

Abby L. Dennis, DC Bar No. 994476
Peggy Bayer Femenella, DC Bar No. 472770
Joshua Goodman, NY Bar (No Number)
Jeanine Balbach, MD Bar (No Number)

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580
Tel: (202) 326-2381

adennis@ftc.gov; pbayer@ftc.gov;
jgoodman@ftc.gov; jbalbach@ftc.gov

[Additional counsel identified on signature page in accordance with Local Rule 3-4(a)(1)]

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION**

FEDERAL TRADE COMMISSION,

Plaintiff,

v.

META PLATFORMS, INC., et al.

Defendants.

Case No. 5:22-cv-04325-EJD

**PLAINTIFF FEDERAL TRADE
COMMISSION'S POST-HEARING
PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW**

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**PLAINTIFF FEDERAL TRADE COMMISSION’S
PROPOSED FINDINGS OF FACT**

A. The Parties and the Proposed Acquisition

1. Through an Agreement and Plan of Merger dated October 22, 2021, Meta Platforms, Inc. (“Meta”) proposes to acquire Within Unlimited, Inc. (“Within”) (the “Acquisition”), for approximately [REDACTED]. PX6 (Agreement and Plan of Merger) at 1, 100.

2. Defendant Meta, formerly known as Facebook, is a publicly traded company organized under the laws of Delaware with headquarters in Menlo Park, California. PX6 (Agreement and Plan of Merger) at 1, 161.

3. Meta is one of the largest technology companies in the world, with profits exceeding \$46 billion in 2021. PX937 (Meta 2021 Form 10-K) at 51.

4. Meta’s “Family of Apps”—Facebook, Instagram, Messenger, and WhatsApp—claim nearly 3.6 billion “monthly active people.” PX937 (Meta 2021 Form 10-K) at 50.

5. Meta also develops and commercializes virtual reality (“VR”) and other metaverse products in its Reality Labs division. Stojasavljevic (Meta) Hr’g Tr. at 71:2-13; Zuckerberg (Meta) Hr’g Tr. at 1278:23-1279:1.

6. Defendant Within is a privately held virtual reality company organized under the laws of Delaware with headquarters—and its principal business—in Los Angeles, California. PX6 (Agreement and Plan of Merger) at 1, 161.

7. Within’s flagship product is Supernatural, a VR dedicated fitness application (“app”) that offers over 800 fully immersive, trainer-led workouts set to music in various virtual settings from the Galapagos Islands to the Great Wall of China. Dkt. No. 83 (Defendant Within Unlimited, Inc.’s Answer and Affirmative Defenses) ¶ 25.

8. Within began development of Supernatural in [REDACTED] and released the product in the Oculus store in April 2020. PX5 at 77; Milk (Within) Hr’g Tr. at 679:22-680:6.

B. Virtual Reality Technology and the “Metaverse”

9. VR technology allows users to put on a VR headset, such as Meta’s market-

1 leading Quest 2, and enter an immersive digital experience. *E.g.*, Zuckerberg (Meta) Hr’g Tr. at
 2 1299:12-16 (“[W]hat the metaverse and AR/VR enable are the sense of immersion and
 3 embodiment and physicality that I think is somewhat different from other computing
 4 platforms.”).


5 10. Relative to other digital devices, “the primary differentiator of VR is immersion,
 6 what we call feeling like you’re teleported to a different place, feeling like when you move your
 7 head and look around, you’re in a new space and seeing virtual things as if they are real, which
 8 is virtual reality.” Rabkin (Meta) Hr’g Tr. at 835:15-836:4.

9 11. Users typically engage with the VR experience through a headset that displays a
 10 stereoscopic image in front of each eye to place a user in a digitally captured and reproduced or
 11 fully rendered, three-dimensional environment. Stojasavljevic (Meta) Hr’g Tr. at 72:25-73:16.

12 12. On current-generation VR headsets, users can look and even move around in that
 13 three-dimensional space, which is often referred to as “Six-Degrees of Freedom” or “6DOF.”
 14 *Id.* at 73:17-74:3.

15 13. Cutting-edge VR technology creates an immersive digital experience that
 16 enables users to instantly be transported anywhere in the world, backward or forward in time,
 17 into outer space or fictional lands—all from the comfort and safety of their own homes. *Id.* at
 18 74:4-6; Milk (Within) Hr’g Tr. at 678:6-679:7.

19 14. Unlike a game, video, or app on a tablet, phone, or monitor, the three-
 20 dimensional VR environment creates the perception of completely surrounding the user,
 21 enabling the user to feel “immersed” in the projected space. *E.g.*, Stojasavljevic (Meta) Hr’g Tr.
 22 at 74:7-9; Rabkin (Meta) Hr’g Tr. at 835:15:836-3; PX314 (Meta) at 1; PX713 (Within) at 25,
 23 41; DX1226 (Payne (Alphabet) Dep.) at 124:11-125:179:12-130:1.

24 15. As Meta’s founder, CEO, Chairman, and controlling shareholder Mark
 25 Zuckerberg has explained, “you’re right there with another person or in another place and that’s
 26 very different from every experience of technology that we’ve had before.” Zuckerberg (Meta)
 27 Hr’g Tr. at 1269:9-12; PX931 at 4; *accord* PX54 (Bosworth (Meta) Dep.) at 50:7-13 (“”).

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED].”).

5 16. VR users interact with content, or applications (“apps”), on their headsets to
6 engage in VR experiences. *E.g.*, Stojasavljevic (Meta) Hr’g Tr. at 74:23-75:3.

