(ORAL ARGUMENT SCHEDULED MARCH 24, 2017)

Nos. 17-5024 (lead), 17-5028 (consolidated)

United States Court of Appeals for the District of Columbia Circuit

UNITED STATES OF AMERICA, *et al.*,
Plaintiffs-Appellees,

v.

ANTHEM, INC., and CIGNA CORPORATION,
Defendants-Appellants.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA
No. 1:16-cv-01493-ABJ (The Honorable Amy Berman Jackson)

BRIEF OF PROFESSORS AS AMICI CURIAE IN SUPPORT OF APPELLEES AND AFFIRMANCE

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

It is the understanding of the Amici Professors that (other than the American Medical Association, Consumer Groups, and the Medical Society of the District of Columbia), all parties, intervenors, and amici appearing before the district court and in this court are listed in the Briefs for Anthem and the Appellees. References to the rulings at issue appear in the Briefs for Anthem and the Appellees. All related cases are listed in the Briefs for Anthem and the Appellees.

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CORPORATE DISCLOSURE STATEMENT

The Amici Professors are individuals and are expressing their individual views regarding the matters under review.

Pursuant to Rule 29 (a) of the Federal Rules of Appellate Procedure, counsel for Amici has obtained consent from all parties to this appeal to file this brief in support of Appellees.

INTEREST OF AMICI CURIAE

The Amici Curiae are professors with expertise in the subjects of health economics, antitrust and/or competition policy. The Appendix lists the titles and affiliations of each of the individuals. Amici are concerned that consummation of the Anthem-Cigna merger, requiring a reversal of Judge Jackson's February 8th ruling,[1] will lead to substantial anticompetitive effects in the market for commercial health insurance.[2] This concern is based on knowledge of the relevant academic literature as well as review of the public facts in this matter; no signatory of this brief has an economic interest in the outcome of this decision.

Amici professors submit this brief to clarify for the Court where the consensus lies on two key issues addressed in the relevant academic literature: the effects of greater insurance market concentration and mergers on provider prices, and the effects of the same on insurance premiums. Amici professors also share their consensus view on what the evidence from the research literature reveals

[1] United States of America, *et al.*, v. Anthem, Inc., *et al.*, Civil Action No. 16-1493 (ABJ), Memorandum Opinion.

[2] We include both fully-insured and self-insured plans in our use of the term "insurance."

about the impacts of consolidation in health insurance on competition and consumers.

Amici and their counsel authored this brief in total. No part of it was written by any party or party's counsel. No party, party's counsel or other related entity has contributed monies for the preparation and submission of this brief.

STATUTES AND REGULATIONS

All applicable statutes and regulations are contained in the addendum to Anthem's brief.

SUMMARY OF ARGUMENT

Amici begin with a brief discussion of the private health insurance industry, highlighting why preserving competition in the industry and its various submarkets is vital to the public interest, and documenting the high degree of concentration both nationally and locally. Amici then summarize the conclusions from the economics literature on health insurance markets. This body of work finds that *consolidation in health insurance markets does not, on average, benefit consumers*. Although greater insurance market concentration tends to lower provider prices, there is no evidence the cost savings are passed through to consumers in the form of lower premiums. To the contrary, premiums tend to rise with increased insurer concentration.[3] While any individual proposed merger should be evaluated in

[3] Glenn A. Melnick et al., "The Increased Concentration of Health Plan Markets Can Benefit Consumers through Lower Hospital Prices," *Health Affairs*, 30, no. 9 (2011): 1728–1733, Asako S. Moriya, William B. Vogt, and Martin Gaynor, "Hospital Prices and Market Structure in the Hospital and Insurance Industries." *Health Economics, Policy and Law* 5.04 (2010): 459-479.; and Erin E. Trish, and Bradley J. Herring, "How do Health Insurer Market Concentration and Bargaining Power with Hospitals Affect Health Insurance Premiums?" *Journal of Health Economics*, 42 (2015): 104-114; Leemore Dafny, Mark Duggan, and Subramaniam Ramanarayanan, "Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry," *American Economic Review*, 2012, 102(2): 1161–1185; Steven Sheingold et al., ASPE Issue Brief, "Competition and Choice in the Health Insurance Marketplaces, 2014-2015: Impact on Premiums," U.S. Dept. of Health and Human Services, July 27, 2015, *available at* http://aspe.hhs.gov/basic-report/competition-and-choice-health-insurance-marketplaces-2014-2015-impact-premiums; Zirui Song, Mary Beth Landrum, and Michael E. Chernew, "Competitive Bidding in Medicare: Who Benefits From Competition?" *The American Journal of Managed Care* 18.9 (2012): 546; Dickstein, Michael J, Mark Duggan, Joe Orsini and Pietro Tebaldi. 2015. "The Impact of Market Size and Composition on Health Insurance Premiums: Evidence from the First Year of the Affordable Care Act." American Economic Review, 105(5): 120-25; Eric T. Roberts, Michael E. Chernew and J. Michael McWilliams, "Market Share Matters: Evidence Of Insurer And Provider Bargaining Over

