

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

**FUBOTV INC. and FUBOTV MEDIA
INC.,**

Plaintiffs,

-against-

**THE WALT DISNEY COMPANY, ESPN,
INC., ESPN ENTERPRISES, INC., HULU,
LLC, FOX CORPORATION, and
WARNER BROS. DISCOVERY, INC.,**

Defendants.

Civil Action No. 24-cv-1363-MMG-JW

Expert Declaration of Jonathan Orszag

April 7, 2024

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	QUALIFICATIONS	1
B.	BACKGROUND ON LITIGATION.....	2
C.	BACKGROUND ON THE PAY TV INDUSTRY	4
D.	ASSIGNMENT.....	5
E.	SUMMARY OF CONCLUSIONS.....	6
II.	THE DEFENDANTS HAVE MARKET POWER IN THE RELEVANT MARKETS FOR EVALUATING THE COMPETITIVE EFFECTS OF THE PROPOSED JV	8
A.	PRINCIPLES OF MARKET DEFINITION	8
B.	THE SALE OF SPORTS NETWORK PROGRAMMING TO VMVPDS AND MVPDS IN THE UNITED STATES IS A RELEVANT MARKET	9
C.	THE SALE OF PAY TV SERVICES TO CONSUMERS IS A RELEVANT MARKET.....	16
D.	THE JV WILL ENHANCE THE MARKET POWER OF DEFENDANTS IN THE MARKET FOR THE SALE OF SPORTS PROGRAMMING TO VMVPDS AND MVPDS	21
III.	THE PROPOSED JOINT VENTURE WILL HARM FUBO, OTHER VMVPDS AND MVPDS AND COMPETITION BY RAISING THE PRICE OF SPORTS NETWORKS.....	30
A.	FUBO WOULD BE HARMED BY THE PROPOSED JV IN THE DOWNSTREAM MARKET FOR THE SALE OF PAY TV SERVICES TO CONSUMERS.....	30
B.	THE JV WOULD HAVE THE INCENTIVE TO RAISE PRICES OF SPORTS NETWORKS TO RIVAL VMVPDS AND MVPDS, THUS HARMING COMPETITION	39
C.	THE HARMS TO FUBO ARE NOT JUSTIFIED BY EFFICIENCY RATIONALES	42
	APPENDIX A: CURRICULUM VITAE.....	A-1
	APPENDIX B: MATERIALS RELIED UPON.....	B-1

I. INTRODUCTION

A. QUALIFICATIONS

1. My name is Jonathan Orszag. I am a Senior Consultant to Compass Lexecon, LLC, an economic consulting firm. My services have been retained by a variety of public-sector entities and private-sector firms ranging from small businesses to Fortune 500 companies. These engagements have involved a wide array of matters, from entertainment and telecommunications issues to issues affecting the healthcare and technology sectors. I have provided testimony to the Copyright Royalty Judges, U.S. Congress, U.S. courts, the European Court of First Instance, the Federal Communications Commission, and other domestic and foreign regulatory bodies on a range of issues, including competition policy, industry structure, and fiscal policy.

2. Previously, I served as the Assistant to the U.S. Secretary of Commerce and Director of the Office of Policy and Strategic Planning and as an Economic Policy Advisor on President Clinton's National Economic Council. For my work at the White House, I was presented the Corporation for Enterprise Development's leadership award for "forging innovative public policies to expand economic opportunity in America." I have taught at both the University of Southern California and UCLA; most recently, I served as a Lecturer at UCLA, teaching a class on antitrust and merger analysis.

3. I received an M.Sc. in economic and social history from Oxford University, which I attended as a Marshall Scholar. I graduated *summa cum laude* in economics from Princeton University, where I was elected to Phi Beta Kappa. I have been named by *Who's Who Legal* as one of the most highly regarded competition economists in the world.

4. I have testified or consulted on matters of antitrust and competition policy, liability, and damages in many cases covering a range of industries, including oil and gas, entertainment, hardware, software, airlines, pay television, tobacco, medical devices, healthcare, and credit cards. My *curriculum vitae* provides a list of matters in which I have testified in the past four years and my publications for the past ten years, and is provided as Appendix A to this report.

5. The rate charged by Compass Lexecon for my work on this matter is \$1,800 per hour. I have no financial interest in the outcome of this proceeding.

B. BACKGROUND ON LITIGATION

6. Defendants The Walt Disney Company, ESPN, Inc., ESPN Enterprises, Inc., Hulu LLC (hereinafter “Disney”), Fox Corporation (hereinafter “Fox”), and Warner Bros. Discovery, Inc. (hereinafter “WBD”) recently announced a joint venture (“JV”) to create a streaming direct-to-consumer (“DTC”) application that would offer the parties’ linear sports programming.¹ As announced, the new JV “platform brings together the companies’ portfolios of sports networks,” including Disney’s ESPN, ESPN2, ESPNU, SECN, ACCN, ESPNEWS, ABC, and ESPN+ networks; Fox’s FOX, FS1, FS2, and BTN networks; and WBD’s TNT, TBS, and truTV networks.² While the parties have not announced the price that the JV will charge for its DTC streaming sports app, S&P Capital IQ estimates that the JV would charge subscribers \$40 per month; other estimates suggest pricing may be closer to \$50 per month.³

7. Plaintiffs fuboTV Inc. and fuboTV Media Inc. (“Fubo”) allege that Defendants have “long been engaged in a multifaced campaign to frustrate Fubo’s innovative sports-first

¹ Business Wire, “ESPN, FOX and Warner Bros. Discovery Forming Joint Venture to Launch Streaming Sports Service in the U.S.,” February 6, 2024, available at: <https://www.businesswire.com/news/home/20240206387529/en/ESPN-FOX-and-Warner-Bros.-Discovery-Forming-Joint-Venture-to-Launch-Streaming-Sports-Service-in-the-U.S.>

² Business Wire, “ESPN, FOX and Warner Bros. Discovery Forming Joint Venture to Launch Streaming Sports Service in the U.S.,” February 6, 2024, available at: <https://www.businesswire.com/news/home/20240206387529/en/ESPN-FOX-and-Warner-Bros.-Discovery-Forming-Joint-Venture-to-Launch-Streaming-Sports-Service-in-the-U.S.>

³ Ex. 1, S&P Capital IQ, “How does the proposed ESPN-FOX-WBD sports service stack up against vMVPDs?,” February 23, 2024. See also, Ex. 2, Wells Fargo, “MEDIA – Sports Finally Heads to Streaming,” February 6, 2024. See also Deadline, “Fox Expects Sports Streaming Venture With Disney And WBD To Hit 5M Subscribers In 5 Years, Lachlan Murdoch Says,” March 4, 2024 available at: <https://deadline.com/2024/03/fox-sports-streaming-disney-warner-bros-discovery-million-subscribers-lachlan-murdoch-1235844971/>

streaming business, resulting in the extreme suppression of competition in the U.S. sports-focused streaming market and significant harm to both Fubo and consumers.”⁴ In particular, the complaint alleges that the JV “reflects an anticompetitive agreement between horizontal competitors to exclusively license their must-have sports content on a standalone basis to their jointly owned application, while denying rival distributors the ability to offer those same channels on an unbundled basis.”⁵

8. Fubo further alleges that the creation of the proposed JV among the Defendants will harm Fubo by “increas[ing] the [JV] participants’ incentives *not* to make the necessary [live sports] content available to Fubo and others.”⁶ More specifically, Fubo argues that the “JV aligns the interests and incentives of three large horizontal competitors in the sports programming market. The proposed collusive arrangement will cause even higher prices and even worse terms for third-party video distributors such as Fubo—and the millions of American consumers who rely on those services.”⁷

9. Fubo alleges that the Defendants have engaged in anticompetitive behavior for many years before the announcement of the JV this year, including:

- a. **Tying and Bundling Restrictions:** Fubo alleges that “Defendants have leveraged their power over sports content to impose their ‘bundling’ requirements on Fubo, forcing Fubo to spend hundreds of millions of dollars to license and broadcast content that its customers do not want or need,”⁸ thereby resulting in higher prices to consumers and lost profits to Fubo.
- b. **Most-Favored Nation Clauses:** Fubo also claims that “Defendants have imposed significantly above-market licensing fees and other onerous economic terms on

⁴ fuboTV Inc. and fuboTV Media Inc., v. The Walt Disney Company, ESPN, Inc., ESPN Enterprises, Inc., Hulu, LLC, Fox Corporation, and Warner Bros. Discovery, Inc., Case No. 1:24-mc-00070, February 20, 2024 (Complaint), ¶ 1.

⁵ Complaint, ¶ 220.

⁶ Complaint, ¶ 2.

⁷ Complaint, ¶ 17.

⁸ Complaint, ¶ 8.

Fubo by colluding with Fubo’s two largest competitors—Google-owned YouTube TV and Disney-owned Hulu + Live TV (‘Hulu TV’)—to set artificially high rates for Fubo.”⁹ In particular, due to “most-favored-nation” clauses in Defendants’ carriage agreements and “rebates” Defendants provide to YouTube TV and Hulu TV, “Fubo is forced to pay above-market rates (and agree to other onerous terms), while both YouTube TV and Hulu TV avoid paying those same above-market rates,”¹⁰ reducing price competition and stifling competition.

- c. **Feature Restrictions:** Fubo also alleges that Defendants have harmed the ability of Fubo to compete with other video distributors—including the recently announced JV—through contractual restraints that “prohibit Fubo from offering important product features, limiting Fubo’s ability to offer consumer-desired innovations and diminishing the attractiveness of Fubo’s product to customers.”¹¹

C. BACKGROUND ON THE PAY TV INDUSTRY

10. As explained by Fubo’s industry expert, James Trautman, the pay TV industry has three basic levels that result in the creation and distribution of video entertainment—and most relevant for this matter, live sports—to consumers.¹²

- **Sports leagues.** Sports leagues, such as the NFL or NBA, schedule live sporting events. They in turn market the rights to televise these events to programming aggregators—that is, networks—which typically enter into long-term licensing agreements that give the networks the exclusive right to show a set of live sports events.
- **Programming aggregators.** In the US, the primary programming aggregators of live sports content are networks, such as ESPN, TNT, and Fox. The most significant of these networks are owned and operated by large publicly traded media companies,

⁹ Complaint, ¶ 9.

¹⁰ Complaint, ¶¶ 9-10.

¹¹ Complaint, ¶ 11.

¹² Declaration of James Trautman in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW (Trautman Decl), ¶¶ 8-9.

such as the Defendants in this matter (Disney, WBD and Fox). I refer to these programming aggregators, and networks or programmers, interchangeably.

- **Programming distributors.** Networks have typically been distributed by facilities-based multichannel video programming distributors (“MVPDs”), which include cable companies such as Comcast or Charter and satellite TV firms such as DirecTV and DISH Network. More recently, internet-based streaming services known as virtual MVPDs (“vMVPDs”) have emerged as competitors to traditional MVPDs. vMVPDs include YouTube TV, Hulu + Live TV, and fuboTV. Both MVPDs and vMVPDs license the right to distribute networks owned by the programmers to their subscribers.

11. In addition to MVPDs and vMVPDs, there are firms that offer streaming video-on-demand (“SVOD”) services such as Netflix, Amazon Prime Video, and Hulu. These services bypass the MVPD/vMVPD distribution model while also engaging in both licensing and development of programming content, which they provide directly to their subscribers. Some SVODs have licensed the rights to certain live sports events.

D. ASSIGNMENT

12. I have been asked by counsel for Fubo to evaluate the likely relevant markets in which Fubo, the Defendants, and the proposed JV participate, and whether the proposed JV will create or enhance market power in any relevant market. I have also been asked to opine as to whether it is likely that the proposed transaction will result in harm to competition (read: harm to consumers) in any relevant market, as well as whether the proposed transaction will harm any competitors, such as Fubo.

13. In evaluating the competitive effects of the proposed JV, I have applied standard economic principles and methods, based on my training as an economist and my more than two decades of experience on competition matters. In undertaking my analysis, my staff and I have reviewed a variety of materials relevant to this case, including: (i) court filings made by Fubo; (ii) Fubo’s carriage agreements with the Defendants; (iii) the relevant economics literature; (iv) publicly available data sources; and (v) other relevant testimony and documents. A full list of the materials I have relied upon in preparing my analysis is attached as Appendix B.

14. My analysis is ongoing, and I reserve the right to supplement or modify my analysis in light of new materials that may become available to me.

E. SUMMARY OF CONCLUSIONS

15. Based on my analysis to date, I conclude that the proposed JV will enhance the market power of the Defendants in the sale of sports network programming to MVPDs in the United States, and will result in harms to competition, consumers, and Fubo in that market and the downstream market for the sale of live pay TV services to consumers. Such an overall conclusion is supported by the following more detailed findings.

16. **First**, the sale of sports network programming to vMVPDs and MVPDs in the United States is a relevant antitrust market. Such a finding is supported by market evidence—including statements by executives of the Defendants—that live sports programming is a key driver of demand for linear television networks, and that advertisers uniquely value live sports programming to reach consumers. Consequently, sports programming networks command higher market prices than general entertainment programming due to the nature in which such networks can help vMVPDs and MVPDs attract and retain subscribers. The geographic scope of this market is the United States, because the sports networks at issue are licensed to vMVPDs and MVPDs on a national basis. (See **Section II.B**)

17. **Second**, there is a downstream market for the sale of pay TV services to consumers (read: subscribers), that is no broader than vMVPDs and MVPDs, and may be as narrow as vMVPDs only. These relevant markets are consistent with the prior statements of the U.S. Department of Justice (“DOJ”) and market evidence. (See **Section II.C**)

18. **Third**, the proposed JV will enhance the market power of the Defendants in licensing their “must have” sports programming to vMVPDs and MVPDs.¹³ Standard measures of market concentration suggest that the transaction will result in a significant

¹³ The FCC has described “non-replicable sports programming” as “must have” programming. See Federal Communications Commission, “Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,” MB Docket No. 16-247, Eighteenth Report, Released: January 17, 2017, p. 15. I should note that the term “must have” has no precise definition in economics.

concentration of sports rights controlled by the JV members—with more than 54 percent of the total U.S. sports rights controlled by the Defendants. (See **Section II.D**)

19. **Fourth**, the proposed JV, in combination with Defendants’ licensing agreements, will harm Fubo and competition by allowing the JV to offer a “skinny bundle” of live sports focused content, while explicitly preventing Fubo and other vMVPDs and MVPDs from competing with that skinny bundle. As recognized by the Defendants, their licensing agreements with Fubo and other vMVPDs and MVPDs will force (or continue to force) those distributors of the Defendants’ content to offer “big fat bundles,” which will hamstring Fubo’s ability to compete with the JV, to the detriment of consumers. (See **Section III.A**)

20. **Fifth**, the JV will increase the bargaining leverage of the Defendants, thus giving them the incentive and ability to raise prices to vMVPDs and MVPDs. Further, to the extent that the JV—by aligning the Defendants’ incentives and facilitating communication—allows the Defendants to tacitly or explicitly coordinate on the affiliate fees they will charge unaffiliated distributors, the JV will further increase the ability to raise wholesale prices to Fubo and other vMVPDs/MVPDs. Academic research shows that such higher wholesale rates will be passed through to vMVPD/MVPD subscribers in the form of higher prices.¹⁴ Additionally, economic theory predicts that the introduction of a differentiated product—here, the skinny bundle—by a vertically integrated supplier can result in higher wholesale and retail prices for the non-skinny bundles if vertical restrictions are imposed on unintegrated distributors that prevent them from offering a skinny bundle of their own. (See **Section III.B**)

21. **Sixth**, it is unlikely that the vertical restrictions imposed upon Fubo and other vMVPDs and MVPDs reflect a pro-competitive strategy by the Defendants to efficiently distribute their content. That is, if a “skinny bundle” were the truly economically efficient

¹⁴ In the context of his work on the AT&T-Time Warner merger, Professor Carl Shapiro cited evidence showing pass-through rates of programming costs to subscribers of 75-100 percent. Shapiro, C. “Vertical Mergers and Input Foreclosure Lessons from the *AT&T/Time Warner* Case”. *Rev Ind Organ* 59, 303–341 (2021) p. 328. Earlier economic research suggests that 50-60 percent of increases in programming costs to MVPDs are passed on to consumers in the form of higher prices for pay TV services. See, e.g., Ex. 3, George S. Ford and John D. Jackson, “Horizontal Concentration and Vertical Integration in the Cable Television Industry,” *Review of Industrial Organization* 12: 501-518 (1997), p. 514.

mechanism for distribution of the JV content, the Defendants would presumably allow Fubo and other vMVPDs and MVPDs to offer such a product too. Rather, because the Defendants have decided to not impose any bundling restrictions on the proposed JV, the vertical restrictions more likely reflect an anticompetitive strategy, which serves to harm—not enhance—competition. (See **Section III.C**)

22. The remainder of this report develops the empirical and theoretical bases for these findings.

II. THE DEFENDANTS HAVE MARKET POWER IN THE RELEVANT MARKETS FOR EVALUATING THE COMPETITIVE EFFECTS OF THE PROPOSED JV

A. PRINCIPLES OF MARKET DEFINITION

23. Market definition helps to specify the lines of commerce and geographic areas in which firms may exercise market power, enables the identification of market participants and measurement of market shares and concentration and thus, most importantly, facilitates the analysis of whether a firm (or firms) has market power in a relevant market.¹⁵

24. Market definition focuses on demand-side substitution, meaning customers' ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service.¹⁶

25. A relevant market has a product and a geographic dimension, which are two sides of the same coin. The fundamental question in determining both product and geographic market boundaries is to determine what firms are (inside the boundary) and are not (outside the boundary) relevant competitors to the firm in question. It is the set of firms selling reasonably close substitute *products* into a *geography* that limits some customers' willingness or ability to substitute to some products, and thus limits the ability of firms in the relevant market profitably to raise prices.¹⁷

¹⁵ U.S. Department of Justice and the Federal Trade Commission, "Horizontal Merger Guidelines," Issued: August 19, 2010, (2010 Horizontal Merger Guidelines), p. 7.

