimed quality improvements against the merger's anticompetitive effects would require a "value choice . . . beyond the ordinary limits of judicial competence." *Rockford Memorial*, 717 F. Supp. at 1288 (citing *Philadelphia Nat'l Bank*, 374 U.S. at 371) (internal quotation marks omitted).

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 requirements is satisfied here because – unlike the typical case in which the merger has not yet been consummated – the claimed improvements here already have been implemented and therefore can be "verified," and the natural inference is that they resulted from the merger. RB 76. We disagree. The fact that we can verify that ENH actually made the claimed improvements at Highland Park following the merger tells us little about whether these changes improved quality of care, or whether these improvements could have been achieved by Highland Park without the merger and "without the concomitant loss of a competitor." *Heinz*, 246 F.3d at 722.

The ALJ found that there were several problems with ENH's quality improvement claims. First, ENH did not present any quantifiable evidence that improvements at Highland Park enhanced competition. Second, ENH failed to show that quality improved across the combined ENH system (not just at Highland Park) and relative to other hospitals. Third, the ALJ found that the vast majority of the claimed improvements at Highland Park were not merger-specific. ID 177-78. As to the last point, the ALJ found that, before the merger, Highland Park had already committed (and had the financial ability) to invest over $100 million to improve and expand its facilities and services, including in many of the same areas identified by ENH as merger-related improvements. ID 182. The ALJ also found that, even apart from Highland Park's actual plans, the types of improvements claimed by ENH – improved facilities, staffing changes, and new procedures – did not require a merger. The ALJ did find that two of the claimed quality improvements – installation of the EPIC electronic medical records management system, and integration and affiliation with an academic teaching hospital – were merger-specific, but he concluded that these improvements did not outweigh the anticompetitive effects of the merger. ID 190-92.

Although our analysis differs in some respects from that of the ALJ, we agree that the evidence presented by ENH fails to rebut complaint counsel's showing of anticompetitive effects.[98] As we explained in our findings of fact, we find that the quality improvements asserted by ENH are not properly credited as benefits of the merger because Highland Park could, and likely would, have made similar improvements without a merger. Our core findings that support these conclusions are the following: (1) Highland Park had plans in place to improve its quality and expand its services without a merger, including undertaking many of the same improvements that ENH credits to the merger, such as developing a cardiac surgery program in

[98] For example, we do not agree with the ALJ that ENH must show, as part of its initial burden of production, that quality improved across the ENH system. If ENH showed that the merger improved quality at Highland Park, complaint counsel could certainly counter ENH's evidence by showing a decline in quality elsewhere in the ENH system (and, indeed, it presented expert testimony to this effect), but it should not be part of ENH's initial burden to show otherwise. We also think that the ALJ spoke too broadly in stating that ENH must show that quality at Highland Park improved relative to other hospitals. As we discuss below, whether a claimed improvement merely reflects a general trend in the industry (and thus might be deemed not merger-specific) is a relevant factor to be considered with regard to certain types of improvements (*e.g.*, certain process changes), but it is not necessarily an appropriate inquiry across the board.

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 intensivists); IDF ¶ 983 (electronic medical records systems); TR 3840-41 (Silver) (in-house physician coverage in obstetrics departments).

ENH contends that Highland Park could not have achieved any of these improvements without the merger because they required ENH's superior leadership and "collaborative and multidisciplinary culture," which Highland Park supposedly lacked. RB 77-78. This argument is without merit. As Areeda, Hovenkamp, and Solow have observed:

> Differences in management efficiency among competing firms are well-nigh universal. The usual cure for inefficient management is to replace it, as is frequently and easily done, sometimes by the board of directors, sometimes by disgruntled shareholders. As a result, management replacement is not a "merger-specific" economy. To be sure, a merger may be a quicker way of achieving this goal, particularly where the board is indecisive or the shareholders are divided. But most firms have relatively inefficient management from time to time. To permit all such firms to solve their problems by substantial horizontal merger could eviscerate § 7 of the Clayton Act.

IVA AREEDA, HOVENKAMP & SOLOW, *supra* note 69, ¶ 974, at 74 (footnote omitted). Moreover, the record shows that, when the need arose, Highland Park could readily institute new leadership to effect changes in its operations and improve its quality of care. TR 3746-49 (Krasner); TR 5479-80 (Chassin).

As noted above, the only claimed improvement that we think is properly deemed merger-specific is medical staff integration and affiliation with a teaching hospital. ENH's health care quality expert testified that the integration of medical staff and academic affiliation provides Highland Park physicians with greater opportunities to upgrade their skills and keeps them "on their toes." TR 5373-78 (Chassin). But this does not constitute verifiable evidence that ENH has improved quality at Highland Park, much less that any such improvement is of sufficient magnitude to offset the competitive harm that demonstrably has resulted from the merger.