7 17. Users can download apps from app stores like the Meta Quest Store, which
8 connect VR app developers and users in an online marketplace through which developers can
9 offer their products to users for download onto their individual VR devices. Stojasavljevic (Meta)
10 Hr’g Tr. at 79:16-22; Pruett (Meta) Hr’g Tr. at 219:19-254; PX55 (Verdu (Meta) Dep.) at
11 51:17-22.

12 18. Meta’s Reality Labs division develops and commercializes software, including
13 apps, for Meta’s virtual reality headsets. Stojasavljevic (Meta) Hr’g Tr. at 71:2-13.

14 19. App availability and prices on the Quest Store can and do vary by country, as
15 Quest headsets have a dynamic region lock that tracks a user’s geolocation and may block
16 content in certain regions. *Id.* at 79:23-80:6 (content can be “region locked” or “geo locked”);
17 PX969 at 1-2.

18 20. VR is a major technology for the “metaverse,” which generally refers to the idea
19 of persistent, connected online virtual worlds. Zuckerberg (Meta) Hr’g Tr. at 1292:1-4; PX54
20 (Bosworth (Meta) Dep.) at 49:21-54:25.

21 **C. Mr. Zuckerberg Decided Facebook’s Future Is the Metaverse and Has**
22 **Committed Tens of Billions of Dollars to His Vision**

23 21. Although best known for its “Family of Apps,” Meta in recent years has
24 committed substantial resources and billions of dollars to its metaverse business. PX559 (Meta)
25 at 1; Zuckerberg (Meta) Hr’g Tr. at 1280:2-6, 9-18, 1282:12-15.

26 22. Meta has pursued this course because Mr. Zuckerberg believes that the
27 metaverse will be the “next major computing platform,” like personal desktops and mobile
28

1 Labs. PX937 (Meta 2021 Form 10-K) at 51; PX975 (Meta Q3 2022 Form 10-Q) at 31.

2 31. Meta spent more than \$10 billion dollars on Reality Labs in 2021 and [REDACTED]
 3 [REDACTED]. PX937 (Meta 2021 Form 10-K) at
 4 51; PX975 (Meta Q3 2022 Form 10-Q) at 31 (showing that Meta is on course to spend \$14.5
 5 billion in 2022); Zuckerberg (Meta) Hr’g Tr. at 1280:14-16, 1283:18-22.

6 32. Meta boasts more than 10,000 developers in its Reality Labs Division as of
 7 October 2022—up from just 50 in 2014. Carmack (Meta) Hr’g Tr. at 553:11-16; *see also* PX54
 8 (Bosworth (Meta) Dep.) at 27:8-11 (number of engineers in Reality Labs in the thousands);
 9 PX710 at 2 ([REDACTED])
 10 [REDACTED]).

11 33. In 2021, the same year as Meta announced the Acquisition, Mr. Zuckerberg
 12 made the decision [REDACTED]
 13 [REDACTED]
 14 [REDACTED]. Zuckerberg (Meta) Hr’g Tr. at 1283:18-1284:21.

15 34. As Mr. Zuckerberg explained, “no matter how long it takes for VR to become a
 16 big thing, [Meta] can keep on funding [developers] as along as our business does reasonably. . .
 17 . [W]e can now, you know, support those teams in building out multi-year things, but -- which
 18 is somewhat unique in the space.” Zuckerberg (Meta) Hr’g Tr. at 1328:20-25, 1330:15-17.

19 **D. Meta Is Already Well on Its Way to Its Dominating This “Next Major**
 20 **Computing Platform”**

21 35. The Quest 2 is the “dominant” platform in the United States today, with the
 22 largest installed base of users. Janszen (VirZoom) Hr’g Tr. at 1152:4-8; *see also* Garcia (Odders
 23 Lab) Hr’g Tr. at 1100:20-1101:3 (testifying that [REDACTED]
 24 [REDACTED]).

25 36. In 2020, Meta’s VR headset sales accounted for [REDACTED] of all VR
 26 headsets sold worldwide. PX109 (Meta) at 13.

27 37. In 2021, that percentage surged, with Meta’s headsets accounting for
 28

1 approximately [REDACTED]. DX1230 (Carlton (Defendants' Expert) Rep.) at ¶ 36, Table 2
 2 ([REDACTED] VR devices were sold in 2021), ¶ 37 n.41 (Meta sold [REDACTED] VR devices in
 3 2021).

4 38. For worldwide sales of VR and AR devices in 2021, Meta's devices accounted
 5 for 78% of the market's revenues. PX15 (Singer Rep.) ¶ 21, *see also* Singer (FTC Expert) Hr'g
 6 Tr. at 332:24-333:2 ("according to IDC, they have 80 percent of worldwide VR headsets, 80
 7 percent market share").

8 39. When not on sale, the Quest 2 headset retails for \$399. Stojasavljevic (Meta) Hr'g
 9 Tr. at 77:2-5.

10 40. As of December 2022, the Quest 2 was on sale for approximately \$350. *Id.* at
 11 77:2-3.

12 41. The \$399 price point reflects a \$100 price increase that Meta implemented in
 13 August of 2022. Singer (FTC Expert) Hr'g Tr. at 333:4-6; Carlton (Defendants' Expert) Hr'g
 14 Tr. at 1467:17-22.

15 42. Unlike earlier Meta headsets that had to be tethered to a personal computer,
 16 Quest headsets can operate "standalone," Stojasavljevic (Meta) Hr'g Tr. at 75:10-25; the Quest 2
 17 and Quest Pro *can* be used in tethered mode with a PC, but they do not need to be. *Id.* at 93:14-
 18 15.

19 43. [REDACTED]
 20 [REDACTED] Garcia (Odders Lab) Hr'g Tr. at 1100:4-18.