¹⁶ 2010 Horizontal Merger Guidelines, p. 7.

¹⁷ 2010 Horizontal Merger Guidelines, p. 8.

26. Conceptually, the relevant market is defined by the “hypothetical monopolist test.” The hypothetical monopolist asks whether a single firm that was the only seller of a group of products “likely would impose at least a small but significant and non-transitory increase in price (‘SSNIP’) on at least one product in the market.”¹⁸ If so, that group of products passes the test and is a relevant antitrust market.

27. In this matter, I apply these principles in analyzing the relevant markets and whether the proposed JV would either facilitate or create an enhancement of market power in any relevant market post-transaction. I note that, due to the lack of discovery needed to do a complete analysis of the relevant markets and the proposed JV’s likely market power in any relevant market, I largely rely on the available evidence, both provided to me by Fubo and that which is publicly available.¹⁹

B. THE SALE OF SPORTS NETWORK PROGRAMMING TO VMVPDS AND MVPDS IN THE UNITED STATES IS A RELEVANT MARKET

28. I conclude that there is a relevant market for the sale of sports programming to vMVPDs and MVPDs in the United States. That is, the relevant market is the sale of channels that contain live sports programming to the vMVPDs and MVPDs that distribute that content—as well as the content obtained from other programmers—to consumers.

29. Programmers that produce television channels with live sports programming (such as Disney’s ESPN or WBD’s TNT) negotiate with MVPDs (such as DirecTV or Comcast) and vMVPDs (such as Fubo or Sling) for the right to distribute those channels to pay television subscribers. Typically, vMVPDs and MVPDs pay programmers a license fee—called an

¹⁸ 2010 Horizontal Merger Guidelines, p. 9.

¹⁹ In this declaration, I only analyze those antitrust markets that are relevant to Fubo’s claims in its complaint that the proposed JV will cause antitrust harm to Fubo and consumers. There are likely other antitrust markets that are relevant to other allegations made by Fubo in its complaint. Similarly, there are likely other antitrust markets that are relevant to other aspects of potential competitive effects due to the proposed JV beyond those discussed here. The fact that I do not address such markets does not mean that I either agree or disagree with whether such antitrust markets exist—or whether there is harm in such markets.

“affiliate fee”—that pays the programmer a contractually negotiated amount per month for each subscriber to the vMVPD/MVPD.

30. For example, industry analyst SNL Kagan estimated that in 2023, ESPN’s affiliate fees were \$9.42 per subscriber per month, while TNT’s affiliate fees were \$3.00 per subscriber per month. Distributors similarly pay programmers for non-sports programming based on the same fee structure. For example, SNL Kagan reports that, in 2023, the Fox News Channel received affiliate fees of \$2.42 per subscriber per month, while WBD’s CNN news channel received affiliate fees of \$1.24 per subscriber per month.²⁰ Programming costs are the largest cost for vMVPDs/MVPDs.²¹

31. In this relevant market, the Defendants—Disney, Fox and WBD—participate as sellers of the licensing rights to television channels featuring sports programming. vMVPDs—such as Fubo—and MVPDs participate as purchasers of the rights to license those sports channels.

32. From the perspective of an vMVPD or MVPD, there are no good substitutes for the live sports programming that sports networks, such as ESPN, license to them because such programming is critical to the efforts of vMVPDs and MVPDs to attract and retain

²⁰ Ex. 4, Capital IQ / SNL Kagan TV Network Summary - Affiliate Revenue per Avg Sub/Month.

²¹ For example, S&P Capital IQ reports that the three largest public cable operators—Comcast, Charter, and Altice “spent more than two-thirds of residential video revenues on programming in the three-month period ended March 31 [2021]—a metric that reveals the headwinds faced by not only traditional video distributors but by the legacy TV ecosystem at large.” See S&P Capital IQ, “Q1 cable programming costs jump, long-term trends more favorable,” June 7, 2021, p. 1.

subscribers.²² That is, for an vMVPD or MVPD, live sports programming is “must have” content.²³

33. First, live sports are well recognized to be among the limited programming content that consumers will watch live, and not “time-shifted” to a video-on-demand format.²⁴ For example, a recent news story noted that “[t]here’s far more niche programming for niche interest than seemingly ever before, but global sporting events and world news events will always capture the public’s attention in a way viral moments can’t. People watching the Super Bowl still knew the Chiefs won in overtime before they saw it on X.”²⁵ Similarly, the *Sports Business Journal*, in reporting that 94 of the top 100 rated programming events were live sports, concluded that “[s]ports continued to show why they are the most valuable programming on television in 2022, making another strong statement at a time when the entertainment industry faces challenges with attracting viewers to scripted programming.”²⁶ J.P. Morgan summed up the importance of live sports, stating that “sports content is a ‘must-

²² I first tested econometrically the importance of sports programming to MVPD subscribership more than two decades ago in the context of News Corp/DIRECTV merger. Consolidated Application of General Motors Corporation, Hughes Electronics Corporation and the News Corporation Limited for Authority to Transfer Control, MB Docket No. 03-124, December 15, 2003 Ex Parte Letter from EchoStar to FCC, pp. 5 – 7. Since then, others have found similar results. See, e.g., Andrew Stewart Wise and Kiran Duwadi (2005), “Competition Between Cable Television and Direct Broadcast Satellite: The Importance of Switching Costs and Regional Sports Networks,” *Journal of Competition Law and Economics*, 1(4) 675-705 and Gregory Crawford, Robin Lee, Michael Whinston, and Ali Yurukoglu, “The Welfare Effects of Vertical Integration in Multichannel Television Markets,” *Econometrica*, Vol. 86, Issue 3, May 2018. p. 925. And the FCC has concluded that “non-replicable sports programming” is “must have” programming. Federal Communications Commission, “Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming,” MB Docket No. 16-247, Eighteenth Report, Released: January 17, 2017, p. 15.

²³ Declaration of Todd Mathers in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW (Mathers Decl.), ¶¶ 9-10.

²⁴ Trautman Decl., ¶¶ 12, 14-15.

²⁵ Angela Watercutter, “Live TV Is the New Streaming,” *Wired*, February 16, 2024, available at: <https://www.wired.com/story/super-bowl-123-million-viewers-live-tv-streaming/>.

²⁶ Austin Karp, “Games Rule: Sports events account for all but six of the top 100 telecasts of 2022,” *Sports Business Journal*, January 9, 2023.

have’ for broadcast and media networks amid a declining linear ecosystem, as well as for streaming services which increasingly vie for market share in a competitive industry where non-live entertainment (unscripted and scripted series) is more highly commoditized.”²⁷

34. Second, live sports are uniquely valuable to advertisers, because viewers that watch live sports are more likely to watch TV commercials, unlike time shifted (or on-demand streaming) entertainment content, for which viewers will often skip advertisements. For example, one industry observer stated that: “Over the last few years, more and more brands have been placing their marketing budgets not just on TV but more specifically with live sporting events. Why? Because these are events that people want to watch as they unfold, presenting advertisers with the perfect platform to reach millions of viewers at a time—not an easy feat when you consider streaming consumption and fragmentation.”²⁸ Another publication contrasted the increased demand for advertising on live sports with that on other programming, explaining that: “[t]he difficult advertising environment obscures a silver lining: Despite the tough macro environment, the sports advertising business is still booming.”²⁹

35. [REDACTED]

²⁷ Ex. 8, Anna J. Lizzul, “fuboTV: A Sports-Centric Live TV Streaming Platform; Initiating Coverage at Overweight,” *JPMorgan*, December 9, 2021.

²⁸ Misha Williams, “Live Sports: The Power of the Live Audience for Brands,” *Freewheel*, available at: <https://www.freewheel.com/insights/blog/live-sports-the-power-of-the-live-audience-for-brands>.

²⁹ Alex Werpin, “The TV Advertising Market Is Slumping, But Sports Ads Are Booming,” *The Hollywood Reporter*, March 27, 2023, available at: <https://www.hollywoodreporter.com/business/business-news/sports-advertising-boom-march-madness-1235358336/>.

[REDACTED]

[REDACTED]

[REDACTED]

36. Consistent with these facts, the DOJ, has previously recognized that the “licensing of cable sports programming to MVPDs constitutes a relevant product market and line of commerce.”³⁰ The DOJ explained that “[s]ports programming is important to MVPDs because sports viewers comprise an important customer group for MVPDs, and MVPDs could not attract many of these sports viewers without including sports television programming in the

³⁰ Complaint, United States of America, v. The Walt Disney Company, and Twenty-First Century Fox, Inc., Case No. 1:18-cv-05800, June 27, 2018, (“Walt Disney/Fox Complaint”), ¶ 12.

MVPDs’ packages of available networks.”³¹ Similarly, in connection with the AT&T-Time Warner merger, the DOJ explained that:

Due in part to the emergence of [subscription video on demand services like Netflix], which offer television shows and movies but generally do not offer live sports (or news) programming, the ability to offer live programming is becoming increasingly important to MVPDs and virtual MVPDs. The value of live sports programming in particular is enhanced by the fact that viewers are more likely to watch it live and not skip through commercials, and it is a limited resource that—due to existing, exclusive, long-running contracts—generally will not become available again for purchase by programmers for several years. As a Time Warner document explains: “Across the industry, most of the remaining top sports rights are locked up into the next decade.”³²

37. Market evidence indicates that live sports programming is uniquely valuable because of its special characteristics (as described by the DOJ and industry analysts). Consistent with the fact that live sports programming is more valuable—and thus distinct—from non-sports programming is the fact that sport channels typically receive higher affiliate fees than non-sports channels.

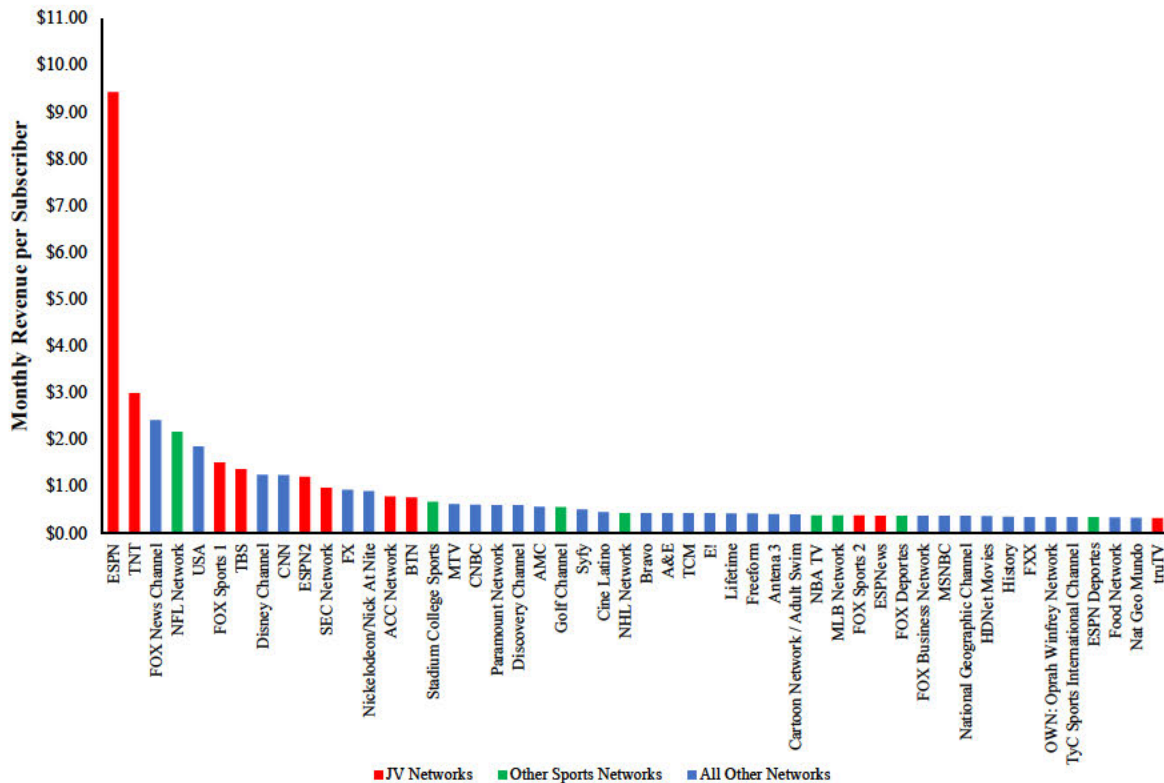
38. Figure 2 below presents SNL Kagan’s estimates of the 2023 affiliate fees for the top 50 cable channels.³³ As can be seen in that chart, seven of the top ten affiliate fees for these channels were for channels that offered live sports programming; two of the other top ten channels were news channels providing live content. Moreover, the average affiliate fee received by sports channels was \$1.30 per subscriber per month, or almost double the average \$0.71 per subscriber per month that non-sports channels received. And the average affiliate fees for the networks that the Defendants will contribute to the JV is even higher—at \$1.83 per subscriber per month.

³¹ Walt Disney/Fox Complaint, ¶ 15.

³² Complaint, United States of America, v. AT&T Inc., DIRECTV Group Holdings, LLC, Time Warner Inc., Case No. 1:17-cv-02511, November 20, 2017, (“AT&T/Time Warner Complaint”), ¶ 18.

³³ I exclude Regional Sport Networks (RSNs) and premium cable channels from this chart.

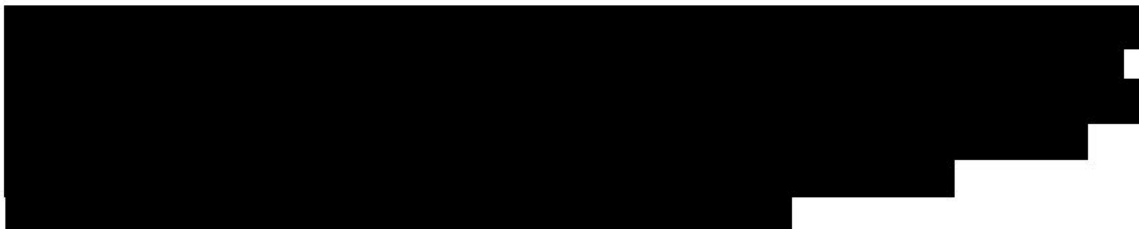
Figure 2
Estimated Affiliate Fees for Top 50 Pay TV Networks
2023



Source: Capital IQ / SNL Kagan TV Network Summary - Affiliate Revenue per Avg Sub/ Month.
 Note: Top 50 networks are ranked by average revenue per subscriber per month in 2023, excluding RSN and Premium networks. Premium networks include HBO / Cinemax, Starz / Starz Encore, MGM+ and Showtime / TMC / Flix. Broadcast channels (e.g. ABC, FOX, CBS) are not included because they do not have subscriber revenue.