detail on its merits, Amici believe any such evaluation must consider the findings of peer-reviewed, academic scholarship on this subject. In addition, Amici agree with Judge Jackson's skepticism that the largest source of alleged merger-induced cost-savings – a reduction in rates paid to providers by applying the "best of both" contracts – will be beneficial to consumers, let alone sufficient to offset the harm arising from reduced competition in insurance markets.

Prices," *Health Affairs*, 2017, 36(1): 141-148, doi: 10.1377/hlthaff.2016.0479; Kate Ho and Robin S. Lee, "Insurer Competition in Health Care Markets," *Econometrica*, forthcoming, http://www.columbia.edu/~kh2214/papers/InsurerComp.Main.pdf.

ARGUMENT

I. Private Health Insurance Markets Are Vital to the Public Interest and Are Highly Concentrated

As the Court is undoubtedly aware, nearly two thirds of the U.S. population under age 65 is enrolled in a private health plan, and nearly half of these people are in plans operated by the top four national firms.[4] Although the private health insurance industry itself accounts for only 7% of national health expenditures ($210 billion out of a total spending of $3.2 trillion in 2015), roughly 65% of national health spending flows *through* private health insurance companies.[5] Moreover, this industry is poised to grow further as both the previous and current administrations plan to rely heavily on the private sector to supply insurance products. Per the Affordable Care Act, individuals who do not qualify for public insurance must purchase a policy from a private insurance carrier or pay a penalty to the IRS. For many individuals, their private insurance premiums are paid in part or in full directly by the federal government, further illustrating the public interest in efficient private health insurance markets. Thus, the importance of this industry to the U.S. economy is understated by traditional measures of industry size.

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[4] National Center for Health Statistics, "Early Release of Selected Estimates Based on Data From the National Health Interview Survey, 2014," Table 1.2b (Hyattsville, Md.: NCHS, June 2015), http://www.cdc.gov/ nchs/data/nhis/earlyrelease/earlyrelease201506.pdf.

[5] "National Health Expenditures; Aggregate, Annual Percent Change, Percent Distribution and Per Capita Amounts, by Type of Expenditure: Selected Calendar Years 1960-2015," Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

At present, the private health insurance industry is highly concentrated. Between 2006 and 2014, the national four-firm concentration ratio (the collective market share of the four largest insurance carriers) for the sale of private insurance increased from 74 percent to 83 percent, in large part due to acquisitions and mergers like the one at issue. By comparison, the four-firm concentration ratio for the airline industry – well-known as a relatively concentrated sector – is 62 percent. Concentration within local areas also appears to be increasing over time; the median HHI across metropolitan areas known as Metropolitan Statistical Areas (MSAs) increased from 1,716 in 2001 to 2,973 in 2012, well in excess of the threshold for "highly concentrated" (2,500) per the *Horizontal Merger Guidelines* issued jointly by the Department of Justice and the Federal Trade Commission.[6] Due to the large number of prior consolidations that have taken place in the health insurance industry, as well as the significant role that the private health insurance industry plays in the U.S. economy, academic economists have conducted a number of studies of the effects of industry consolidation.

II. Greater insurance market concentration leads to lower prices paid to providers

We first summarize the evidence to support the notion that health insurers with greater market share can command lower prices from healthcare providers. This

[6] U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, 2010, *available at* http://www.ftc.gov/os/2010/08/100819hmg.pdf.

issue is central to the Appellant's defense in this case, as Anthem has negotiated lower prices with its suppliers (providers), on average. A number of economists have studied the correlation between insurance market concentration, typically measured by insurer HHI at the MSA level, and hospital prices.[7,8] Using different data sources and time periods, these studies consistently find that hospital prices are lower in areas with higher insurance HHIs (typically measured at the MSA level). This relationship also holds when researchers study *changes* over time, i.e., areas experiencing faster growth in insurer HHI exhibit slower growth in hospital prices.