21 44. Content can be designed in a way to highlight the unique features of non-tethered
 22 headsets, such as by requiring or allowing users to spin around in a way that would cause a user
 23 of a tethered headset to become tangled in the cord. Stojasavljevic (Meta) Hr'g Tr. at 101:21-
 24 102:10.

25 45. A tethered headset [REDACTED]
 26 [REDACTED]. PX818 (Sony) at 11 ([REDACTED]
 27 [REDACTED]
 28

1 [REDACTED]; DX1224 (Wyss (Sony) Dep.) at 88:10-15, 92:5-15 (“[REDACTED]
 2 [REDACTED]
 3 [REDACTED].”).

4 46. In fact, VirZoom stopped working with all other platforms except Meta’s based
 5 on its expectations that Meta would become dominant, which proved to be an accurate
 6 prediction. Janszen (VirZoom) Hr’g Tr. at 1123:11-1124:1-2, 1151:22-1152:8, 1166:15-23.

7 47. [REDACTED]
 8 [REDACTED]
 9 [REDACTED]. PX818 (Sony) at 11 ([REDACTED]
 10 [REDACTED]
 11 [REDACTED]”); DX1224 (Wyss (Sony) Dep.) at 88:10-15.

12 48. The PlayStation VR must be tethered to a PlayStation 4 console; the PlayStation
 13 VR 2, which has not yet been released, will need to be tethered to a PlayStation 5. Stojasavljevic
 14 (Meta) Hr’g Tr. at 78:14-25.

15 49. In addition to being untethered, Meta’s Quest devices also differ from other VR
 16 headsets in that they are far less expensive:

17 a. Sony’s PlayStation VR2 headset, as yet unreleased, [REDACTED]
 18 [REDACTED]
 19 [REDACTED]. DX1224 (Wyss (Sony) Dep.) at 82:19-83:02, 84:14-
 20 85:14.

21 b. Valve’s Index headset is [REDACTED]
 22 [REDACTED], not including the cost of the required personal computer. DX1229 (Cain
 23 (Valve) Dep.) at 81:4-18. Moreover, Valve has [REDACTED]
 24 [REDACTED]
 25 [REDACTED] *Id.* at 27:3-9, 80:1-10; *see also* Garcia (Odders Lab) Hr’g Tr. at
 26 1092:23-1093:10 (testifying that HTC has not released the new headset and that
 27 HTC’s last headset did not have “the most successful” launch in addition to
 28

1 being more expensive than the Quest 2).

2 50. Although certain major companies have plans to develop, or have developed, a
3 virtual reality or augmented reality device, those products are not currently available in the
4 United States:

5 a. ByteDance does not sell its Pico headset in the United States. Garcia (Odders
6 Lab) Hr’g Tr. at 1093:141-16; Pruett (Meta) Hr’g Tr. at 272:10-14. It has [REDACTED]
7 [REDACTED]
8 [REDACTED], and [REDACTED]
9 [REDACTED]. DX1221 (Choate (ByteDance)
10 Dep.) at 10:9-14, 24:11-18, 93:8-11.

11 b. Apple has yet to market any VR headset. PX55 (Verdu (Meta) Dep.) at 243:12-
12 18; Milk (Within) Hr’g. Tr. at 762:3-4. [REDACTED]
13 [REDACTED]
14 [REDACTED]. PX74 (Casanova (Apple) Dep.) at 123:14-124:6.

15 c. Alphabet [REDACTED]
16 [REDACTED]. DX1226 (Payne
17 (Alphabet) Dep.) at 12:7-22, 13:4-19, 14:2-17, 15:17-19, 18:17-19, 19:3-12.
18 There is [REDACTED]
19 [REDACTED]. *Id.* at 26:5-10, 28:2-
20 15.

21 51. Meta subsidizes its VR headsets or sells them at cost in order to attract users.
22 Bosworth (Meta) Hr’g Tr. at 1016:7-9 (“On one side you have consumers, and we want more of
23 them, so we’re willing to subsidize their presence by reducing the cost that they have to pay for
24 a device”); PX951 (Meta) at 3.

25 52. In part because of the absence of meaningful headset competition in the United
26 States, Meta raised the price of its two-year-old Quest 2 headsets by \$100 in 2022. Singer (FTC
27 Expert) Hr’g Tr. at 333:4-6.

53. Meta also boasts the [REDACTED] app store for VR (the Meta Quest Store) by usage. PX15 (Singer Rep.) ¶¶ 20-24; PX140 (Meta) at 1.

54. Meta receives 30 percent of the monetary value of sales from apps sold on the Quest Store. Pruett (Meta) Hr’g Tr. at 227:19-23; Koblin (Within) Hr’g Tr. at 604:12-15.

55. Meta also offers the “App Lab,” a Meta-produced tool that allows developers to distribute apps that are unavailable in the Quest Store. Pruett (Meta) Hr’g Tr. at 230:14-231:12.

56. [REDACTED]
[REDACTED]. PX63 (Rabkin (Meta) Dep.) at 31:18-24 (“[REDACTED]
[REDACTED]”); Pruett (Meta) Hr’g Tr. at 262:25-263:3 (agreeing “in general” that “apps that ship on App Lab are lower quality than apps that ship on the Quest Store”), 293:11-294:6; PX315 (Meta) at 3-4 (listing only Quest Store apps among the top apps by lifetime revenue).