39. The geographic extent of this market is national, because sports programmers license their television channels to vMVPDs and MVPDs on a national basis, defining the United States as the relevant “Territory” for the licensing rights,³⁴ and do not charge different affiliate fees in different geographic areas within the United States.

34



C. THE SALE OF PAY TV SERVICES TO CONSUMERS IS A RELEVANT MARKET

40. Video distributors such as Fubo and other vMVPDs/MVPDs compete in a relevant market in which programming distributors sell pay TV services to consumers. The pay TV market is a well-recognized antitrust market. As I demonstrate in this section, this market is no broader than vMVPD and MVPD distributors of pay TV services, and likely includes a narrower market (or submarket) for streaming-based vMVPD providers.

1. The Relevant Market is No Broader Than vMVPDs and MVPDs

41. In the AT&T/Time Warner merger, the DOJ stated that “[t]he distribution of video programming by MVPDs and virtual MVPDs also constitutes a relevant antitrust product market . . . If one company owned all MVPDs and virtual MVPDs in a geographic market, it would profitably raise prices significantly on at least one product.”³⁵ In that case, the judge accepted the DOJ’s proposed relevant market.³⁶

42. It is likely that providers of SVOD services are not in the relevant market, because they have significantly different product characteristics and price points.

43. First, SVOD providers typically provide limited linear programming—and in particular, have limited live sports programming. For example, while Amazon’s Prime SVOD service shows the NFL’s Thursday Night Football game, it does not offer the depth or breadth of live sports programming that the Defendants’ networks like ESPN or TNT offer. Similarly, Netflix, the largest SVOD in the United States, has historically not offered any live sports programming. While it recently aired exhibition golf and tennis matches, ABC News reports

³⁵ AT&T/Time Warner Complaint, ¶ 28. The DOJ also proposed an “All Video Distribution” relevant market. AT&T/Time Warner Complaint, ¶ 27. Whether there is—or is not—another, broader relevant market which includes SVODs is not inconsistent, from an economic perspective, with the conclusion that there is a narrower vMVPD/MVPD-only market that excludes SVODs.

³⁶ “[D]efendants, for all of their objections to the Government’s case, have not meaningfully challenged the Government’s proposed product or geographic markets. I will thus accept the Government’s proposed product and geographic markets for purposes of this case...” United States v. AT&T Inc. Civil Case No. 17-2511 (RJL) (D.D.C. Jun. 12, 2018), p. 62.

that “Gabe Spitzer, Netflix vice president of nonfiction sports, has said in recent interviews that they have talked to every league and team but have mainly discussed series and documentaries” instead of live sports, and that Netflix is not expected to bid on the NBA or UFC live sports packages when those deals expire with ESPN.³⁷ Because, as discussed above, live sports are a key driver of demand for live pay TV services, the lack of live sports on SVOD providers suggests that they are serving different customers than those who purchase vMVPD or MVPD services.

44. The substantial differences in pricing between SVOD services and vMVPD services provides additional evidence that SVODs are unlikely to constrain the pricing of providers of pay TV services. Table 1 below reports the monthly prices of the top five SVODs and vMVPDs. As can be seen from that table, the monthly prices of SVOD services are below \$10 per month, while vMVPD services are typically over \$70 per month. Again, these large differences in prices suggest that SVODs are offering a different type of product than vMVPDs.

³⁷ ABC News, “Netflix's recent forays into live sports programming not expected to create any big waves soon,” March 21, 2024, available at: <https://abcnews.go.com/Entertainment/wireStory/netflixs-recent-forays-live-sportsprogramming-expected-create-108358144#:~:text=After%20being%20on%20the%20sidelines,Mike%20Tyson%20and%20Jake%20Paul>

Table 1
Monthly Prices for Subscriptions to Leading SVOD and vMVPD Providers

Type of Provider	Firm	Service with Ads	Service Without Ads
SVOD Providers	Netflix	\$6.99	\$15.49
	Amazon Prime Video	N/A	\$14.99
	Disney+	\$7.99	\$13.99
	Max	\$9.99	\$15.99
	Hulu	\$7.99	\$17.99
vMVPDs	DirecTV Stream	\$79.99	N/A
	YouTube TV	\$72.99	N/A
	Fubo	\$74.99	N/A
	Hulu + Live TV	\$76.99	\$89.99
	Sling TV	\$40.00	N/A

Source: The Motley Fool, “Here's How Much It Would Cost to Subscribe to All Streaming Services in 2024.”

45. The geographic extent of the pay TV market has both national and local dimensions. Traditional MVPDs—such as Comcast or Cox—offer services in particular geographic areas due to the need for their facilities-based transmission services. As such, the pricing offered by traditional MVPDs for their services can vary by local area. However, vMVPDs such as Fubo or Hulu + Live TV offer their services nationally and do not vary prices by geography. As noted by the DOJ in the AT&T-Time Warner complaint, “Consumers seeking to purchase video distribution services must choose from among those providers that can offer such services directly to their home. Direct broadcast satellite providers, such as DirecTV, can serve customers almost anywhere in the United States. In addition, online video distributors are available to any consumer with high-speed internet service, such as broadband, sufficient to deliver video of an acceptable quality.”³⁸ Even if the relevant product market is local, as a matter of economics, one can aggregate those markets for analytical convenience. The reason: the economic analysis in each local market will have similar, if not identical, analytical properties.

³⁸ AT&T/Time Warner Complaint, ¶ 29.

2. There Is Likely a Relevant Market for vMVPDs

46. Within the broader pay TV market, there is likely a narrower relevant market that consists solely of vMVPD services, such as Fubo, YouTube TV, Hulu + Live TV, and Sling. This is the vMVPD market.

47. One of the Defendant CEOs stated that the proposed JV would compete in this vMVPD market; on March 4, 2024 conference call, Fox CEO Lachlan Murdoch said that the JV streaming service is “effectively going to operate like” a “[digital] MVPD....”³⁹

48. One reason that the sale of vMVPD services is a distinct market is that purchasers of vMVPD services are a distinct set of customers. As noted by the 2010 Horizontal Merger Guidelines “if the merged firm could profitably target a subset of customers for changes in prices or other terms, the Agencies may identify relevant markets defined around those targeted customers.”⁴⁰

49. [REDACTED]

³⁹ Ex. 12, “Fox Corporation Presents at Morgan Stanley Technology, Media & Telecom Conference,” March 4, 2024 p. 7.

⁴⁰ 2010 Horizontal Merger Guidelines, p. 12.

⁴¹ Declaration of Alberto Horiheula in Support of Plaintiffs’ Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW (Horiheula Decl.), ¶ 8.

⁴² [REDACTED]

⁴³ [REDACTED]

[REDACTED]

50. vMVPDs also have distinct uses, characteristics, and prices, compared to traditional cable providers, such as Comcast or DirecTV. vMVPD services are delivered over a broadband internet connection, without the need for equipment like a cable set-top box or a satellite dish. This allows consumers of vMVPD services to watch from any internet-enabled device, which further strengthens the appeal of vMVPD services to a younger and more tech-savvy demographic.⁴⁵ In contrast to traditional MVPD services, vMVPD services do not require long-term contracts and have significantly lower prices and fees.⁴⁶

51. Executives for the JV parties have indicated that, with their jointly owned sports streaming service, they are targeting the unique demographics associated with vMVPD subscribers. Fox’s CEO, Mr. Murdoch, explained the JV’s “sports-focused platform is focused entirely on cord-nevers,” or consumers who have never subscribed to a traditional cable service such as Charter or Comcast.⁴⁷

52. A critical factor in assessing the scope of a relevant market is how customers shift their purchases—i.e., when a customer leaves an vMVPD, do they decide to subscribe to another vMVPD, an MVPD, or do they decide not to have any service at all? The more subscribers switch to another vMVPD, the more likely that the relevant product market is no broader than vMVPD services. Mr. Horihuela presents data in his declaration consistent with a conclusion that the market is no broader than vMVPDs. Specifically, he testified that, “[w]hen Fubo customers end their subscriptions, the vast majority will either switch to another live TV streaming service like Fubo, or will simply stop subscribing to a live TV service altogether (often temporarily, in between sports seasons). Very few Fubo customers go back to

44

45

46 Trautman Decl. ¶¶ 33.

47 Cablefax, “Different Tunes for Fox, Disney as MVPDs Consider Streamer,” February 7, 2024, available at: <https://www.cablefax.com/distribution/sports-alliance-different-tunes-for-fox-disney-as-mvpds-consider-streamer>.

traditional cable. Third-party data that Fubo obtained from Cardlytics, a company that analyzes credit card data to study consumer behavior, suggests that customers who deactivate their Fubo account tend to next subscribe to other vMVPDs like YouTube TV or Hulu + Live TV.”⁴⁸

53. The geographic extent of the virtual pay TV market is the United States. This is because the participants in this market—the vMVPDs—offer their services on a nationwide basis and do not charge different prices in different geographic areas within the United States.⁴⁹ Moreover, vMVPD services are tailored toward a United States audience, with predominantly English-language content and sports channels centered on American professional and college sports.⁵⁰ vMVPD services also can only be watched within the United States because of geo-location restrictions.⁵¹

D. THE JV WILL ENHANCE THE MARKET POWER OF DEFENDANTS IN THE MARKET FOR THE SALE OF SPORTS PROGRAMMING TO VMVPDS AND MVPDS

54. The JV fundamentally alters the bargaining power that each of the Defendants possesses unilaterally, thereby facilitating an increase in market power in the sale of sports programming to MVPDs and vMVPDs. This is because—as discussed in more detail in Section III below—the proposed JV will change the incentives of each member of the JV to increase the price of their sports programming to MVPDs, whether explicitly or tacitly. Because of this change in incentives, the market power of the Defendants is most appropriately analyzed collectively, even if each of the three JV members would—at least nominally—continue to independently license their sports programming networks to MVPDs and vMVPDs.

55. Quite simply: The JV members have decided to collude together to create a downstream product—instead of compete with each other—and that collusion, as implemented

⁴⁸ Horihuela Decl., ¶ 14.

⁴⁹ I understand that while Fubo’s pricing does not vary by geography, Fubo customers that subscribe to RSN packages can pay different fees for that service by region, based on the RSN fees.

⁵⁰ Horihuela Decl., ¶ 23.

⁵¹ Horihuela Decl., ¶ 24.

through the JV, significantly increases the market power of the JV members in the market for the sale of sports programming to MVPDs and vMVPDs. In other words, due to the proposed JV, the market power of each of the Defendants will increase above the level that each would have individually possessed absent the JV. Further, the JV will align the interests of the Defendants in bargaining with vMVPDs and MVPDs and enhance the bargaining power of each Defendant relative to what it would have possessed absent the JV. For these reasons, the JV changes the incentives and market power of the Defendants in the licensing of sports programming content to vMVPDs and MVPDs in ways that are analogous to a merger of Defendants in the sale of sports programming.

56. The proposed JV will thus have significant competitive effects. Indeed, the JV's sports networks will control the rights to many of the most attractive sports programming events, including events from the NFL, the NBA, college sports, MLB, the NHL and other sports. A variety of evidence supports this point.

57. First, the Defendants themselves have noted the importance of their sports networks. For example, Disney CEO Bob Iger stated: "You cannot launch a new multichannel platform or bundle successfully without ESPN."⁵² Similarly, Mr. Murdoch has stated "[o]n the advertising front, Fox is uniquely benefitting from a healthy national ad market, where brands are increasingly seeking out engaged, real-time audiences at scale that only live news and sports platforms deliver" and has also stated that "what drives the sports business is, first and foremost, live sports and live sports content."⁵³ David Zaslav, CEO of WBD, has also touted the importance of WBD's sport programming, noting that "on average, we might be 25 percent of viewership on any given night. But when – during the NBA, we could be up to 40 percent of viewership ... [d]uring March Madness our numbers will be even higher. And so the ability to

⁵² Deadline, "Bob Iger Says He Feels "Great" About ESPN's Long- Term Prospects," May 18, 2016, available at: <https://deadline.com/2016/05/disney-bob-iger-feels-great-about-espn-long-term-prospects-1201758719/>.

⁵³ Ex. 13, Fox Corporation, "2022 Q1 Earnings Conference Call Transcripts," November 3, 2021, p. 10.

use ... particularly live sports ... during a difficult market ... gives us a chance to go to advertisers on digital news, sports, entertainment.”⁵⁴

58. Second, the Defendants have stressed that combining their sports networks into the JV would give it even more power. For example, Disney CFO Hugh Johnson told CNBC that the JV would control “over 80 percent of the national games that are currently broadcast.”⁵⁵ Mr. Murdoch stated “[w]e think that the 14 linear networks this service offers gives people a tremendous amount of content ... [i]t’s a tremendous offering that covers the majority of the key sports in this country.”⁵⁶ And Mr. Zaslav noted that the JV’s skinny bundle provides a “much better, more fluid, more simple consumer experience” by bundling WBD’s sport content with Fox’s and Disney’s.⁵⁷

59. Third, the sports networks that the Defendants will contribute to the JV are the most watched and carried pay TV sports networks, indicating that these assets are the most demanded pay TV sports programming. As such, their combination will increase the JV members’ market power in the sale of sports programming to MVPDs and vMVPDs. Figure 3 below shows the 2022 average prime time ratings for the networks that will be available in the proposed JV and other leading sports networks. As can be seen in that figure, the JV networks generally earn higher ratings than other sports networks.

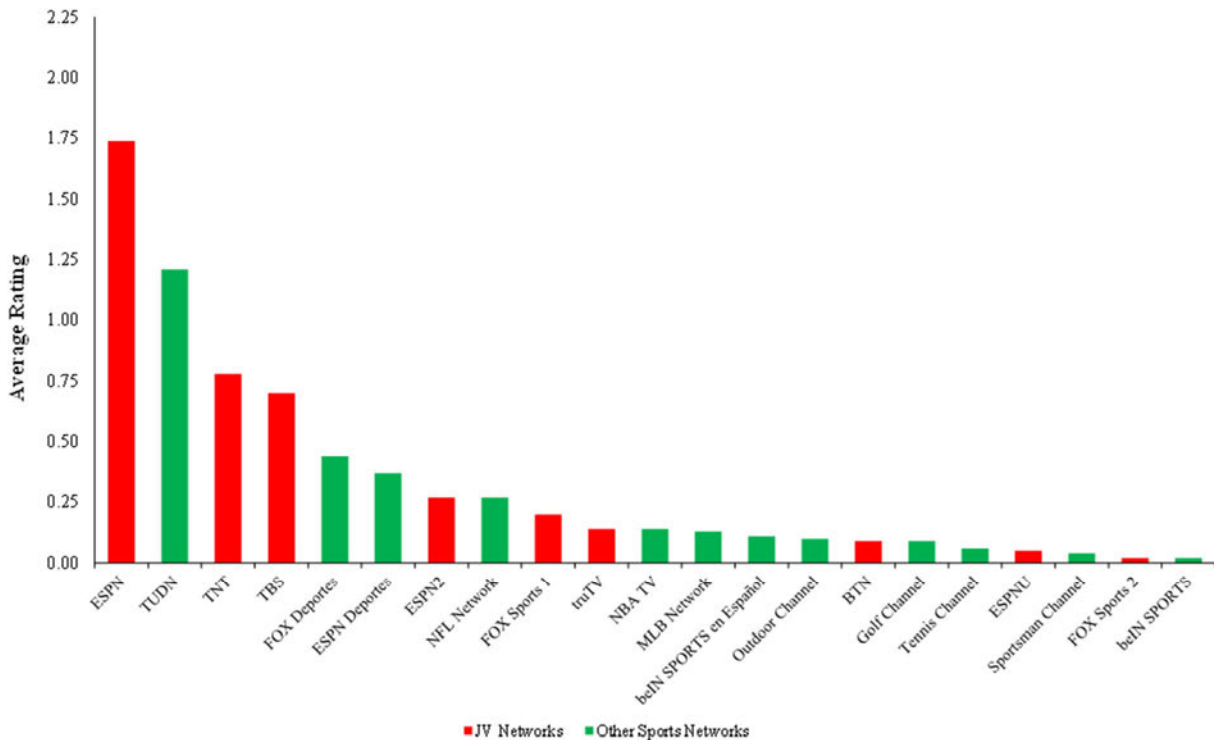
⁵⁴ Ex. 14, Warner Bros. Discovery, Inc., “2022 Q3 Earnings Conference Call Transcript,” November 3, 2022, p. 13.