[7] A standard measure of market concentration is the Herfindahl-Hirschman index or HHI. This is calculated by summing the squared market shares of each of the competitors. For example, consider a local market with three firms, two with 25 percent of the market and one with 50 percent. In this case, the HHI is 3750, $\{(50^2 + 25^2 + 25^2) = 3750\}$.

[8] Glenn A. Melnick et al., "The Increased Concentration of Health Plan Markets Can Benefit Consumers through Lower Hospital Prices," *Health Affairs*, 30, no. 9 (2011): 1728–1733; Asako S. Moriya, William B. Vogt, and Martin Gaynor, "Hospital Prices and Market Structure in the Hospital and Insurance Industries." *Health Economics, Policy and Law* 5.04 (2010): 459-479; and Erin E. Trish, and Bradley J. Herring, "How do Health Insurer Market Concentration and Bargaining Power with Hospitals Affect Health Insurance Premiums?" *Journal of Health Economics*, 42 (2015): 104-114. All three of these papers rely on estimates of insurer HHI calculated from InterStudy data. Melnick et al. find that hospital prices in 2001–2004 are lower in MSAs with higher insurer HHI, provided the insurer HHI exceeds 3,200. Moriya et al. find that increases in MSA-level insurer HHI between 2001 and 2003 are associated with decreases in hospital prices. Trish and Herring use more recent data (from 2006–2011) and find evidence suggesting that hospital prices are lower in more concentrated insurance markets. A more recent paper by Eric T. Roberts, Michael E. Chernew and J. Michael McWilliams ("Market Share Matters: Evidence Of Insurer And Provider Bargaining Over Prices," *Health Affairs*, 2017, 36(1): 141-148, doi: 10.1377/hlthaff.2016.0479) uses variation in insurer market shares within an insurance claims database and finds that insurers with larger market shares obtain substantially lower prices from physician practices. Kate Ho and Robin S. Lee ("Insurer Competition in Health Care Markets," *Econometrica*, forthcoming, http://www.columbia.edu/~kh2214/papers/InsurerComp.Main.pdf.) use data from the California Public Employees' Retirement System (CalPERS) to examine insurer-hospital bargaining outcomes. They find that having one fewer insurer in a market can lead to lower negotiated hospital prices, but does not necessarily do so.

III. Greater insurance market concentration leads to higher premiums, notwithstanding lower provider prices

Economic studies consistently document *higher* insurance premiums in local areas with *fewer* insurers, including studies of state health insurance marketplaces,[9] the large group market (self- and fully-insured combined),[10] large public employers,[11] and Medicare Advantage.[12] One recent study evaluates fully-insured employer-sponsored premiums and finds evidence consistent with higher insurer mark-ups in more concentrated insurance markets, controlling for other area characteristics such as the hospital market concentration.[13] A second recent study of insurer competition – specifically for enrollees in plans sponsored by California's CalPERS system - finds that having one fewer insurer in the market

[9] Steven Sheingold et al., ASPE Issue Brief, "Competition and Choice in the Health Insurance Marketplaces, 2014-2015: Impact on Premiums," U.S. Dept. of Health and Human Services, July 27, 2015, *available at* http://aspe.hhs.gov/basic-report/competition-and-choice-health-insurance-marketplaces-2014-2015-impact-premiums.; Dickstein, Michael J, Mark Duggan, Joe Orsini and Pietro Tebaldi. 2015. "The Impact of Market Size and Composition on Health Insurance Premiums: Evidence from the First Year of the Affordable Care Act." American Economic Review, 105(5): 120-25.

[10] Leemore Dafny, Mark Duggan, and Subramaniam Ramanarayanan. *Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry*. No. w15434. National Bureau of Economic Research, 2009. The majority of plans (and lives) in the sample were self-insured.

[11] Kate Ho and Robin S. Lee, "Insurer Competition in Health Care Markets," Econometrica, forthcoming, http://www.columbia.edu/~kh2214/papers/InsurerComp.Main.pdf.

[12] Zirui Song, Mary Beth Landrum, and Michael E. Chernew, "Competitive Bidding in Medicare: Who Benefits From Competition?" *The American Journal of Managed Care* 18.9 (2012): 546.