57. App Lab includes apps that “may be of low quality, experimental, or broken.” Carmack (Meta) Hr’g Tr. at 570:4-10.

58. Meta owns many of the leading apps distributed on the Meta Quest Store, including the wildly popular rhythm game Beat Saber, in which the player uses virtual swords to hit incoming targets timed to music. PX121 (Meta) at 3; PX385 (Meta) at 4; PX57 (Dass (Meta) Dep.) at 25:15-21.

59. Beat Saber is the number one installed app in Meta’s Quest store and the most successful virtual reality app ever. Rabkin (Meta) Hr’g Tr. at 820:9-11 (“[i]t is literally the number one installed app in the store”); Carmack (Meta) Hr’g Tr. at 579:17-580:22-23 (“Beat Saber is the most successful virtual reality app ever”); PX54 (Bosworth (Meta) Dep.) at 123:25-124:6, 130:12-131:11, 139:21-22 (Beat Saber is “the best-selling title of all times”); Stojasavljevic (Meta) Hr’g Tr. at 82:23-83:8 (Beat Saber is one of the most successful VR apps on the Quest and “was at one time” one of the most successful Playstation VR apps).

60. Since 2019, Beat Saber has been the highest earning app in the Quest Store, with a “multiple” of the revenue of the second highest earning application. Dkt. No. 84 (Defendant

Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 33; Stojsavljevic (Meta) Hr’g Tr. at 86:17-19 (referencing PX315), 87:11-13; PX315 at 004 (showing that Beat Saber is [REDACTED] on Meta’s VR platforms with approximately [REDACTED] in lifetime revenue; next highest earning app had approximately [REDACTED] in lifetime revenue).

61. Beat Saber alone brings in more revenue than the next five highest-grossing apps combined. Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 4.

62. Meta acquired Beat Saber by purchasing Beat Games studios in late 2019. Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 4.

63. Meta executives have described Beat Saber as a “must own/must play title.” PX55 (Verdu (Meta) Dep.) at 55:2-16; PX342 (Meta) at 4.

64. Meta owns three of the top five applications by lifetime revenue as of March 2022. Stojsavljevic (Meta) Hr’g Tr. at 87:7-10; PX315 at 004 ([REDACTED]).

65. In the past three years, Meta has purchased at least nine VR app studios with track records of building VR apps from scratch (Stojsavljevic (Meta) Hr’g Tr. at 87:5-88:2), including closing three additional VR studio acquisitions *after* announcing its proposed acquisition of Within:

a. In November 2019, Meta acquired Beat Games, maker of Beat Saber. PX4 at 172 (incorporating PX505); Dkt. No. 84 (Defendant Meta Platform, Inc.’s Answer and Affirmative Defenses) ¶ 33. Beat Games continues to release new functionality and song packs for Beat Saber. Stojsavljevic (Meta) Hr’g Tr. at 88:9-15.

b. In January 2020, Meta acquired Sanzaru Games, maker of the fantasy Viking combat game Asgard’s Wrath. PX4 at 172 (incorporating PX505); Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 34; Stojsavljevic (Meta) Hr’g Tr. at 93:7-9. Sanzaru is currently working on

- 1 [REDACTED]. *Id.* at 93:16-20, PX555 (Meta) at 2.
- 2 c. In May 2020, Meta acquired Ready at Dawn Studios, maker of Lone Echo II, a
 3 zero-gravity adventure game, and Echo VR, an online team-based e-sports game
 4 (PX4 at 118 n. 227, 119 n. 231; Dkt. No. 84 (Defendant Meta Platform, Inc.'s
 5 Answer and Affirmative Defenses) ¶ 34); Stojsavljevic (Meta) Hr'g Tr. at 89:10-
 6 17. Lone Echo II and Echo VR were both released *after* Ready at Dawn was
 7 acquired by Meta. PX4 (Meta) at 118, 119; Stojsavljevic (Meta) Hr'g Tr. at
 8 89:23-90:1. The Ready at Dawn Team shifted from working on a [REDACTED]
 9 [REDACTED] and a [REDACTED] to a new product [REDACTED]
 10 [REDACTED]. Stojsavljevic (Meta) Hr'g Tr. at 92:9-11, 92:18-
 11 93:3; PX52 Stojsavljevic (Meta) Deposition at 44:13-16, 46:2-7.
- 12 d. In April 2021, Meta acquired Downpour Interactive, maker of Onward, a team-
 13 based tactical military first-person shooter. PX4 at 172 (incorporating PX505);
 14 Dkt. No. 84 (Defendant Meta Platforms, Inc.'s Answer and Affirmative
 15 Defenses) ¶ 34; Stojsavljevic (Meta) Hr'g Tr. at 89:4-6. The Downpour team
 16 continues to develop new content for Onward. *Id.* at 89:7-9.
- 17 e. In May 2021, Meta acquired BigBox VR, maker of Population One, a multi-
 18 player first-person battle royale shooter. PX4 at 172 (incorporating PX505); Dkt.
 19 No. 84 (Defendant Meta Platforms, Inc.'s Answer and Affirmative Defenses) ¶
 20 34; Bosworth (Meta) Hr'g Tr. at 1054:17-19; Stojsavljevic (Meta) Hr'g Tr. at
 21 88:19-21. Big Box VR continues to develop new content for Population One.
 22 Stojsavljevic (Meta) Hr'g Tr. at 88:22-24.
- 23 f. In June 2021, Meta acquired Unit 2 Games, the maker of Crayta, a collaborative
 24 platform that allows users to create and play their own games. PX4 at 172
 25 (incorporating PX505); Dkt. No. 84 (Defendant Meta Platforms, Inc.'s Answer
 26 and Affirmative Defenses) ¶ 34. Unit 2 Games works on building Meta's
 27 Horizon applications. Stojsavljevic (Meta) Hr'g Tr. at 80:25-81:7.
- 28