⁵⁵ IndieWire, “A Running List of Everyone Who Already Hates the Disney, Fox, and WBD Sports-Streaming Service,” February 21, 2024, available at: <https://www.indiewire.com/news/analysis/who-hates-the-disney-fox-wbd-sports-streaming-service-1234955403/>.

⁵⁶ Ex. 15, Fox Corporation, “2024 Q2 Earnings Conference Call Transcript,” February 7, 2024. p. 9

⁵⁷ Ex. 16, Warner Bros. Discovery, Inc., “2023 Q4 Earnings Conference Call Transcript,” February 23, 2024. p. 16.

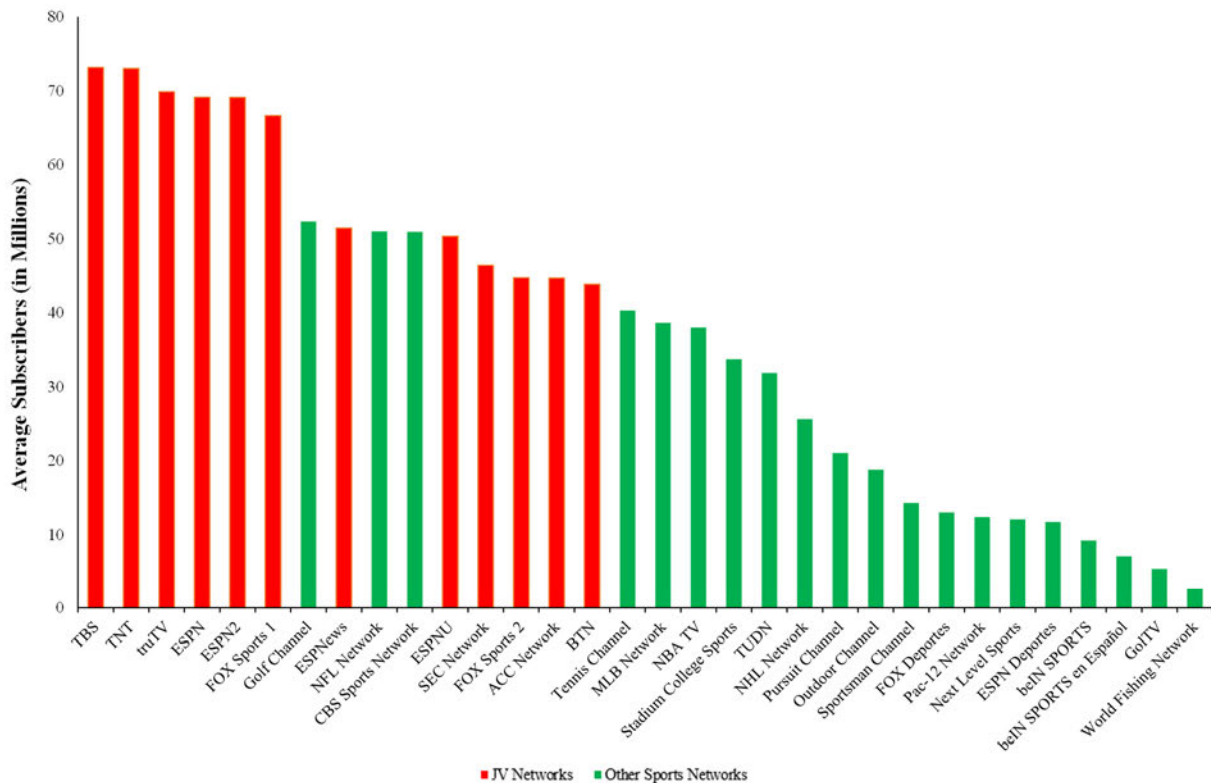
Figure 3
Average Prime Time Rating for JV Networks and Other Sports Cable Networks
2022



Source: Capital IQ / SNL Kagan TV Network Summary - Average Prime Time Rating
 Note: Average ratings is the average number of households watching that network during the prime time period, divided by the total number of network subscribers. Chart includes JV networks and all other sports networks, excluding Premium networks and Broadcast channels. Premium networks include HBO / Cinemax, Starz / Starz Encore, MGM+ and Showtime / TMC / Flix. Broadcast channels include ABC, Azteca, CBS, Estrella TV, FOX, ION, MyNetworkTV, NBC, Telemundo, The CW, UniMás, and Univision. The following JV networks do not have ratings available in 2022: ACCN, ESPNNews, and SECN.

60. Figure 4 shows the 2023 subscribership for the JV networks and other sports networks, and shows that the JV networks account for seven of the top ten sports networks by subscribership and 12 of the top 15 sports networks, which is consistent with higher demand for the live sports programming available on the JV networks.

Figure 4
Subscribership for JV Networks and Other Sports Networks
2023



Source: Capital IQ / SNL Kagan TV Network Summary - Average Subscribers.

Note: Average subscriber count in 2023 is calculated by averaging 2022's year end subscriber count and 2023's year end subscriber count together. The chart includes JV networks and all other sports networks, excluding RSNs. Broadcast channels (e.g. ABC, FOX, CBS) are not included because they do not have subscribers.

61. Economists and regulators often assess the potential anticompetitive harm from a merger, or a similar transaction such as the instant JV, by assessing the market concentration and change in concentration due to the transaction. As a starting place for determining market concentration and market power, economists and regulators often calculate market shares of market participants to assess their competitive significance in that market.⁵⁸

62. One way to approximate the competitive significance of the JV's sports networks is to analyze the value of the sports that are shown on that network. As an initial matter, sports have different levels of popularity with end consumers, and thus command different levels of rights fees from sports programmers like the Defendants. For example, it is well recognized

⁵⁸ 2010 Horizontal Merger Guidelines, p. 15.

that football is the most watched sport—and indeed the most watched television programming of any kind in the United States. Industry observer SportBusiness explained:

Despite profound changes to the nature of the US media market, American football remains vital content for any platform looking for large audiences in an appointment-to-view window, with the NFL accounting for 82 of the top 100 television ratings in 2022. The annual Super Bowl is the single most watched programme in the US every year.⁵⁹

63. By contrast other sports programming, such as the NHL or motorsports, have more niche audiences and are thus not as widely watched as the NFL. This is reflected in the fees that programmers such as Disney, Fox, and WBD pay for the media rights to these sports leagues. For example, programmers pay an estimated \$10 billion annually for the rights to broadcast NFL games, compared to \$625 million for the NHL and \$83 million for Formula One racing.⁶⁰

64. The implication of these different levels of rights fees that sports programmers pay to sports leagues—based on differences in the attractiveness of this content to viewers—means that the level of rights fees that sports programmers pay to sports leagues are appropriate proxies for the competitive significance of the channels that programmers license to MVPDs and vMVPDs. This is because the amount that programmers spend on sports media rights and their competitive significance in the sports program licensing market are two sides of the same coin—the price for the media rights reflects their value in the licensing market. For example, because consumers value watching football more highly than watching motorsports—and consumers are more willing to switch MVPDs to obtain football programming, than, e.g., motorsports, channels that carry live football receive higher affiliate fees than those that carry motorsports. Because many channels carry a variety of sports—all of which have differing levels of consumer interest—one way to measure the aggregate value of the sports content that a sports programmer sells to vMVPDs and MVPDs—and that the video distributor uses to attract customers—is to sum the value of all sports rights fees the programmers have paid to sports leagues. And thus, one can calculate market shares that reflect the competitive

⁵⁹ Ex. 19, SportBusiness, “Global Media Report 2023,” p. 16.

⁶⁰ Ex. 20, Citi Research, “Fox Corporation”, February 6, 2024, p. 2.

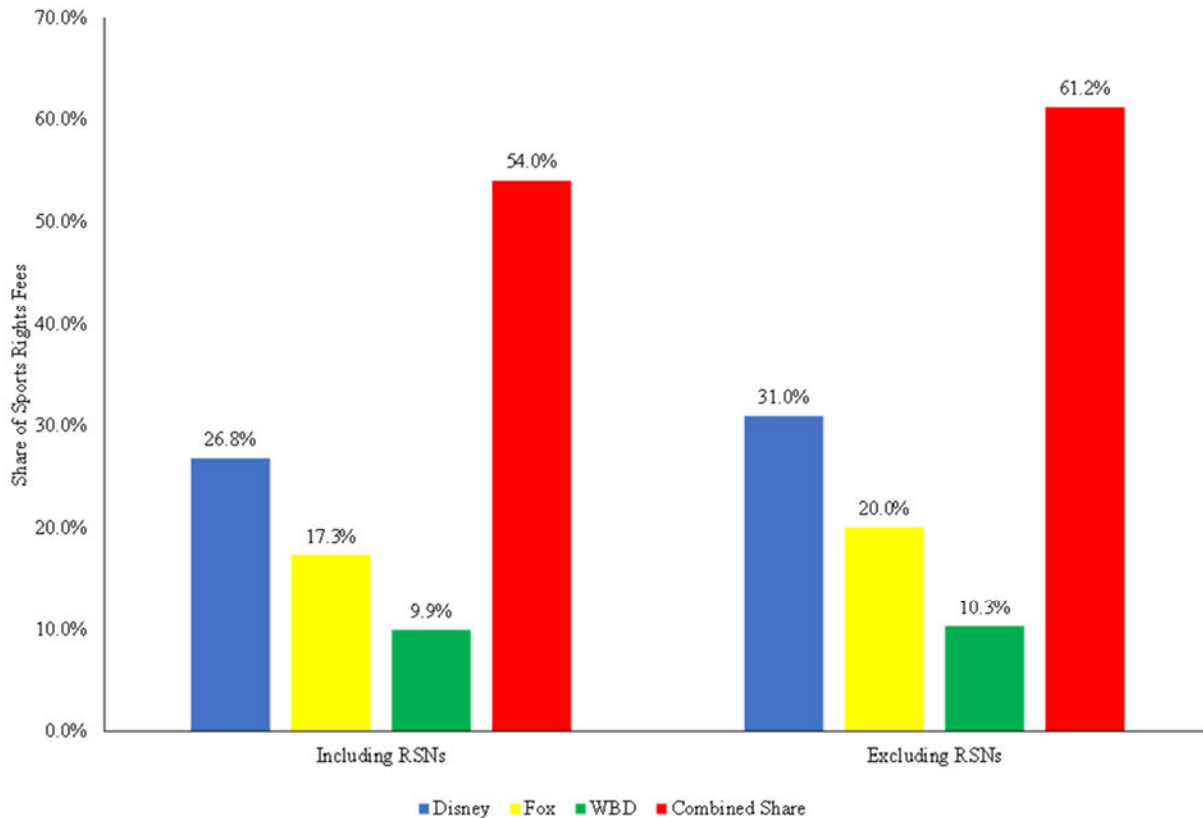
significance of programmers in the market for the sale of sports programming to vMVPDs and MVPDs by calculating the share of sports rights fees paid by each programmer.

65. Based on the information available from investment bank Citi, I have therefore estimated the competitive strength of the different firms televising live sports by estimating their share of the total value of US sports rights. Figure 5 (below) shows the shares of total US sports rights accounted for by Disney, Fox and WBD, as well as the combined share of these three firms. Based on Citi's estimates, Disney has a 27 percent share of the sports rights fees paid to leagues, while Fox has a 17 percent share, and WBD has a 10 percent share. Combined, these three firms control the television rights to sports that account for 54 percent of total US sports rights (*see* Figure 5, left-hand column).

66. I note that Citi's estimates of U.S. sports rights fees include those sports rights paid for by RSNs. These are sports networks that are narrowly focused on sports teams in a relatively small geographic region, typically metropolitan areas like Chicago, Seattle, or Boston. Such sports programming may not be a particularly close substitute for the national sports events that are broadcast by the JV networks. The DOJ stated in the Disney/Fox transaction that "[f]or MVPDs, sports programming on broadcast television is unlikely a sufficient substitute for cable sports programming," such as RSNs.⁶¹ I therefore have also calculated these rights fee-based shares by excluding the rights fees paid by RSNs. If I do so, the combined share of the JV networks increases to 61 percent (*see* Figure 5, right-hand column).

⁶¹ Disney/Fox Complaint, ¶16.

Figure 5
Market Shares and Combined Market Shares for JV Members
2023



Sources: Citi Research, "Fox Corporation," February 6, 2024, p. 2.

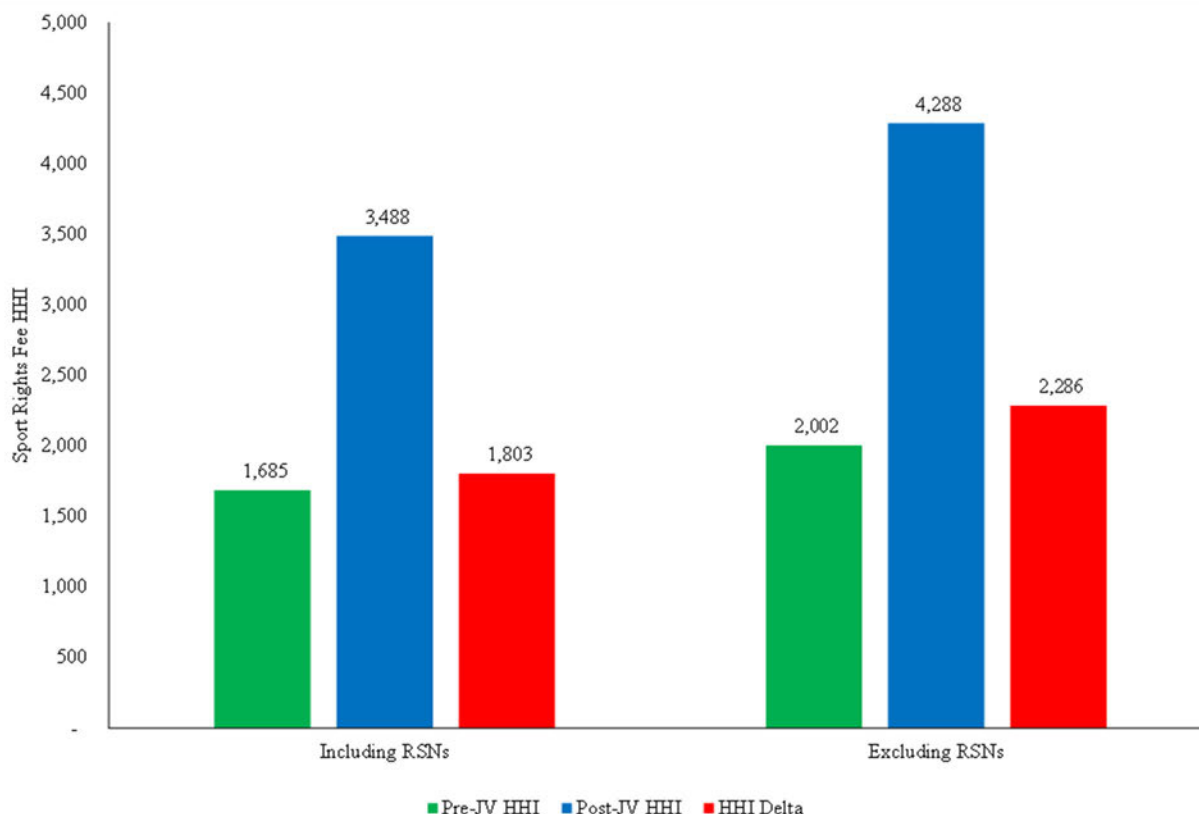
67. I have also calculated a measure of market concentration typically used by US antitrust agencies to determine whether a merger is likely to have adverse effects. As explained in the Horizontal Merger Guidelines, "[t]he Agencies often calculate the Herfindahl-Hirschman Index ("HHI") of market concentration. The HHI is calculated by summing the squares of the individual firms' market shares"⁶² The 2010 Horizontal Merger Guidelines states that "[m]ergers resulting in highly concentrated markets [i.e., those with an HHI above 2500] that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power."⁶³

⁶² 2010 Horizontal Merger Guidelines, p. 18.