[13] Erin E. Trish, and Bradley J. Herring, "How do Health Insurer Market Concentration and Bargaining Power with Hospitals Affect Health Insurance Premiums?" *Journal of Health Economics*, 42 (2015): 104-114.

can result in lower hospital prices, but that premiums are higher nonetheless, due to decreased competition in the insurance market.[14]

Whether any savings from lower post-merger provider payments are passed through to consumers in the form of lower premiums depends on the merged firm's incentives to reduce prices (whether for administrative services or fully-insured premiums). If a merger results in substantially reduced competition, as Judge Jackson concluded was likely to occur if the Anthem-Cigna merger were consummated, then the merged firm's prices will become *less* constrained as a result of diminished competition. It is highly likely that the merged firm will find it profitable to increase prices, notwithstanding any reduction in their medical costs. Ultimately the result is an empirical question, and the economic analyses published on the subject find no evidence that cost savings are passed through to consumers.

There are two studies specifically examining the impact of insurance mergers on premiums. Both show that mergers lead to premium increases.

- The first study examines the effects of the 1999 merger of Aetna and Prudential on both sides of the market, i.e. the purchase of medical services and the sale of commercial insurance.[15] Post-acquisition, the combined entity covered 21 million lives. The study used detailed data on health insurance plans sponsored by large, mostly multi-site employers

[14] Kate Ho and Robin S. Lee, "Insurer Competition in Health Care Markets," Econometrica, forthcoming, http://www.columbia.edu/~kh2214/papers/InsurerComp.Main.pdf.

[15] Leemore Dafny, Mark Duggan, and Subramaniam Ramanarayanan, "Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry," *American Economic Review*, 2012, 102(2): 1161–1185.

representing roughly 10 million lives. In the three-year period following the merger, the study found a relative reduction in healthcare employment and wages in those geographic areas where the two parties had more substantial pre-merger overlap. The implication is that the exercise of market power vis-a-vis healthcare providers reduced price *and* output in health care markets.

The authors also found that premiums (for fully-insured and self-insured plans combined, with the majority of lives in self-insured plans) increased significantly more in areas with greater pre-merger overlap. Importantly, the study was able to control for changes over time in the average premium for any given employer, so these changes reflect relative differences across markets for the same firm. Moreover, premium increases were observed not just for the merging firms but for their rivals (in areas where the merging firms had substantial overlap). Thus, even though this particular merger was linked to lower healthcare personnel wages and employment, the cost savings were not passed on to consumers.

- The second study examined the effect of the 2008 merger between Sierra Health Services and United on small group premiums in two Nevada markets. As compared to control cities in the South and West, small group premiums in these markets increased by 13.7 percent the year following the merger.[16]

In addition, Amici subscribe to the view expressed in the *Horizontal Merger Guidelines*, which do not recognize input price reductions obtained via increased market power as an efficiency.[17] To the extent that post-merger provider price reductions alleged to be achievable by the parties are due to market power, they are

[16] Jose R. Guardado, David W. Emmons, and Carol K. Kane, "The Price Effects of a Large Merger of Health Insurers: A Case Study of UnitedHealth-Sierra," *Health Management, Policy and Innovation*, 2013: 16–35.

[17] Horizontal Merger Guidelines, Section 12, U.S. Department of Justice and Federal Trade Commission, August 19, 2010.

not eligible to be considered as efficiencies. Amici urge the court to consider this view in its ruling.

IV. Conclusion

In sum, research evidence shows that health insurer consolidation tends to lead to lower payments to healthcare providers, but those lower payments are not passed on to consumers. On the contrary, industry consolidation has led to higher insurance premiums. The private health insurance industry is of vital public interest, both due to its influence over a significant portion of the economy and to the magnitude of taxpayer dollars devoted to subsidizing the purchase of private insurance. We urge the court to consider the academic research and economic consensus we have presented when deciding whether to affirm the opinion issued in this matter.

March 17, 2017

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CERTIFICATE OF COMPLIANCE

I certify that the foregoing complies with the type-volume limitation of Fed R. App. P. 29(a)(5) and 32(a) (7)because it contains 2,304 words, excluding the portion exempted by Fed. R. App. P. 32(f).

CERTIFICATE OF SERVICE

I certify that on March 17, 2017, I caused the public version of the foregoing to be filed through this Court's appellate CM/ECF filer system, which will serve a notice of electronic filing on all registered counsel.

In addition, I caused two paper copies of the foregoing to be served by overnight delivery to:

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