- g. In November 2021, Meta acquired Twisted Pixel, a studio that makes various games, including Path of the Warrior (a fighting game), B-Team (a first-person shooter), and Wilson’s Heart (a mystery noir thriller game). PX4 at 172 (incorporating PX505); Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 34; Bosworth (Meta) Hr’g Tr. at 1055:3-4. Twisted Pixel is working on a VR game based on [REDACTED]. Stojasavljevic (Meta) Hr’g Tr. at 93:22-94:3; PX555 (Meta) at 3.
- h. In the second quarter of 2022, Meta acquired Armature Studio, a studio that co-develops VR apps with other studios, a skill set that is “unique” and “very rare.” Stojasavljevic (Meta) Hr’g Tr. at 124:23-125:18; PX52 (Stojasavljevic (Meta) Dep.) at 55:7-13, 136:24-137:23; PX17 (Meta Responses and Objections to FTC Interrogatory No. 1) at 8. Armature ported the console game Resident Evil 4 to VR; it has also developed a fencing prototype that Meta has shown publicly. Stojasavljevic (Meta) Hr’g Tr. at 95:13-18. Armature is currently assisting Sanzaru with [REDACTED] in addition to a non-public project based on licensed IP. *Id.* at 96:8-10, 15-19. Meta could assign the Armature team to other VR app development projects. *Id.* at 96:15-19.
- i. In September 2022, Meta acquired Camouflaj and its sister studio Darkwind Media, which are currently developing a [REDACTED] VR app for Quest and recently released Ironman VR on Quest. Stojasavljevic (Meta) Hr’g Tr. at 81:13-16, 94:18-20; PX555 at 003; PX17 (Meta Responses and Objections to FTC Interrogatory No. 1) at 10; Bosworth (Meta) Hr’g Tr. at 1055:5-6.

66. Meta has also successfully developed its own apps. Carmack (Meta) Hr’g Tr. at 556:17-559:8; Zuckerberg (Meta) Hr’g Tr. at 1285:15-17; Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 35.

67. These apps include:

- a. Horizon Worlds, a massively multiplayer online game that allows users to build,

share, and interact in virtual worlds. Stojasavljevic (Meta) Hr’g Tr. at 83:9-15; Bosworth (Meta) Hr’g Tr. at 1051:9-11; Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 35.

- b. Horizon Workrooms, a productivity app that lets teams of people share their computer screens, collaborate on virtual whiteboards, and more. Stojasavljevic (Meta) Hr’g Tr. at 83:-22; Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 35; Bosworth (Meta) Hr’g Tr. at 1052:7-9.
- c. Horizon Venues, a live-events app that lets users experience concerts, sporting events, and more. Stojasavljevic (Meta) Hr’g Tr. at 83:9-19; Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 35.
- d. Horizon Home, a social-space app that lets users hang out with their friends, watch videos together, and join multiplayer VR games together. Dkt. No. 84 (Defendant Meta Platforms, Inc.’s Answer and Affirmative Defenses) ¶ 35.
- e. Dead and Buried, a multiplayer shooter game for the Oculus Rift and Go devices, and Dead and Buried II, developed for the Quest and Quest 2 devices. Carmack (Meta) Hr’g Tr. at 557:9-12; Bosworth (Meta) Hr’g Tr. at 1051:18-20.
- f. Oculus TV, an app that plays immersive 360-degree and 180-degree VR media. Carmack (Meta) Hr’g Tr. at 557:5-6.

68. Meta’s first-party studios have developed and continue to develop multiple apps for Meta’s VR platform, with some of the acquired studios focused on developing new applications, and others working on providing a regular flow of updated content for existing applications. Bosworth (Meta) Hr’g Tr. at 1051:21-24; Stojasavljevic (Meta) Hr’g Tr. at 88:3-8; PX52 (Stojasavljevic (Meta) Dep.) at 43:4-22, *supra* at ¶ 65.

69. Meta has also developed “shells,” which are a wrapper program for any platform or game and the “first application that you see when you put on” a headset. Carmack (Meta) Hr’g Tr. at 547:10-548:20; PX55 (Verdu (Meta) Dep.) at 85:25-86:19.

70. In addition to its first-party studios, Meta also boasts a Developer Relations

1 Engineering Team comprised “of veteran engineers who are particular experts in our VR
2 technology and hardware.” Pruet (Meta) Hr’g Tr. at 286:4-12.

3 71. These Meta engineers “work directly with [third party] developers we’re
4 managing to improve the quality of their software or help them fix bugs or otherwise, like,
5 polish the experience that the developer is building.” *Id.*; accord Rabkin (Meta) Hr’g Tr. at
6 808:16-20 (“We have whole big chunks of my team in the software development side called the
7 ecosystem team, and their only job is to make developers on the platform successful, whether in
8 the store and in marketing and merchandising your apps, or through the SDKs and how the
9 developers develop their app.”).

10 **E. Meta Owns and Develops First-Party Apps That Compete with Third-Party**
11 **Developers on the Quest Platform**

12 72. Horizon Worlds is a social application that Meta developed internally.
13 Zuckerberg (Meta) Hr’g Tr. at 1285:22-1286:7; Stojasavljevic (Meta) Hr’g Tr. 83:9-11.

14 73. Meta’s Horizon Worlds competes directly with the app Rec Room. Zuckerberg
15 (Meta) Hr’g Tr. at 1287:21-1288:1, 1291:10-18; PX201 (Meta) at 2.

16 74. Meta acknowledges that Rec Room and a similar app called VR Chat are
17 “smaller” competitors that have found a “market fit.” Bosworth (Meta) Hr’g Tr. at 992:24-
18 993:16.