⁶³ 2010 Horizontal Merger Guidelines, p. 19. The 2023 merger guidelines include lower thresholds, so I utilize the 2010 guidelines to be conservative.

68. Figure 6 below calculates the HHIs based on the sport rights shares discussed above. My analysis shows that the JV will increase the HHI by between 1,800 (if RSNs are included in the market) and 2,300 (if RSNs are excluded from the market).

Figure 6
HHIs and Change in HHIs Due to the Proposed JV
2023



Sources: Citi Research, "Fox Corporation," February 6, 2024, p. 2.

69. Because the post-JV HHIs are above 2,500 and the change in HHI is well above 200 (whether or not RSNs are part of the market), the 2010 Horizontal Merger Guidelines indicate that the proposed JV is presumed to substantially increase the market power of the JV members. Unlike a traditional merger, however, the JV members will still negotiate unilaterally with each vMVPD and MVPD. But the proposed JV—combined with the fact that the proposed JV will offer a product that the JV members will not allow vMVPDs and MVPDs to offer (*i.e.*, a “skinny bundle”)—will alter those negotiations in ways that will substantially

increase the market power of the JV parties in the sale of sports programming to vMVPDs and MVPDs.

III. THE PROPOSED JOINT VENTURE WILL HARM FUBO, OTHER VMVPDS AND MVPDS AND COMPETITION BY RAISING THE PRICE OF SPORTS NETWORKS

A. FUBO WOULD BE HARMED BY THE PROPOSED JV IN THE DOWNSTREAM MARKET FOR THE SALE OF PAY TV SERVICES TO CONSUMERS

70. Fubo would be harmed by the proposed JV in the market for the sale of pay TV services. This is because the Defendants' JV—in conjunction with their carriage agreements—will reduce Fubo's ability to compete effectively to attract pay TV customers, thereby reducing the price competition between vMVPD and MVPD providers that benefits consumers. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

71. The Defendants recognize that there are some customers that want a “skinny,” sports-focused bundle, and do not want to pay for other linear networks that are more focused on general entertainment or news. Disney CEO Bob Iger recently explained the rationale for Disney's participation in the proposed JV:

[W]e know that there are a number of people who have never signed up for multichannel television. This gives them a chance to do so at a price point that will be obviously more attractive than the big fat bundle. Two, there are people who have left that ecosystem because they didn't want all those channels or that cost.⁶⁵

⁶⁴

[REDACTED]

⁶⁵

Walt Disney Company, “2024 Q1 Earnings Conference Call,” February 7, 2024, p. 17, available at: <https://thewaltdisneycompany.com/app/uploads/2024/01/q1-fy24-earnings-transcript.pdf>

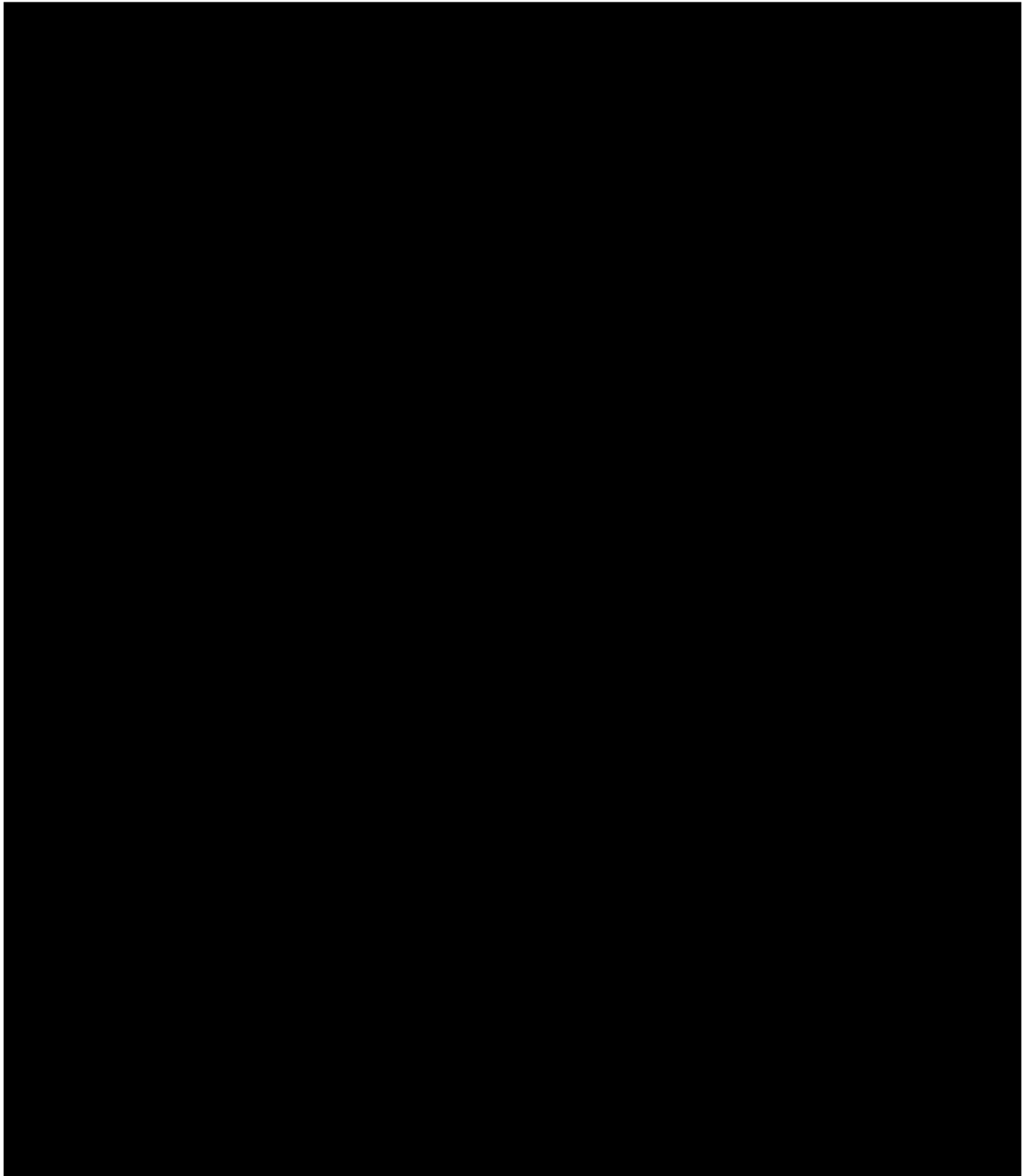
72. But while the Defendants recognize that there are many customers that do not want a “big fat bundle,” their carriage agreements with Fubo make it impossible for Fubo to offer a skinny bundle in competition with the JV. As discussed, Defendants’ contracts only make their sports channels available as part of a bundle of networks in their negotiations with Fubo;; they then also require Fubo to distribute all (or nearly all) of those channels to all of its subscribers. That is, as a condition for accessing the sports programming of the JV partners, these contracts *require* Fubo to only provide a “big fat bundle” and *prohibit* Fubo from offering a skinny bundle.⁶⁶

73. Such a difference in bundling restrictions (i.e., the JV can offer a “skinny bundle” but vMVPDs and MVPDs cannot) creates harm to Fubo (and other vMVPDs and MVPDs). The reason: for those households who want a “skinny bundle” of sports-centric channels, the JV parties will be the only option available to them, insulated from competition from vMVPDs and MVPDs (the market in which the JV partners themselves say they will compete).

74. [REDACTED]

66

[REDACTED]



75. [REDACTED]

76. As a result of these bundling practices, some customers pay more for pay TV services because they are forced to pay for content for which they have little value. Indeed, a review of the channels offered and price points for different programming bundles offered by vMVPDs and MVPDs indicates that the *narrowest* package offered by vMVPDs and MVPDs all offer substantially more channels at higher price points than the proposed JV is likely to—all while offering *fewer* sports networks than the JV will.

77. Table 3 shows the total number of networks included in packages offered by leading vMVPDs and MVPDs and the JV, the total number of JV sports networks included in those packages, and the estimated monthly price of those packages.⁷⁰ While the proposed JV

67 [REDACTED]

68 [REDACTED]

69 [REDACTED]

70 As noted above, S&P Capital IQ suggests that the monthly price of the JV DTC streaming app would be roughly \$40. See Ex. 1, S&P Capital IQ, “How does the proposed ESPN-FOX-WBD sports service stack up against vMVPDs?,” February 23, 2024. See also, Ex. 2, Wells Fargo, “MEDIA – Sports Finally Heads to Streaming,” February 6, 2024. Other statements suggest pricing may be closer to \$50 per month. See

would offer 14 sports-focused channels as well as ESPN+ for an estimated \$40-\$50 per month, for the 14 package/MVPD combinations presented in Table 3 customers would pay an average of \$63 per month—or 58 percent more—to receive only seven of the JV stations, but 106 total channels, many of which customers may not desire.

Deadline, “Fox Expects Sports Streaming Venture With Disney And WBD To Hit 5M Subscribers In 5 Years, Lachlan Murdoch Says” March 4, 2024, available at: <https://deadline.com/2024/03/fox-sports-streaming-disney-warner-bros-discovery-million-subscribers-lachlan-murdoch-1235844971/>

Table 3
Sports Networks, Total Networks, and Prices for vMVPDs, MVPDs, and the JV
Narrowest Package With any JV Channels

Type of Provider	Firm	Package	Price Per Month	Estimated Number of Channels	Number of JV Channels
MVPD	Altice (Optimum)	Basic	\$40.00	50	2
	Cox	Starter	\$61.00	75	2
	DIRECTV	Entertainment	\$69.99	75	6
	Dish	America's Top 120	\$84.99	190	8
	Mediacom (Xstream)	Local	\$10.00	50	2
	Spectrum	Select	\$69.99	155	9
	Verizon (Fios TV)	More Fios	\$109.00	300	12
	Xfinity	Choice	\$20.00	10	2
vMVPD	DIRECTV STREAM	Entertainment	\$79.99	91	6
	Hulu	Hulu with Live TV (with ads)	\$76.99	94	14
	Sling TV	Orange	\$40.00	32	4
	Vidgo	Plus	\$69.99	84	11
	YouTube TV	Base Plan	\$72.99	111	14
vMVPD	Fubo	Pro	\$79.99	164	7
vMVPD	New Joint Venture		\$40.00-\$50.00	14	14
Average		Average	\$63.21	106	7

Sources: vMVPD Channels and Pricing: Capital IQ charts: "Virtual multichannel base package pricing", "Availability of 14 linear networks on select virtual multichannel services."
Spanish and Frndly Channel Lists: <https://tv.youtube.com/welcome/spanish-plan/>,
<https://www.directv.com/shop/dtvi/optimo-mas-package>, <https://www.fubo.tv/welcome/channels>,
<https://try.frndlytv.com/>, <https://www.vidgo.com/plans>.
MVPD Channels and Pricing: <https://www.xfinity.com/digital/offers/plan-builder>,
<https://www.spectrum.com/cable-tv/channel-lineup>, <https://www.directv.com/>,
<https://www.dish.com/programming/channels>, <https://www.verizon.com/home/fios-tv/>,
<https://www.verizon.com/home/fios-tv/channel-lineup/>, <https://www.cox.com/residential/tv.html>,
<https://www.optimum.com/tv>, <https://order.optimum.com/Buyflow/Products>,
<https://shop.mediacomcable.com/>, <https://mediacomtoday-lineup.com/compare-packages.aspx>.

Notes: MVPD channel lists and pricing for Xfinity, Spectrum, Cox, Altice, and Mediacom are based on their offerings in the following locations, respectively: Chicago, New York City, Phoenix, New York City, and Des Moines.

78. For a sports-loving consumer, packages are available from vMVPDs and MVPDs that include more of the desirable live sports content channels included in the proposed JV—but these are even “fatter” bundles and are priced even higher. Table 4 shows the JV channels, total channels, and price points for packages that include the most JV channels. These

packages come closer to replicating the valuable live sports contents of the JV, containing on average 12 of the JV networks. However, to have nearly the content offered in the JV, consumers would have to subscribe to packages that have on average 178 networks and an average price of \$94 per month, or 135 percent more than the estimated JV price.

Table 4
Sports Networks, Total Networks, and Prices for vMVPDs, MVPDs, and the JV
Packages With the Most JV Channels

Type of Provider	Firm	Package	Price Per Month	Estimated Number of Channels	Number of JV Channels
MVPD	Altice (Optimum)	Select	\$115.00	340	14
	Cox	Ultimate	\$152.00	250	14
	DIRECTV	Ultimate	\$114.99	140	12
	Dish	America's Top 200	\$104.99	240	12
	Mediacom (Xstream)	Variety	\$85.00	170	10
	Spectrum	Select	\$69.99	155	9
	Verizon (Fios TV)	More Fios	\$109.00	300	12
	Xfinity	Ultimate	\$80.00	185	14
vMVPD	DIRECTV STREAM	Ultimate	\$119.99	149	12
	Hulu	Hulu with Live TV (with ads)	\$76.99	94	14
	Sling TV	Orange + Blue	\$55.00	45	8
	Vidgo	Plus	\$69.99	84	11
	YouTube TV	Base Plan	\$72.99	111	14
vMVPD	Fubo	Elite	\$89.99	235	11
vMVPD	New Joint Venture		\$40.00-\$50.00	14	14
Average		Average	\$93.99	178	12

Sources: vMVPD Channels and Pricing: Capital IQ charts: "Virtual multichannel base package pricing", "Availability of 14 linear networks on select virtual multichannel services."
Spanish and Frndly Channel Lists: <https://tv.youtube.com/welcome/spanish-plan/>,
<https://www.directv.com/shop/dtvi/optimo-mas-package>, <https://www.fubo.tv/welcome/channels>,
<https://try.frndlytv.com/>, <https://www.vidgo.com/plans>.
MVPD Channels and Pricing: <https://www.xfinity.com/digital/offers/plan-builder>,
<https://www.spectrum.com/cable-tv/channel-lineup>, <https://www.directv.com/>,
<https://www.dish.com/programming/channels>, <https://www.verizon.com/home/fios-tv/>,
<https://www.verizon.com/home/fios-tv/channel-lineup/>, <https://www.cox.com/residential/tv.html>,
<https://www.optimum.com/tv>, <https://order.optimum.com/Buyflow/Products>,
<https://shop.mediacomcable.com/>, <https://mediacomtoday-lineup.com/compare-packages.aspx>.

Notes: MVPD channel lists and pricing for Xfinity, Spectrum, Cox, Altice, and Mediacom are based on their offerings in the following locations, respectively: Chicago, New York City, Phoenix, New York City, and Des Moines.

79. These figures illustrate that the contractual agreements make it impossible for Fubo to compete effectively with the proposed JV's skinny bundle, as those carriage agreements force Fubo into offering "big fat bundles" to offer desirable live sports programming. Not only

will this harm Fubo, but consumers will be deprived of the price competition and innovation that would occur absent those contractual restrictions. As just one example, without these contractual restrictions, each vMVPD and MVPD may put together different “skinny” bundles, competing with each other to develop better product offerings for consumers, as well as competing on the pricing of those skinny bundles. The contractual restrictions, however, prohibit such efforts, forcing consumers to purchase a specific “skinny” bundle determined by the Defendants as part of the JV.