In addition, in many instances, ENH produced little verifiable evidence that the changes it made at Highland Park improved quality of care. ENH's quality claims are based to a large extent on the testimony of its administrators, physicians, and nurse leaders, who offered their observations about the quality of care at Highland Park before and after ENH made changes. But, for the most part, ENH did not produce data to substantiate its assessments of quality at Highland Park, even though the record shows that ENH routinely tracks numerous quality indicators as part of its quality improvement program. CX 2052; CX 2436; RX 1326, *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 measures of quality. TR 5143-45, 5148 (Chassin).[101] But, as is the case with claimed economic efficiencies, difficulties of proof do not relieve ENH of its burden to produce verifiable evidence. Given the particular circumstances of this case – the fact that the merger has already been consummated, many of the claimed improvements were implemented years ago, and ENH routinely tracks numerous quality indicators – ENH could have produced more concrete evidence than it did to substantiate its claims that the changes it made at Highland Park improved the quality of care. As the court emphasized in *Heinz*, "a rigorous analysis" is required to ensure that defendant's claims of offsetting procompetitive benefits "represent more than mere speculation." *Heinz*, 246 F.3d at 721. The dearth of verifiable evidence here is all the more reason for us to find that ENH has failed to satisfy its burden to prove "extraordinary" procompetitive benefits, *id.*, offsetting complaint counsel's showing of competitive harm.

C. ENH's Not-For-Profit Status

ENH also contends that the ALJ erred in rejecting its argument that its status as a not-for-profit hospital system greatly reduces the potential for competitive harm. RB 83 n.27. ENH does not devote much time to this argument, and we need not either. As the Seventh Circuit has observed in rejecting this defense, "[t]he adoption of the nonprofit form does not change human nature . . . , as the courts have recognized in rejecting an implicit antitrust exemption for nonprofit enterprises." *Hospital Corp. of Am. v. FTC*, 807 F.2d 1381, 1390 (7th Cir. 1986) (citation omitted); *see also Rockford Mem'l*, 898 F.2d at 1285. Neaman also testified that there was no relationship between ENH's non-profit status and the prices that ENH set. TR 1032-33 (Neaman). More broadly, the totality of the record shows that ENH's non-profit status did not affect its efforts to raise prices after the merger, and we readily agree with the ALJ that ENH's status as a nonprofit entity does not suffice to rebut complaint counsel's evidence of anticompetitive effects.

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[99] For example, ENH's witnesses testified that changes implemented by ENH in radiology and emergency care improved turn-around times in those departments, but ENH did not produce data to substantiate these statements. TR 3632-34, 3643 (Victor); TR 4283-84, 4296 (Harris).

[100] Complaint counsel's quality expert, Dr. Romano, testified – and Dr. Chassin himself acknowledged, TR 5473 (Chassin) – that Dr. Chassin's methods for gathering information did not meet accepted standards of qualitative research. Among other things, Dr. Chassin made no effort to obtain the views of individuals who might have contradictory views or a perspective different from that of ENH's leadership. TR 3013-18 (Romano).

[101] On the other hand, Dr. Romano testified that structural measures are insufficient by themselves, "because they tell us very little, if anything, about the care that's actually provided to patients." TR 2988 (Romano).

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 market. Several observations are warranted, however.

First, we are obviously aware that the Supreme Court has held repeatedly that "[d]etermination of the relevant market is a necessary predicate to a finding of a violation of the Clayton Act" and that the Court has linked this requirement to the language of Section 7, which states that the plaintiff must establish that "in any line of commerce . . . in any section of the country, the effect of such [transaction] may be substantially to lessen competition." *See Brown Shoe*, 370 U.S. at 324 (citations omitted); *see also Marine Bancorp.*, 418 U.S. at 618.

More recently, however, courts have focused on the integral link between market definition and the direct analysis of whether a transaction will produce market power. *See, e.g.*, *Swedish Match*, 131 F. Supp. 2d at 156 (finding that market definition is "the key to the ultimate resolution of this type of case because of the relative implications of market power"); *Staples*, 970 F. Supp. at 1082 ("Much of the evidence already discussed with respect to defining the relevant product market also indicates that the merger would likely have an anti-competitive effect."). In addition, while the courts appropriately have continued to rely on structural presumptions derived from market definition, they also have placed much greater emphasis on the use of direct effects evidence. Thus, the D.C. Circuit noted in *Baker Hughes* that "[m]arket share is just a way of estimating market power, which is the ultimate consideration . . . [w]hen there are better ways to estimate market power, the court should use them." 908 F.2d at 992 (quoting *Ball Mem'l Hosp., Inc. v. Mutual Hosp., Inc.*, 784 F.2d 1325, 1336 (7th Cir. 1986)).