19 75. [REDACTED].
20 Zuckerberg (Meta) Hr’g Tr. at 1288:20-1289:3; Bosworth (Meta) Hr’g Tr. at 1045:21-1046:12;
21 PX308 (Meta) at 3 (“[REDACTED]
22 [REDACTED]”).

23 76. Meta has continued to “invest[] very heavily” and “promote” its first-party
24 Horizon Worlds despite successful third-party developer competition. *See* Bosworth (Meta)
25 Hr’g Tr. at 993:9-12; Zuckerberg (Meta) Hr’g Tr. at 1291:10-18 (noting that Meta is working
26 on “social” and that “others, like Rec Room” are serving that niche as well).

27 77. [REDACTED]
28

1 [REDACTED]. PX66 (Rubin (Meta) Dep.) at
 2 92:9-13, 93:3-12; *see also* Bosworth (Meta) Hr’g Tr. at 992:24-993:12 (noting that Meta is
 3 creating a “first party social” app called Horizon that competes with third party social spaces
 4 “Rec Room” and “VR Chat.”).

5 78. In fact, Meta [REDACTED]
 6 [REDACTED]. Zuckerberg (Meta) Hr’g Tr. at 1288:2-13.

7 79. According to Mr. Zuckerberg, Facebook “was and still is generally a very strong
 8 software company.” Zuckerberg Hr’g Tr. at 1276:10-12.

9 80. “[REDACTED]
 10 [REDACTED].” Zuckerberg (Meta) Hr’g Tr. at
 11 1285:18-21.

12 81. Meta’s first-party studios group is continuing to develop original content that
 13 will compete with third parties across a number of genres. *See supra* Findings of Fact ¶ 65.

14 82. Meta has created multiple VR video apps, despite the presence of third-party
 15 developers with competing products, including Within. *See* PX4 (Meta) at 117-18 (listing
 16 “Oculus TV” and “Oculus Video” among Meta’s first-party software services); Carmack (Meta)
 17 Hr’g Tr. at 557:3-6 (“Meta built 360 Videos”); Koblin (Within) Hr’g Tr. at 604:2-5 (Within has
 18 a “360 video player” in addition to Supernatural).

19 **F. Meta Has Long Recognized That Content Drives VR Adoption**

20 83. As mentioned above, Meta’s “goal is to create a new type, a new age of
 21 computing device.” Rabkin (Meta) Hr’g Tr. at 801:14-15; *see also* Bosworth (Meta) Hr’g Tr. at
 22 1049:13-15.

23 84. To achieve this vision, Meta has focused on bringing new users to its VR
 24 platform. *E.g.*, Rabkin (Meta) Hr’g Tr. at 805:8-12 (“Developers will not build for a computing
 25 platform that has 10,000 users. They’d rather build for an existing operating system that will –
 26 where building that software once is a fixed cost, and then that software can have access to a
 27 billion people.”).

1 85. Meta acknowledges that good content (apps) brings new users to VR and drives
2 sales of its Quest headsets. *E.g.*, Zuckerberg (Meta) Hr’g Tr. at 1294:16-1295:2 (agreeing that
3 “VR content plays an important role in the adoption of VR,” that “a lot of people get a VR
4 system because there’s specific content that they want to engage with,” and that “good content
5 will lead to higher headset sales”); Stojasavljevic (Meta) Hr’g Tr. at 108:9-14 (“a lot of people
6 buy [the headset] for the content”); PX55 (Verdu Dep.) at 128:12-18 (“Q. And great content
7 leads to more people using Quest devices? A. Yes. Q. And great content leads to more use of
8 Quest devices by the persons who own those Quest devices; correct? A. That’s correct.”);
9 PX239 (Meta) at 1 (“[REDACTED]
10 [REDACTED]”).

11 86. As Mr. Stojasavljevic explained, users “don’t tend to put on a headset without
12 content. It would be like buying a T.V. without a movie or T.V. show to watch.” Stojasavljevic
13 (Meta) Hr’g Tr. at 101:6-13; *accord* Rabkin (Meta) Hr’g Tr. at 805:13-14 (“People will not
14 come to a platform if there’s not a million things to do on it.”).

15 87. Or as Mr. Zuckerberg observed, “The apps, I think, tend to hold the platform
16 together more than the other way around.” Zuckerberg (Meta) Hr’g Tr. at 1272:24-1273:2.

17 88. Meta sees “having more or different types of content” as a “differentiator”
18 between its devices and other devices. Stojasavljevic (Meta) Hr’g Tr. at 101:6-13.

19 89. Content can differentiate between platforms if it exists on one platform but not
20 another platform; the absence of content on a given platform can be a “negative differentiator”
21 relative to other platforms that have that content. *Id.* at 101:21-102:7.

22 90. Content can also highlight features on one device that are not available on others.
23 *Id.*

24 91. Indeed, Meta refers to key apps that drive adoption of Quest headsets, like Beat
25 Saber, as “system sellers.” Zuckerberg (Meta) Hr’g Tr. at 1295:12-13 (“Q. And you would
26 consider Beat Saber a system seller; right? A. Yeah, I think so.”); Stojasavljevic (Meta) Hr’g Tr.
27 at 107:23-108:8; PX55 (Verdu (Meta) Dep.) at 51:7-16; PX342 (Meta) at 2.

92. Sales of Quest headsets, in turn, can drive new content by app developers, in what Meta has referred to as a [REDACTED] effect—otherwise known as “network effects.” PX100 (Meta) at 2-3; PX54 (Bosworth (Meta) Dep.) at 243:19-245:19; PX361 (Meta) at 4 (“There will be strong network effects to a successful Metaverse”).