80. As the foregoing discussion indicates, Defendants’ bundling practices in conjunction with the new JV will harm competition by impeding the ability of Fubo and others to compete with the Defendants’ JV. Consumers will likely suffer from reduced competition between Fubo and the proposed JV—and hence less price competition and lower innovation. Consumers would benefit if the Defendants allowed Fubo and others to license and market other packages of sports, news, and entertainment content than the “big fat bundle” that the Defendants’ carriage agreements currently require. One way to mitigate the anticompetitive harm of the proposed JV would be to prohibit Defendants from limiting the flexibility of Fubo and others in how they sell packages of the Defendants’ programming. That is, if Fubo and others were allowed to market and sell “skinny” bundles that were tailored to customer preferences, that would mitigate one element of competitive harm that arises out of the proposed JV.

81. To be sure, such relief would not eliminate all of the anticompetitive harms resulting from the proposed JV. As I explain in Section III.B below, the proposed JV itself will change Defendants’ incentives in a way that will likely result in increased incentives for the Defendants to increase affiliate fees to Fubo and other vMVPDs and MVPDs, which in turn will ultimately result in higher prices to consumers.

B. THE JV WOULD HAVE THE INCENTIVE TO RAISE PRICES OF SPORTS NETWORKS TO RIVAL VMVPDS AND MVPDS, THUS HARMING COMPETITION

82. As discussed in Section II.C above, the proposed JV will increase the market power of the JV members in the sale of sports programming to MVPDs and vMVPDs, and will give each party to the JV the incentive and ability to substantially increase prices in that relevant market.

83. Today, the Defendants' unilateral economic incentives to increase the affiliate fees they charge to MVPDs and vMVPDs are constrained by at least two effects.

84. First, increases in the affiliate fees paid to networks will result in MVPDs and vMVPDs raising prices to consumers.⁷¹ In turn, price increases to consumers would result in declines in subscribership to MVPDs and vMVPDs.⁷² Because networks, as noted above, are paid per subscriber per month, increases in the affiliate fees collected by networks are offset by declines in the number of subscribers, which would dampen the incentive to raise prices, because some of the increases in prices would result in lower revenue to the networks. To take a hypothetical example, suppose a network charged an MVPD with 10 subscribers an affiliate fee of \$10 per customer per month. In that case the network would earn \$100 in revenue per month. Now suppose the network increased its affiliate fee to \$11 per month, which resulted in a price increase to customers which caused one customer to cancel its MVPD subscription. In that case the network would earn \$99 per month. While the ultimate effect on the network's pricing decision would be determined by the rate at which the MVPD or vMVPD passes on programming costs to customers and the price elasticity of demand for that MVPD's services, this simple example illustrates that networks must recognize that their pricing choices can affect the total subscribership of their MVPD distributors.

85. Second, currently, the availability of sports programming from multiple Defendants provides some constraint on the ability of any one Defendant to raise affiliate fees to an vMVPD or MVPD. This is because if any individual Defendant unilaterally raised their prices to vMVPDs and MVPDs, each vMVPD/MVPD could play one provider of sports programming off against another in trying to negotiate lower affiliate fees or better terms.

86. Following the launch of the JV, both effects would be weakened. First, because the Defendants will now have a JV that competes with vMVPDs and MVPDs, if the higher affiliate fees charged by the Defendants resulted in lost vMVPD/MVPD subscribership, some

⁷¹ See Footnote 14 above.

⁷² Recent economic literature estimates that the own-price elasticity of demand for cable MVPDs is -1.69 and for satellite providers is between -2.90 (for DirecTV) and -4.15 (for Dish). See Gregory Crawford, Robin Lee, Michael Whinston, and Ali Yurukoglu, "The Welfare Effects of Vertical Integration in Multichannel Television Markets," *Econometrica*, Vol. 86, Issue 3, May 2018. p. 925.

of those lost subscribers would be “recaptured” by the new JV. That is, if a subscriber—in particular, a subscriber that watches sports programming—cancels his or her Fubo subscription because the monthly fee is too high, he or she may sign up for the lower priced “skinny bundle” of sports programming offered by the JV. Thus, some of the revenue and profits that a JV member would forgo by raising prices to Fubo (or other vMVPDs/MVPDs) would be recouped by the profits earned by increased subscribership for the JV.

87. Second, because each JV member would know that each other member of the JV would have the unilateral incentive to raise prices to vMVPDs/MVPDs, each distributor would have a decreased ability to play the Defendants off against each other, resulting in further upward pricing pressure. For example, Fubo currently contracts for programming that includes significant live sports content from Disney and Fox, but does not do so from WBD. Currently, if Fox is negotiating with Fubo over the license fees and other terms of its content, it knows that Fubo can walk away from the Fox package and attempt to replace it with the WBD package should Fox demand too high a price—and WBD would likely find it advantageous to replace Fox as a provider of live sports programming to Fubo. However, after the JV is launched, both Fox and WBD will recognize that Fubo has less bargaining leverage, because Fox and WBD will each recognize each other’s ability to recapture lost sales through the JV, thereby increasing each other’s unilateral incentives to raise prices. This in turn means that Fox will recognize that WBD has a reduced incentive to compete for Fubo’s business, and hence will not constrain Fox’s ability to negotiate for higher prices from Fubo.

88. The increased incentives to raise prices to purchasers of sports programming (the vMVPDs and MVPDs) creates a direct antitrust injury to the firms like Fubo that are participants and direct purchasers in that market.

89. Both of the above effects would increase the bargaining leverage of Defendants in their negotiations with Fubo and other vMVPDs and MVPDs. All other factors equal, this increase in bargaining leverage would lead to increases in the affiliate fees that the Defendants would charge to Fubo and other distributors.

90. Further, to the extent that the JV would allow the Defendants to better coordinate their pricing strategies—either through a recognition of their mutual incentives to raise affiliate fees or through increased information sharing about their negotiations with vMVPDs and

MVPDs—such tacit or explicit coordination would further increase the bargaining leverage of the Defendants and hence provide additional upward pricing pressure.

91. Finally, economic models of bargaining suggest that the introduction of a differentiated product by a vertically integrated supplier—such as the skinny sports-focused bundle the JV seeks to introduce—can lead to higher wholesale and retail prices if the integrated supplier can impose vertical restrictions on unaffiliated distributors that prohibit them from offering a competing product.⁷³ These same models indicate that the introduction of a new differentiated downstream product by *colluding* upstream firms accentuates the price effects.

92. In sum, the basic competitive harm from the proposed JV is direct and clear. By creating this jointly controlled streaming product—in competition with Fubo and other vMVPDs and MVPDs—the Defendants strengthen their bargaining position in the relevant market for the sale of sport network programming to MVPDs and vMVPDs, which will result in higher prices. The Defendants will know that they can increase prices because if negotiations fail, more subscribers will depart the MVPD or vMVPD for their new streaming app, jointly owned by the Defendants. The internalization of that diversion will create upward pressure on programming prices, which is a clear and unambiguous harm to competition. And that upward pricing pressure will likely lead to increased costs and reduced profits to Fubo, resulting in antitrust injury to Fubo.

C. THE HARMS TO FUBO ARE NOT JUSTIFIED BY EFFICIENCY RATIONALES

93. Defendants may assert that their bundling practices are not anticompetitive, but simply a vertical restriction that allows them to efficiently distribute their programming. However, marketplace evidence refutes such a claim.

⁷³ See, e.g., Ex. 21, Daniel P. O'Brien and Greg Shaffer, "Vertical Control with Bilateral Contracts," *The RAND Journal of Economics*, Autumn 1992, Vol. 23 No. 3, pp. 299-308. See also Ex. 22, R. Preston McAfee and Marius Schwartz, "Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity," *American Economic Review*, March 1994, Vol. 84 No. 1, pp. 210-230; Ex. 23, Oliver Hart and Jean Tirole, "Vertical Integration and Market Foreclosure," *Brookings Papers: Microeconomics*, 1990, pp. 205-276.

94. A vertical restriction is a contractual term between a manufacturer and a distributor that imposes limitations on the way in which the distributor sells the manufacturer's products. Common examples of vertical restrictions include requirements that a distributor sell a minimum number of units, that distributors have exclusive territories, that distributors do not sell competing products, or that distributors not sell products that compete with those made by the manufacturer. Vertical restrictions are often competitively benign or even procompetitive, even though they to some degree limit competition as they encourage additional efforts to sell the product—resulting in procompetitive increases in output. As explained by a leading textbook, beneficial vertical restrictions are often common because manufacturers desire their products to be distributed as efficiently as possible:

Any manufacturer, even one with substantial market power, wants its product distributed at the lowest cost. Distribution is viewed by the manufacturer as an input necessary to make a sale, just as a raw material is an input in the manufacturing process. A monopolist manufacturer tries to distribute the product as efficiently as possible, just as it tries to produce the good at the lowest cost.⁷⁴

95. However, the proposed JV itself is marketplace evidence that the contractual restrictions imposed upon Fubo by Defendants are *not* the efficient method of distributing Defendants programming networks. The JV demonstrates that while, for example, Disney conditions distribution of ESPN by Fubo on licensing 19 other networks and also requires that nearly all of these networks are distributed to all of Fubo's customers, it does not impose those same vertical restrictions on its own method of distribution (the affiliated JV). Thus, the vertical restrictions that Disney imposes upon Fubo do *not* appear to be linked with more efficient distribution. Because these vertical restrictions reduce the ability of Fubo to compete effectively in distributing video programming, without any correlated efficiency benefits, it is likely that these vertical restrictions have anticompetitive consequences overall.

96. Defendants may also claim—as they did with the announcement of the JV – that consumers will benefit from reduced “friction” in the viewing experience because consumers

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Ex. 24, Dennis W. Carlton and Jeffrey M. Perloff (2005), “Modern Industrial Organization”, 4th ed., Boston: Pearson/Addison-Wesley, pp. 425-426.

can more easily find what channel certain sport events are on.⁷⁵ However, such an argument must be viewed against the backdrop that other *independent* services—such as Amazon’s Fire TV—have developed ways for consumers to search for sports content (as well as other content) across various *competing* apps.⁷⁶ Thus, it appears as though consumers could obtain these types of benefits without the proposed JV, which suggests that they should not be attributed to the proposed JV.⁷⁷

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.



Jonathan Orszag

April 7, 2024

⁷⁵ Deadline, “Warner Bros. Discovery Chief David Zaslav On How Sports Streaming Bundle With Disney And Fox Will Help Viewers: “You Won’t Be Thinking, ‘What Channel Is It On?’” February 23, 2024. available at: <https://deadline.com/2024/02/warner-bros-discovery-david-zaslav-sports-streaming-bundle-disney-fox-1235835150/>

⁷⁶ See Amazon, “Why Fire TV?”, available at: <https://www.amazon.com/b?node=23477575011>

⁷⁷ Federal Trade Commission and the U.S. Department of Justice, “Antitrust Guidelines for Collaborations among Competitors.” April 2000. available at: https://www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf

APPENDIX A: CURRICULUM VITAE



CURRICULUM VITAE

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PROFESSIONAL EXPERIENCE:

- **Senior Consultant**, Compass Lexecon (previously Competition Policy Associates, Inc. ("COMPASS") and before that, Sebago Associates, Inc.), November 2023-Present and Senior Managing Director, March 2000-November 2023. Until November 2023, manage economic consulting firm specializing in antitrust, economic policy, and litigation matters and serve as a member of the firm's Executive Committee. Conduct economic and financial analysis on a wide range of complex issues involving mergers, litigation, public policy, and regulations for corporations and public-sector entities. Serve as expert witness in proceedings before U.S. and international courts and administrative agencies and the European Court of First Instance on competition policy issues, including industry structure, vertical relationships, valuation matters, and intellectual property rights.
- **Assistant to the Secretary and Director of the Office of Policy and Strategic Planning**, U.S. Department of Commerce (Washington, D.C.), March 1999-March 2000. Served as the Secretary of Commerce's chief policy adviser. Responsible for coordinating the development and implementation of policy initiatives within the Department. Worked on a wide range of issues, from implementing the steel loan guarantee program to telecommunications and e-commerce issues. Represented the Secretary of Commerce in meetings with other government officials and outside organizations, and testified before Congress on behalf of the Department on budget and Native American economic development issues.
- **Economic Policy Advisor**, National Economic Council, The White House (Washington, D.C.), August 1997-March 1999; Assistant Director, January 1996-November 1996. Coordinated policy processes on a wide range of issues, from Social Security reform to job training reform, unemployment insurance reform, homeownership and low-income housing issues, the minimum wage, and Individual Development Accounts. Responsible for helping to coordinate the Administration's daily economic message and to promote (and defend) President Clinton's economic record.

- **Economics Teacher**, Phillips Exeter Academy Summer School (Exeter, New Hampshire), June 1997-August 1997. Taught introductory economics at Phillips Exeter Academy Summer School.
- **Economic Consultant**, James Carville (Washington, D.C.), August 1995-January 1996. Helped James Carville, President Clinton's 1992 campaign strategist, research and write his *New York Times* #1 best-selling book, *We're Right, They're Wrong: A Handbook for Spirited Progressives*.
- **Special Assistant to the Chief Economist**, U.S. Department of Labor, (Washington, D.C.), August 1994-August 1995. Served as an economic aide to the Chief Economist (Alan B. Krueger) and the Secretary of Labor (Robert B. Reich).

Volunteer Positions

- **Director of Policy Preparations for Vice Presidential Debate**, Gore-Lieberman Presidential Campaign, September 2000-October 2000. Oversaw policy preparations for Democratic Vice Presidential candidate before his debate with the Republican Vice Presidential candidate.
- **Weekly Commentator**, *Wall Street Journal Online*, September 2004-November 2004. Commented on economic issues during the 2004 presidential campaign. Topics of weekly commentary included jobs, health care, energy, trade, taxes, tort reform, appointments, and fiscal policy.

EDUCATION:

- Oxford University, M.Sc. in Economic and Social History, 1997.
- Princeton University, A.B. *summa cum laude* in Economics, 1996.
- Phillips Exeter Academy, graduate with High Honors, 1991.

HONORS, PROFESSIONAL ASSOCIATIONS, AND APPOINTMENTS:

- Phi Beta Kappa, inducted June 1996.
- Marshall Scholar, 1996.
- *USA Today* All-USA College Academic Team, 1996.
- Corporation for Enterprise Development Leadership Award for “Forging Innovative Public Policies to Expand Economic Opportunity in America,” 1999.
- *Who's Who in America*, 2001-Present; Also, *Who's Who in the World*; *Who's Who in Science and Engineering*; *Who's Who in Finance and Business*; and *Who's Who of Emerging Leaders*.
- California Workforce Investment Board, 2000-2003.
- California Governor's Technology Advisory Group, 2000-2003.
- Adjunct Lecturer, University of Southern California (Los Angeles, CA), January 2002-June 2002.
- *Global Competition Review's* “40 under 40: The World's 40 Brightest Young Antitrust Lawyers and Economists,” 2004.

- *Global Competition Review's* "Best Young Competition Economists," 2006.
- *The International Who's Who of Competition Economists*, 2007-Present.
- LawDay Leading Competition Economics Experts, 2009-Present.
- Expert Guides, Best of the Best USA, 2011-Present.
- Fellow, University of Southern California's Center for Communication Law & Policy, 2007-2015.
- FTI Consulting Inc., Founders Award, 2008.
- Senior Fellow, Center for American Progress, 2009-2016.
- Lecturer, University of California at Los Angeles (UCLA), School of Law, 2018.
- Board of Directors, Sebago Associates, Inc., 2000-2007; Competition Policy Associates, Inc., 2003-2006; The First Tee of Washington, DC, 2005-2011; Ibrix, Inc. (Sold to Hewlett-Packard), 2006-2007; JMP Securities, Inc. (NYSE: JMP) (Sold to Citizens Bank Group), 2011-2021; TGR Foundation (formerly Tiger Woods Foundation), Board of Governors, 2012-Present; Children's Golf Foundation, 2013-2017; Friends of the Global Fight Against AIDS, Tuberculosis, and Malaria, 2013-Present; Board of Governors, The First Tee, 2019-Present; Member, One River Asset Management Academic and Regulatory Advisory Council (sold to Coinbase), 2021-2023; Member, Coinbase Asset Management Academic and Regulatory Advisory Council, 2023-Present.
- Clinton Global Initiative, Member, 2008-2016; Grassroot Soccer, Ambassadors Council, 2010-2019; The First Tee, Trustee, 2013-Present; Good+ Foundation, Fatherhood Leadership Council, 2017-Present.
- Member of the American Economic Association, the Econometric Society, the American Finance Association, and the United States Golf Association.