Implicit in these decisions is the well-established principle that market definition is not an end in itself but rather an indirect means to assist in determining the presence or the likelihood of the exercise of market power. *See Baker Hughes*, 908 F.2d at 992; *Toys "R" Us, Inc. v. FTC*, 221 F.3d 928, 937 (7th Cir. 2000). As Professor Hovenkamp has explained in his treatise, "[m]arket structure evidence is the surrogate for bad performance, not the other way around." HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY § 12.8, at 550 (3d ed. 2005).

Plainly, the enforcement agencies and courts need predictive tools and other inferential mechanisms to analyze market power in many merger cases. Market definition is one such type of tool. *See Toys "R" Us*, 221 F.3d at 937; *see also* HOVENKAMP, *supra*, § 12.4c, at 524 ("Both concentration measures and estimates of market share are generalized attempts to predict the likelihood of anticompetitive behavior in the market."). The role of the market definition tool, however, is potentially much less important in merger cases in which the availability of natural

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 large market share. This, however, has things backwards. As we have explained elsewhere, the share a firm has in a properly defined relevant market is only a way of estimating market power, which is the ultimate consideration. The Supreme Court has made it clear that there are two ways of proving market power. One is through direct evidence of anticompetitive effects. . . . The other, more conventional way, is by proving relevant product and geographic markets and by showing that the defendant's share exceeds whatever threshold is important for the practice in the case.

Id. (citations omitted).[102]

[102] *See also Tops Markets, Inc. v. Quality Markets, Inc.*, 142 F.3d 90, 98 (2d Cir. 1998) (finding that market power "may be proven directly by evidence of the control of prices or the exclusion of competition, or it may be inferred from one firm's large percentage share of the relevant market"); *K.M.B. Warehouse Distributors, Inc. v. Walker Mfg. Co.*, 61 F.3d 123, 129 (2d Cir. 1995) ("If a plaintiff can show an actual adverse effect on competition, such as reduced output[,] . . . we do not require a further showing of market power.") (citation omitted); *Capital Imaging Assocs. v. Mohawk Valley Med. Assocs.*,

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 negotiating procedures in a very short time. In contrast, divesting Highland Park after seven years of integration would be a complex, lengthy, and expensive process.

We note that our rationale for not requiring a divestiture in this case is likely to have little applicability to our consideration of the proper remedy in a future challenge to an unconsummated merger, including a hospital merger. For example, had we challenged this transaction prior to consummation, Evanston's intention to implement a cardiac surgery program and install EPIC at Highland Park likely would not have carried much weight in our analysis of the proper remedy because, at that time, Highland Park probably could have produced both improvements on its own in a comparable period, and thus neither improvement would have been merger-specific.

Nor will our reasoning here necessarily apply to consideration of the appropriate remedy in a future challenge to a consummated merger, including a consummated hospital merger. Divestiture is the preferred remedy for challenges to unlawful mergers, regardless of whether the

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 business operations, to craft the remedial order with the necessary precision. Accordingly, we order that, within thirty (30) calendar days, respondent must submit a detailed proposal to the Commission for implementing the type of injunctive relief that we have selected. Specifically, the proposal must identify and describe the mechanisms that respondent will use, and the steps that respondent will take, to implement the following requirements:

1. Respondent must allow all payors to negotiate separate contracts for E&G on the one hand and for Highland Park on the other hand;

2. Respondent must establish separate negotiating teams (and other relevant personnel) for E&G and Highland Park that will compete with each other, and other hospitals, for payors' business;

3. Respondent must establish a firewall-type mechanism that prevents the E&G and Highland Park contract negotiating teams (and other relevant personnel) from sharing any information that would inhibit them from competing with each other and with other hospitals;

4. Respondent may not make any contract for E&G or Highland Park contingent on entering into a contract for the other, and may not make the availability of any price or term for a contract for E&G contingent on entering into a contract for Highland Park, or *vice-versa*; and

5. Respondent shall promptly offer all payors with which it currently has contracts the option of reopening and renegotiating their contracts under the terms of this order.

Respondent's proposal should also describe, where appropriate, mechanisms for the Commission to monitor the establishment of the organizational structure needed to implement the terms of the order, as well as respondent's compliance with the order throughout its term. Respondent's proposal shall also recommend mechanisms for resolving disputes between payors and respondent with respect to respondent's compliance with the terms of the order, including a discussion of the potential value of some form of dispute resolution mechanism.

Complaint counsel must submit any objections to or comments on respondent's proposal within thirty (30) calendar days after respondent submits its proposal. Respondent may, if it chooses, respond to complaint counsel's filing within ten (10) calendar days.