93. As Meta fully recognizes, the acquisition of new users, content, and developers [REDACTED] [REDACTED] Bosworth (Meta) Hr’g Tr. at 1048:24-1049:4; PX54 (Bosworth (Meta) Dep.) at 242:2-19 [REDACTED]

94. Through content, Meta has also sought to keep users engaged and using its VR products, which it refers to as retention. *E.g.*, Stojasavljevic (Meta) Hr’g Tr. at 108:15-109:7; PX55 (Verdu (Meta) Dep.) at 75:18-76:3.

95. Retention is important because [REDACTED] [REDACTED] [REDACTED] [REDACTED] PX50 (Zuckerberg (Meta) Dep.) at 167:17-168:12; *see also* Pruett (Meta) Hr’g Tr. at 271:5-8 (retention is important to Meta because “even if people buy a device and leave it on the shelf, then we’re not making a product that has good customer value.”).

96. Content can also be a “big differentiator[]” between VR platforms. PX522 (Meta) at 1.

97. As Meta’s Director of First Party Studios Rade Stojasavljevic agreed that “content can be a differentiator if it exists on one platform, but does not exist on another platform”; content can be a “negative differentiator” if it “doesn’t exist on a platform”; and content can also “highlight the unique features of a device.” Stojasavljevic (Meta) Hr’g Tr. at 101:21-102:10.

1 98. For non-tethered platforms, content can allow a “different and probably better”
2 experience by letting users move more freely without needing to “dodge” a wire or cord. *Id.*

3 99. Not surprisingly, Mr. Zuckerberg has implored Meta personnel to “get
4 aggressive” with content after hearing industry rumors that Apple was going to build a headset,
5 PX522 (Meta) at 1; Stojasavljevic (Meta) Hr’g Tr. at 100:19-101:1, 105:13-15, and senior
6 leaders at Oculus Studios sought to “build a moat via experienced VR developer acquisitions.”
7 PX527 (Meta) at 3.

8 100. Meta’s VR Content organization is tasked with bringing new content to Meta’s
9 platform through a variety of funding models and channels. Rabkin (Meta) Hr’g Tr. at 807:10-
10 23.

11 101. New content can include first-party apps developed directly by Meta employees
12 through its studios group, which, by the fall of 2020, was capable of “growing organically”
13 without having to acquire more companies. PX55 (Verdu (Meta) Dep.) at 117:5-118:12; *see*
14 *also* PX568 (Meta) at 1 [REDACTED]
15 [REDACTED]
16 (ellipsis in original); Carmack (Meta) Hr’g Tr. at 559:9-12 (agreeing that Meta could “stack out
17 a killer development team”); PX367 (Meta) at 1 [REDACTED]
18 [REDACTED]

19 102. New content can also include apps built by third parties, including those who
20 may receive some funding or support from Meta. Rabkin (Meta) Hr’g Tr. at 807:14-23.

21 103. In cases where the development investment is “outside of the realm of what the
22 business would justify” or “something where the return on the investment is so dubious” that
23 Meta needs to shoulder the risk, Meta may fully fund or nearly-fully fund an outside content
24 project, which Meta refers to as “second party” development. Stojasavljevic (Meta) Hr’g Tr. at
25 106:16-21, 107:14-22.

26 104. When Meta fully funds outside content, it seeks a period of exclusivity because it
27 is taking on the financial risk for a title and funding them “outside of what the business would
28

1 justify.” *Id.* at 107:14-22.

2 105. Meta acknowledges that investment in content can help grow use cases like
3 fitness. PX63 (Rabkin (Meta) Dep.) at 44:11-45:1.

4 106. The VR Content organization was overseen by Michael Verdu until a
5 reorganization following Mr. Verdu’s departure from Meta, when it was taken over by Jason
6 Rubin and made part of Meta’s “Metaverse” organization. Rabkin (Meta) Hr’g Tr. at 856:1-7;
7 PX66 (Rubin (Meta) Dep.) at 145:16-46:4.

8 107. Currently, Meta’s VR Content organization boasts [REDACTED]
9 employees. PX63 (Rabkin (Meta) Dep.) at 228:9-14; PX66 (Rubin (Meta) Dep.) at 22:14-17.

10 108. Meta’s first-party studios group alone—which includes all but one of the VR
11 development studios Meta has acquired since 2019—boasts approximately 570 employees.
12 Stojasavljevic (Meta) Hr’g Tr. at 81:18-82:19 (testifying that approximately 40 people work for
13 Beat Games, 40 people work for Big Box VR, 50 people work for Downpour, 120 people work
14 for Ready at Dawn, 140 people work for Sanzaru, 60 people work for Twisted Pixel, 70 people
15 work for Camouflaj, and 50 people work for Armature); that number does not include the
16 individuals that work on Meta’s Horizon products or the acquired studio Unit 2 Games. *Id.* at
17 80:25-81:7; PX52 (Stojasavljevic (Meta) Dep.) at 22:13-23 [REDACTED]
18 [REDACTED]

19 109. At the end of 2019, the VR Content organization anticipated that it would “spend
20 [REDACTED] between now and the end of 2023 on a two prong strategy to inflect VR
21 adoption, engagement, and retention.” PX162 (Meta) at 2.

22 110. As of November 2021, Meta anticipated investing [REDACTED] in developing
23 VR content in 2022 alone. PX227 (Meta) at 2; *see also* PX54 (Bosworth (Meta) Dep.) at 42:13-
24 43:16, 57:21-59:12).