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- “Quantifying the Benefits of More Stringent Aircraft Noise Regulations,” with Peter R. Orszag, Northwest Airlines and Sebago Associates, Inc., October 2000.
- “All That Glitters Is Not Gold: The Feldstein-Liebman Analysis of Reforming Social Security with Individual Accounts,” with Peter R. Orszag, Center on Budget and Policy Priorities, April 26, 2000.
- “Would Raising IRA Contribution Limits Bolster Retirement Security For Lower- and Middle-Income Families or Is There a Better Way?” with Peter R. Orszag, Center on Budget and Policy Priorities, April 12, 2000.
- “The Economics of the U.S.-China Air Services Decision,” with Peter R. Orszag, and Diane M. Whitmore, United Parcel Service and Sebago Associates, Inc., March 2000.

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- “Hitting Budget Numbers May Be Up for Auction,” *Roll Call*, December 19, 2013.
- “Jack Welch Could Help Improve U.S. Jobs Data,” with Peter R. Orszag, *Bloomberg*, October 9, 2012.
- “Giving Credit Where Credit Is Due,” *The Hill*, December 2, 2011.
- “PBMs Save Us Billions,” *The Hill*, November 28, 2011.
- “Drug Patent Settlements,” with Robert D. Willig, *New York Times*, July 19, 2010.
- “Homeowners Defense Act Could Lower Insurance Premiums,” *Treasure Coast Palm*, September 24, 2009.
- “Katrina Teaches Us To Financially Prepare Today for the Catastrophe of Tomorrow,” *San Angelo Standard-Times*, September 23, 2009.
- “A Catastrophe Waiting To Happen,” *The Daily Citizen*, September 15, 2009.
- “Broadband: Now A ‘Necessity’,” *Multichannel News*, August 10, 2009.
- “Forget the Estate Tax: America Needs An Inheritance Tax,” *Ideas Primary*, January 23, 2008, available at <http://www.ideasprimary.com/?p=442>
- “Credit Where It’s Due,” *Wall Street Journal*, October 25, 2007.
- “Congress Grounds Delivery Competition,” Sebago Associates, Inc., April 17, 2003.
- “Paul O’Neill Doesn’t Cry for Argentina,” Sebago Associates, Inc., August 3, 2001.
- “Do You Recognize The Clinton West Wing in *The West Wing*?” *The Atlantic Monthly Online*, March 2001.

SPEECHES AND PRESENTATIONS:

- “Lessons from the DE&I Battlefield: What Lawyers and Economists Can Learn From Each Other,” Panelist at American Bar Association Session, July 8, 2021.
- Keynote, Investment Education Symposium in connection with the Louisiana Trustee Education Council (LATEC), New Orleans, Louisiana, February 28, 2019.
- “Challenges in the Negotiation of Remedies in Mergers & Acquisitions,” Panelist at IBRAC’s 24th Annual International Seminar on Competition Law,” Sao Paulo, Brazil, October 24, 2018.
- “Industry Professional Panel,” Panelist at Music Industry Research Association, Los Angeles, CA, June 26, 2018.
- “The Amex Decision: Turning the Tables?” Panelist at Concurrences Review and Fordham University School of Law, “Antitrust in the Financial Sector: Hot Issues & Global Perspectives,” New York, NY, May 3, 2018.
- “Views from the Trenches: Anthem/Cigna and Aetna/Humana,” Panelist at the 66th American Bar Association Section of Antitrust Law Spring Meeting, Washington, DC, April 11, 2018.
- “Consolidation Craze,” Moderator at UCLA Law Entertainment Symposium, “Progress is Paramount — Why Hollywood Will Always Matter,” Los Angeles, CA, March 24, 2018.

- “Setting the Stage: State Involvement in A Market Economy,” Panelist at Concurrences Review and New York University School of Law Conference on “Antitrust in Emerging and Developing Economies: Africa, Brazil, China, India, Mexico...,” New York, NY, October 23, 2015.
- “Office Superstores: What Changed in 15 Years?” Panelist on ABA Section of Antitrust Law, Economics and Mergers & Acquisitions Committees, Washington, DC, January 6, 2014.
- “Five Bars: Spectrum Policy and the Future of the Digital Economy,” Panelist at Third Way Briefing, House of Representatives, Washington, DC, December 11, 2013.
- “An Economic Perspective on Reverse Payment Settlements in the Pharmaceutical Sector,” Speech to the Generic Pharmaceutical Association 2013 Annual Meeting, Orlando, Florida, February 21, 2013.
- “Navigating Our Economic Challenges and the Role of Public Policy,” Speech to the South Carolina Manufacturers Alliance Fourth Annual Textile Summit, Spartanburg, South Carolina, January 10, 2013.
- “Upward Price Pressure and Merger Analysis: What Is UPP’s Proper Role and How Can UPP Deal With Real-World Issues?” Presentation to Gilbert + Tobin, Sydney, Australia, December 4, 2012.
- “Obama’s Second Term: What It Means for the U.S. and World Economies,” FTI Consulting, Inc., Brisbane, Australia, December 3, 2012.
- “Merger Substance: How to Conduct a Proper Analysis of a Merger’s Competitive Effects, and How to Frame Related Legal Standards?” Panelist at Antitrust in Asia, American Bar Association, New Delhi, India, December 1, 2012
- “Financial Issues in College Sports,” Panelist at the Third Annual Sports Law Symposium: What is the Proper Role of Sports in Higher Education?, Institute of Sports Law and Ethics, Santa Clara University, September 6, 2012.
- “Pricing and Bundling of IT Products: Drawing The Line Between Lawful and Unlawful Behaviour,” Panelist on GCR Live’s Antitrust and Technology 2012, London, England, March 14, 2012.
- “The Role of Economic Evidence in Cartel Enforcement,” Speaker on ABA Section of International Law Teleconference, February 28, 2012.
- “Reverse Payment Settlements in the Pharmaceutical Industry,” Presentation to the House Energy and Commerce Committee Staff, July 15, 2011.
- “Increased Government Intervention: The Good, The Bad, and the Ugly,” Panelist, Association of Management Consulting Firms, New York, NY, December 2, 2010.
- “The Economic Challenges and Trade-Offs Facing the Obama Administration,” Remarks to RBS Citizens, Boston, MA, June 8, 2010.
- “Competition Policy As Innovation Policy,” Panelist, Computer & Communications Industry Association, Washington DC, October 27, 2009.
- “State of the Market: Regulatory Evolution and Policy,” Moderator, Youth, I.N.C. and Piper Jaffray, New York, NY, September 29, 2009.
- “The Empirical Effects of Collegiate Athletics,” Presentation to the NCAA Leadership Advisory Board, Detroit, Michigan, April 4, 2009.

- “The Economic Challenges and Trade-Offs Facing the Obama Administration,” Remarks to the Junior Capital Group, Proskauer Rose, LLP, New York, NY, February 10, 2009.
- “Managing Communications During Unprecedented Economic Times,” Panelist, The California Club, Los Angeles, CA, January 27, 2009.
- Presentation to the Computer & Communications Industry Association’s Antitrust Summit on Innovation and Competition Policy in High-Tech Markets, Washington DC, October 24, 2008.
- Presentation to the Center for American Progress Action Fund Session on the “Avoiding the Pitfalls of Credit Card Debt,” Washington, DC, February 25, 2008.
- “Distribution Fund Planning and Management: Lessons Learned from the Global Research Analyst Settlement,” with Francis McGovern, Presentation to the Securities and Exchange Commission, Washington, DC, January 31, 2006.
- “The Empirical Effects of Division II Intercollegiate Athletics,” Presentation to the National Collegiate Athletic Association 2006 Annual Convention, Indianapolis, Indiana, January 8, 2006.
- “Rules of the Game: Defining Antitrust Markets in Cases Involving Sports,” Presentation to the Wilmer, Cutler, Pickering, Hale & Dorr Antitrust Lunch, Washington, DC, December 8, 2005.
- “Competition Policy, Antitrust, and The High-Tech Economy,” Keynote Address to the Computer & Communications Industry Association TechSummit 2005, Laguna Beach, CA, October 26, 2005.
- “The Empirical Effects of Division II Intercollegiate Athletics,” Presentation to the Division II Chancellors and Presidents Summit, Orlando, FL, June 25, 2005.
- “The Empirical Effects of Collegiate Athletic Spending: An Update and Extension,” Presentation to the President’s Task Force on the Future of Intercollegiate Athletics, Tucson, AZ, June 9-10, 2005.
- “The Empirical Effects of Collegiate Athletic Spending: An Update and Extension,” Presentation to the NCAA Division I Board of Directors, Indianapolis, IN, April 28, 2005.
- “An Analysis of Division II Athletic Expenditures: Preliminary Findings,” Presentation to the NCAA Division II Board of Directors, Indianapolis, IN, April 28, 2005.
- “An Analysis of Division II Athletic Expenditures: An Overview of Study Design,” Presentation to the National Collegiate Athletic Association 2005 Annual Convention, Grapevine, Texas, January 8, 2005.
- “The Empirical Effects of Collegiate Athletic Spending: An Interim Report,” Presentation to the National Association of State Universities and Land Grant Colleges Annual Conference, November 17, 2003.
- “The Impact of Asbestos Liabilities on Workers in Bankrupt Firms,” *South Texas Law Review*, “Symposium: Asbestos Litigation,” Fall 2003.
- “The Impact of Asbestos Liabilities on Workers in Bankrupt Firms,” Presentation to the Conference on “Understanding Asbestos Litigation: The Genesis, Scope, and Impact,” U.S. Chamber of Commerce, Washington, DC, January 23, 2003.
- “The Process of Economic Policy-Making During the Clinton Administration,” Presentation to the Conference on “American Economic Policy in the 1990s,” Center for Business and

Government, John F. Kennedy School of Government, and Harvard University, Cambridge, MA, June 29, 2001.

- “The Impact of Paying for College on Family Finances,” Presentation to the Conference on “Funding Excellent Schools and Colleges for All Students,” National Conference of State Legislatures, Savannah, Georgia, February 17, 2001.
- “China and the Internet,” Remarks on Entertainment and the Internet in China at the EMASIA 2000 Forum, The Asia Society, Los Angeles, CA, May 23, 2000.
- “Is It The Star or Just an Extra? The Role Government Plays in a Digital Economy,” Remarks on the Regulation of Global Electronic Commerce at the eCommerce and Global Business Forum, The Anderson School at UCLA and the University of Washington Business School, Santa Cruz, CA, May 18, 2000.
- “Lessons Learned from the Emergency Loan Guarantee Programs,” Keynote Address at the Government Guaranteed Lending 2000 Conference, Coleman Publishing, Inc., May 4, 2000.
- “Don’t Just Think, Believe,” Remarks to the Assembly of Phillips Exeter Academy, Exeter, New Hampshire, February 9, 1999.

TESTIMONY BEFORE REGULATORY AGENCIES/CONGRESS:

- *Petition for Rulemaking to Adopt Revised Competitive Switching Rules: Reciprocal Switching*, STB Ex Parte No. 711 (Sub-No. 1), Before the Surface Transportation Board, with Yair Eilat (Verified Statement: February 14, 2022; Hearing: March 15, 2022).
- *In the Matter of Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as Amended By the Cable Television Consumer Protection and Competition Act of 1992*, MB Docket No. 05-311, Before the Federal Communications Commission, December 14, 2018.
- “A Response to the Economic Report of Gregory Rosston and Anderzej Skrzypacz, ‘Using Auctions and Flexible-Use Licenses to Maximize the Social Benefits From Spectrum,’” with Maya Meidan, Before the Federal Communications Commission, GN Docket No. 14-177, November 9, 2017
- *Review of Commodity, Boxcar, and TOFC/COFC Exemptions*, Docket No. EP 704 (Sub-No 1), Before Surface Transportation Board, with Mark Israel (Verified Statement: July 26, 2016; Reply Verified Statement: August 26, 2016).
- *Division of Insurance Regulation v. Aetna, Inc. and Humana, Inc.*, In the Department of Insurance, Financial Institution, and Professional Registration, State of Missouri, (Case No. 160325191C), (Hearing Testimony: May 16, 2016).
- *In the Matter of AT&T Mobility, LLC v. Iowa Wireless Services, LLC*, in File No. EB-15-MD-007, Before the Federal Communications Commission (Declaration: October 21, 2015; Reply Declaration: February 5, 2016).
- *In the Matter of World Call Interconnect, Inc. v. AT&T Mobility LLC*, in File No. EB-14-MD-011, Before the Federal Communications Commission (Declaration: November 5, 2014).
- Hearing on “Pay-for-Delay Deals: Limiting Competition and Costing Consumers,” Testimony to the Senate Judiciary Committee, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, July 23, 2013.

- Hearing on “The Express Scripts/Medco Merger: Cost Savings for Consumers or More Profits for the Middlemen?” Written Testimony to the Senate Judiciary Committee, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, December 6, 2011.
- *In the Matter of Applications of AT&T Inc. and Deutsche Telekom AG For Consent To Assign or Transfer Control Licenses and Authorization*, in WT Docket No. 11-65, with Robert D. Willig and Jay Ezrielev, Submitted to the Federal Communications Commission, Commissioned by AT&T, June 9, 2011.
- “Response to Supplementary Comments of Hubert Horan,” Submitted to the Department of Transportation, *Joint Application of Delta Airlines, Inc.; Virgin Blue Airlines PTY LTD; Virgin Blue International Airlines PTY LTD d/b/a V Australia; Pacific Blue Airlines (NZ) LTD; and Pacific Blue Airlines (Aust) PTY LTD*, with Mark Israel, Bryan Keating, and Robert D. Willig, Docket DOT-OST-2009-0155, Commissioned by Delta Air Lines, October 22, 2010.
- “Measuring Consumer Benefits from Antitrust Immunity for Delta Air Lines and Virgin Blue Carriers,” Submitted to the Department of Transportation, *Joint Application of Delta Airlines, Inc.; Virgin Blue Airlines PTY LTD; Virgin Blue International Airlines PTY LTD d/b/a V Australia; Pacific Blue Airlines (NZ) LTD; and Pacific Blue Airlines (Aust) PTY LTD*, with Mark Israel, Bryan Keating, and Robert D. Willig, Docket DOT-OST-2009-0155, Commissioned by Delta Air Lines, October 13, 2010.
- *In the Matter of Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, with Allan Shampine, Submitted to the Federal Communications Commission (WC Docket No. 07-245; GN Docket No. 09-51), Commissioned by the Edison Electric Institute, Declaration Submitted on October 4, 2010; Supplemental Declaration, Submitted on December 14, 2010.
- *In Re: Cable Subscribership Survey For the Collection of Information Pursuant to Section 612(g) of the Communications Act*, with Michael Katz and Theresa Sullivan, Submitted to the Federal Communications Commission (MB Docket No. 07-269), Commissioned by the National Cable & Telecommunications Association, DIRECTV, and DISH Network, December 16, 2009.
- *In The Matter of Applications for the Transfer of Control of Licenses and Authorizations From Centennial Communications Corp. to AT&T*, with Robert D. Willig and J. Loren Poulsen, Submitted to the Federal Communications Commission, Commissioned by AT&T, November 21, 2008.
- *In The Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992; Development of Competition and Diversity in Video Programming Distribution: Section 628(c)(5) of the Communications Act; Sunset of Exclusive Contract Prohibition; Review of the Commission’s Program Access Rules and Examination of Programming Tying Arrangements*, Filed in Conjunction With Reply Comments Submitted to the Federal Communications Commission (MB Docket No. 07-29; MB Docket No. 07-198), Commissioned by Discovery Communications, Inc., February 12, 2008.
- *In The Matter of Applications for the Transfer of Control of Licenses and Authorizations From Dobson Communications to AT&T*, with Robert D. Willig, Submitted to the Federal Communications Commission, Commissioned by AT&T, July 12, 2007.
- *In The Matter of Satellite Home Viewer Extension and Reauthorization Act of 1994*, with Jay Ezrielev, Submitted to the Library of Congress, Copyright Office (Docket No. RM 2005-07), Commissioned by EchoStar Satellite L.L.C., September 1, 2005.

- *In The Matter of Rainbow DBS Company, LLC, Assignor, and EchoStar Satellite L.L.C., Assignee, Consolidated Application for Consent to Assignment of Space Station and Earth Station Licenses, and related Special Temporary Authorization*, with Simon J. Wilkie, Submitted to the Federal Communications Commission (IB Docket No. 05-72), Commissioned by EchoStar Satellite L.L.C. and Rainbow DBS Company, LLC, April 12, 2005.
- *In The Matter of Applications for the Transfer of Control of Licenses and Authorizations From Western Wireless Corporation to ALLTEL Corporation*, with Robert D. Willig and Yair Eilat, Submitted to the Federal Communications Commission (WT Docket No. 05-50), Commissioned by ALLTEL Corporation and Western Wireless Corporation, March 29, 2005.
- *In The Matter of A La Carte and Themed Tier Programming and Pricing Options for Programming Distribution on Cable Television and Direct Broadcast Satellite Systems*, with Robert D. Willig and Jay Ezrielev, Filed in Conjunction With Comments Submitted to the Federal Communications Commission (MB Docket No. 04-207), Commissioned by Discovery Communications, Inc., July 15, 2004.
- “An Economic Assessment of the Exclusive Contract Prohibition Between Vertically Integrated Cable Operators and Programmers,” with Peter R. Orszag and John M. Gale, Filed in Conjunction With Reply Comments Submitted to the Federal Communications Commission (CS Docket No. 01-290), Commissioned by EchoStar Satellite Corporation and DIRECTV, Inc., January 7, 2002
- Hearing on “The Department of Commerce Fiscal Year 2001 Budget and Its Native American Initiatives,” Testimony to the United States Senate Indian Affairs Committee, February 23, 2000.
- Hearing on “Testimony on S. 614: The Indian Tribal Regulatory Reform and Business Development Act,” Testimony to the United States Senate Indian Affairs Committee, May 19, 1999.

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- *City of Creve Coeur, Missouri et al., v. DirecTV, LLC, Dish Network Corp., and Dish Network LLC*, In the Circuit Court of St. Louis County, Missouri (Case No. 18SL-CC02821-01 Div.17), (Expert Report: November 17, 2023; Deposition Testimony: January 8, 2024).
- *In Re: Cambridge Lane, LLC et al., v. J-M Manufacturing Company, Inc.*, United States District Court for the Central District of California (Case No. 2:10-CV-10-006638 GW PJW), (Expert Report: October 2, 2023; Deposition Testimony: November 29, 2023).
- *Federal Trade Commission et al. v. Amgen Inc. & Horizon Therapeutics Plc.*, In the District Court for the Northern District of Illinois Eastern Division, (Case No. 23-CV-3053), (Expert Report & Declaration: August 21, 2023).
- *In Re Automatic Card Shufflers Litigation*, In the Court of the Northern District of Illinois (Master File No. 1:21-CV-01798), (Expert Report: August 20, 2023; Deposition Testimony: November, 7, 2023).
- *Mesabi Metallics Company LLC (F/K/A Essar Steel Minnesota LLC) v. Cleveland-Cliffs Inc. et al*, In the United States Bankruptcy Court for the District of Delaware (Adv. Proc. No. 17-51210 (CTG)), (Expert Report: July 28, 2023; Deposition Testimony: October 13, 2023).

- *In re Evanston Northwestern Healthcare Corporation Antitrust Litigation*, In the Court of the Northern District of Illinois (Master File No. 07-CV-4446), (Expert Report: April 21, 2023; Deposition Testimony: May 26, 2023).
- *In re CBS Corporation Stockholder Class Action and Derivative Litigation*, In the Court of Chancery of the State of Delaware (Consolidated C.A. No. 2020-0111-SG), (Rebuttal Expert Report: March 14, 2023; Deposition Testimony: April 11, 2023).
- *Fusion Elite All Stars, et al., v. Varsity Brands, LLC, et al.*, United States District Court, Western District of Tennessee (Case No. 2:20-cv-02600-SHL-TEMP), (Expert Report: September 23, 2022; Deposition Testimony: November 11, 2022).
- *Jessica Jones, et al., v. Bain Capital Private Equity, et al.*, United States District Court, Western District of Tennessee (Case No. 2:20-cv-02892-SHL-TEMP), (Expert Report: September 23, 2022; Deposition Testimony: November 15, 2022).
- *Jane Doe, et al., on behalf of themselves and all others similarly situated v. MEDSTAR HEALTH, INC., et al.*, In the Circuit Court for Baltimore City (Case No. 24-C-20-000591), (Expert Report: August 16, 2022; Deposition Testimony: November 17, 2022; Amended Expert Report: January 31, 2024).
- *Djeneba Sidibe, et al., v. Sutter Health*, United States District Court, Northern District of California (Class Action Case no. 3: 12-cv-4854-LB), (Expert Report: November 19, 2021; Trial Testimony: March 7, 2022).
- *Chase Manufacturing, Inc., d/b/a Thermal Pipe Shields v. Johns Manville Corp.*, United States District Court for the District of Colorado (Civil Action No. 1:19-CV-00872-MEH), (Expert Report: November 19, 2021).
- *In Re: JUUL Labs, Inc., Marketing, Sales Practices, and Products Liability Litigation*, United States District Court, Northern District of California, (Case No. 19-md-02913-WHO), (Expert Report: August 27, 2021; Deposition Testimony: September 22, 2021; Expert Report: November 15, 2021; Deposition Testimony: December 13, 2021; Expert Report: May 6, 2022; Supplemental Expert Report: May 27, 2022; Deposition Testimony: June 13, 2022).
- *Swisher International, Inc. v. United States Food and Drug Administration, et al.*, United States District Court, Middle District of Florida, Jacksonville Division, (Case No. 3:21-cv-00764), (Declaration: August 4, 2021).
- *Hank Haney and Hank Haney Media, LLC v. PGA Tour, Inc.*, United States District Court for the Southern District of Florida, (Civil Action No. 0:19-CV-63108-RAR), (Rebuttal Expert Report: March 19, 2021; Deposition Testimony: April 12, 2021).
- *Persian Gulf Inc et al. vs. BP West Coast Products, LLC et al and Richard Bartlett et al. v. BP West Coast Products LLC et al.*, United States District Court for the Southern District of California (Case No. 3:15-cv-01749-TWR-AGS; 3:18-cv-01373-TWR-AGS), (Expert Report: December 11, 2020; Deposition Testimony: January 13, 2021).
- *Academy of Allergy & Asthma in Primary Care, and United Biologics, LLC d/b/a United Allergy Services v. Superior Healthplan, Inc., and Centene Corp.*, United States District Court for the Western District of Texas, San Antonio Division, (Civil Action No. 5:17-CV-01122-FB), (Expert Report: September 8, 2020; Reply Expert Report: October 6, 2020; Deposition Testimony: November 18, 2020).

- *In re EpiPen (Epinephrine Injection, USP) Marketing Sales Practices and Antitrust Litigation*, United States District Court for the District of Kansas, (Case No. 17-md-2785-DDC-TJJ), (Expert Report: December 23, 2019; Deposition Testimony: January 23, 2020; Declaration: July 14, 2020).
- *In re Automotive Parts Antitrust Litigation, In re Wire Harness, FCA US LLC v. Yazaki Corp. et al.*, United States District Court, Eastern District of Michigan, Southern Division, (Case No. 2:17-cv-14138-MOB-MKM, Master File No. 12-md-02311), (Expert Report: December 23, 2019; Deposition Testimony: January 10, 2020).
- *In re Determination of Rates and Terms for Sound Recordings (2021-2025) and Making of Ephemeral Copies to Facilitate Those Performances (Web V)*, Before the United States Copyright Royalty Judges, (Docket No.: 19-CRB-0005-WR), (Written Direct Testimony: September 24, 2019; Written Rebuttal Testimony: January 10, 2020; Deposition Testimony: March 5, 2020; Trial Testimony: August 10-13, 2020; August 25, 2020).
- *Matthew Fero et al. v. Excellus Health Plan Inc. et al*, United States District Court, Western District of New York, (Case No. 6:15-cv-06569), (Expert Report: September 13, 2019; Deposition Testimony: October 30, 2019).
- *In re Premera Blue Cross Customer Data Security Breach Litigation*, United States District Court for the District of Oregon (Case No. 3:15-md-2633-SI), (Expert Report: September 19, 2018; Deposition Testimony, October 9, 2018).
- *Rimini Street, Inc. v. Oracle International Corporation and Oracle America, Inc.*, United States District Court for the District of Nevada (Case No. 2:14-CV-01699-LRH-CWH), (Expert Report: May 4, 2018; Rebuttal Report: June 22, 2018; Supplemental Rebuttal Report: July 20, 2018; Deposition Testimony: August 22, 2018; Second Supplemental Rebuttal Report: March 4, 2021; Trial Testimony: December 9, 2022).
- *Xaleron Pharmaceuticals, Inc. v. Actavis, Inc. and Allergan, Inc.*, In the Supreme Court of the State of New York, County of New York (Case No. 150587/2016), (Expert Report: December 27, 2017; Deposition Testimony: January 26, 2018).
- *Innovation Ventures, LLC f/d/b/a Living Essentials v. Custom Nutrition Laboratories, LLC and Nutrition Science Laboratories, LLC and Alan Jones*, United States District Court for the Eastern District of Michigan, Southern Division, (Case No. 12-13850), (Rebuttal Expert Report: March 23, 2017; Deposition Testimony: April 5, 2017; Rebuttal Expert Report: December 4, 2020; Deposition Testimony: January 15, 2021).
- *United States of America et al., v. Aetna Inc. and Humana Inc.*, United States District Court for the District of Columbia, (Case: 1:16-cv-01494(JDB)), (Expert Report: October 21, 2016; Expert Reply Report: November 11, 2016; Deposition Testimony: November 23, 2016; Trial Testimony: December 19-20, 2016).
- *In the Matter of Determination of Royalty Rates and Terms for Transmission of Sound Recordings by Satellite Radio and "Preexisting" Subscription Services (SDARS III)*, Before the United States Copyright Royalty Judges (Docket No.: 16-CRB-0001 SR/PSSR (2018-2022)), (Written Direct Testimony: October 19, 2016; Deposition Testimony: January 17, 2017 and April 4, 2017; Written Rebuttal Testimony: February 17, 2017; Trial Testimony: April 25-26, 2017).
- *In Re National Collegiate Athletic Association Athletic Grant-In-Aid Cap Antitrust Litigation*, United States District of Court for the Northern District of California, (Case: No. 4:14-md-2541-CW), (Expert Report: August 26, 2016; Deposition Testimony: September 28, 2016).

- *Federal Trade Commission et al., v. Staples, Inc. and Office Depot, Inc.*, United States District Court for the District of Columbia, (Case: 1:15-cv-02115-EGS), (Expert Report: February 29, 2016; Deposition Testimony: March 14, 2016).
- *American Airlines, Inc. v. British Airways PLC; Iberia Lineas Aereas de Espana, and Finnair OYJ*, Before the American Arbitration Association, (Expert Report: December 16, 2015).
- *U.S. Department of Justice v. AB Electrolux; Electrolux North America, Inc.; and General Electric Company*, United States District Court for the District of Columbia, (Case: 1:15-cv-01039-EGS), (Expert Report: September 30, 2015; Rebuttal Report: October 20, 2015; Deposition Testimony: October 28, 2015; Supplemental Report: November 11, 2015; Trial Testimony: December 3-4, 2015).
- *Vijay Singh v. PGA Tour, Inc.*, Supreme Court of the State of New York (Index No. 651659/2013), (Expert Report: June 12, 2015; Deposition Testimony: August 20, 2015).
- *In re: Lightsquared Inc., et al.*, In the United States Bankruptcy Court for the Southern District of New York (Case No. 12-12080 (SCC)), (Expert Report: February 3, 2015; Deposition Testimony: February 23, 2015; Trial Testimony: March 12, 2015).
- *Armando Diaz et al v. San Juan Cable LLC* In The United States District Court for the District of Puerto Rico (Civil Action No: 14-1244-CCC), (Expert Report: December 5, 2014).
- *In re Cablevision Consumer Litigation*, In The United States District Court for the Eastern District of New York (10-CV-4992 (JS) (AKT)) (Expert Report: July 18, 2014; Rebuttal Expert Report: September 11, 2014; Deposition Testimony: October 2, 2014).
- *Orbital Sciences Corporation v. United Launch Alliance, LLC, and RD Amross, LLC*, In the United States District Court for the Eastern District of Virginia (Civil No: 1:13-cv-00753 LMB/JFA), (Expert Report: February 28, 2014).
- *Puerto Rico Telephone Company, Inc. v. San Juan Cable LLC d/b/a OneLink Communications*, In the United States District Court for the District of Puerto Rico (Civil No: 11-2135 (GAG)), (Expert Report: December 11, 2013; Supplemental Report: December 23, 2013; Deposition Testimony: January 10, 2014).
- *Sky Angel U.S., LLC v. Discovery Communications, LLC, et al.* In the United States District Court of Maryland, Southern Division (Civil Action No. 8:13-cv-00031-DKC), (Expert Report: December 6, 2013; Deposition Testimony: January 31, 2014; Trial Testimony: November 23, 2015).
- *Oakley, Inc. vs. Nike, Inc. and Rory McIlroy*; In the United States District Court for the Central District of California (Case No. SACV12-02138 JVS-MLG), (Expert Report: November 26, 2013).
- *In re: Electronic Books Antitrust Litigation; The State of Texas, et al., v Penguin Group (USA), Inc., et al.*, In the United States District Court for the Southern District of New York (No. 11-md-02293 (DLC) and No. 12-cv-03394 (DLC)), (Declaration: November 15, 2013; Deposition Testimony: December 7, 2013; Sur-Reply Declaration: January 21, 2014).
- *Federal Trade Commission v. Actavis, Inc., et al.*, Signatory, Brief of Antitrust Economists as *Amici Curiae* before the Supreme Court, No. 12-416, February 28, 2013.
- *VOOM HD Holding LLC v. EchoStar Satellite LLC*, In the Supreme Court of the State of New York, County of New York (Index No. 600292/08), (Expert Report: December 4, 2009; Deposition Testimony: March 5, 2010; Supplemental Expert Report: August 10, 2012;

Supplemental Deposition Testimony: September 14, 2012; Jury Trial Testimony: October 11-12, 2012).

- *Hewlett-Packard Company v. Oracle Corporation*, In the Superior Court of the State of California, County of Santa Clara (Case No 1-11-CV-203163), (Expert Report: March 26, 2012; Rebuttal Report: April 9, 2012; Deposition Testimony: April 19, 2012; Supplemental Expert Report: December 10, 2012; Supplemental Deposition Testimony: February 5, 2013; Trial Testimony: March 18, 2013; Updates to Supplemental Expert Report: November 30, 2015; Supplemental Rebuttal Report: March 15, 2016; Supplemental Deposition Testimony: March 24, 2016, April 20, 2016; Jury Trial Testimony: June 20-21, 2016, June 28, 2016; Declaration: August 1, 2016).
- *In The Matter of Game Show Network, LLC v. Cablevision Systems Corporation*, in File No. CSR-8529-P, Before the Federal Communications Commission (Expert Report: December 12, 2011; Reply Declaration: February 9, 2012; Expert Report: December 14, 2012; Deposition Testimony: February 7, 2013, March 12, 2015; Direct Testimony: March 12, 2013; Supplemental Direct Testimony: March 19, 2013; Rebuttal Report: December 15, 2014; Complete Direct Testimony: June 1, 2015; Trial Testimony: July 20, 2015).
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APPENDIX B: MATERIALS RELIED UPON

DECLARATIONS

Declaration of Alberto Horiuela in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Declaration of David Gandler in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Declaration of Gary Schanman in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Expert Declaration of James Trautman in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Declaration of John Janedis in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Declaration of Robert Thun in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

Declaration of Todd Mathers in Support of Plaintiffs' Motion for Preliminary Injunction, Civil Action No. 24-cv-1363-MMG-JW.

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