25 111. Under Mr. Rubin, the Metaverse Content organization spends approximately
26 [REDACTED] a year. PX66 (Rubin (Meta) Dep.) at 24:5-25:8.

G. Meta Seeks to Develop Use Cases Beyond Gaming

112. Until recently, VR experiences have almost always involved games, and thus attracted a heavily male, and young, audience. Zuckerberg (Meta) Hr’g Tr. at 1293:10-19 (“in general you’re correct that the [gaming] category overall I think skews younger and more male”); Stojasavljevic (Meta) Hr’g Tr. at 105:13-19 (“we had a core bit of content that was geared towards gamers”) & 112:18-113:4 (“we were predominantly male on the Quest headset”); PX250 (Meta) at 1 [REDACTED]

113. To attract new users beyond young men, Meta has identified—and encouraged—a number of VR “use cases” beyond games. *E.g.*, Zuckerberg (Meta) Hr’g Tr. at 1292:7-10 (“We’re trying to build it into something with multiple use cases.”) & 1292:24-1293:1 (agreeing that “Meta needs to support a bunch of different use cases that are valuable for all different demographics”); Rabkin (Meta) Hr’g Tr. at 801:14-19 (“we need as many use cases as possible to get – you know, our dream is to have hundreds of millions of people using our technology”).

114. As explained by Mr. Zuckerberg: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
PX50 (Zuckerberg (Meta) Dep.) at 84:5-16; *see also id.* at 198:1-4 [REDACTED]
[REDACTED]
[REDACTED] Zuckerberg (Meta) Hr’g Tr. at 1293:6-9 (agreeing that “a big goal of Meta’s is to show that there are going to be a lot of use cases that are going to make VR a more general platform than just for gaming”).

115. Fundamentally, Meta is trying to build a “new technology and a new computing platform,” which requires that the device have “as many use cases as possible” so that people use their devices regularly. Rabkin (Meta) Hr’g Tr. at 801:6-13.

116. For VR to be successful, people have to be “doing a lot of different things,” so

1 for Meta, as Meta Vice President Mark Rabkin testified, “use cases are like Pokemons. . . we
 2 have to collect them all.” Rabkin (Meta) Hr’g Tr. at 811:4-11; *accord id.* at 857:18-22 (“our
 3 goal is to build a platform that is not narrowly defined by one use. And we’re starting from a
 4 point that only had one use, gaming, and internally we would keep talking about, we do not
 5 want it to be a console. We want it to be broader.”)

6 117. Meta has identified a number of discrete “use cases” within VR, including
 7 gaming, social, productivity, fitness, and media. Rabkin (Meta) Hr’g Tr. at 801:22-803:14; *Id.* at
 8 856:22-858:4 (listing use cases beyond gaming including social, productivity and work, fitness,
 9 and media consumption); Bosworth (Meta) Hr’g Tr. at 1051:6-1052:9 (listing use cases where
 10 Meta has invested); *Id.* at 1006:21-1007:5 (listing additional use cases including fitness);
 11 Zuckerberg (Meta) Hr’g. at 1292:18-1293:9; *see also* PX 954 (Meta Q2 2021 earnings call) at 5
 12 (noting that Meta has seen “compelling use cases and other forms of entertainment as well, as
 13 well as work, creativity and fitness” on Quest 2); PX 917 (Meta Q1 2021 earnings call) at 4
 14 (noting that Meta is seeing the app ecosystem “broaden out beyond games into other categories”
 15 including “social” as well as “productivity and even fitness apps.”).

16 118. Gaming and social are the largest use cases, and gaming is historically the largest
 17 use case in VR. Rabkin (Meta) Hr’g Tr. at 802:1-7.

18 119. From the start of his VR ambitions, Mr. Zuckerberg “was expecting . . . was that
 19 we’d build most of the apps and software services ourselves.” PX50 (Zuckerberg (Meta) Dep.)
 20 at 57:12-16; *see also* PX559 (Meta) at 1.

21 120. To date, Meta has invested as a first party—and competes with third-party
 22 developers—in all of the foregoing use cases with only one exception: fitness.

- 23 a. Meta boasts three of the five largest gaming apps and is in the process of
 24 internally developing more. *Supra* Findings of Fact ¶¶ 64–65.
- 25 b. Meta has a first-party social app called Horizon Worlds that it built internally
 26 from scratch. *Supra* Findings of Fact ¶ 67a;
- 27 c. Meta has a first-party productivity app called Horizon Workrooms that it built
 28

internally from scratch. *Supra* Findings of Fact ¶ 67b.

d. Meta has internally developed video apps Oculus TV and Oculus Video, and a live events app called Horizon Venues. *Supra* Findings of Fact ¶¶ 67c, 67.f, 82.

121. In social, [REDACTED]

[REDACTED] continued to compete via its internally developed Horizon Worlds app in what has emerged as one of the two largest use cases in VR.

Supra Findings of Fact ¶¶ 72–78; *see also* Zuckerberg (Meta) Hr’g Tr. at 1288:20–22 [REDACTED]

[REDACTED]
1291:10–18 (“the first major category that we went after was games in terms of helping to build that. And then the next category are going to be social and communication platforms that, you know, we’re working on but others, like Rec Room like you mentioned, are serving, too”); Rabkin (Meta) Hr’g Tr. at 802:4 (“Today the two biggest use cases are gaming and social”).

122. The only use case where Meta does not presently have a first-party app is fitness; through the proposed Acquisition, Meta seeks to spend in excess of [REDACTED] to gain a first-party presence in that space. *See* PX6 (Agreement and Plan of Merger) at 100–01 (“Merger Consideration”).

H. VR Dedicated Fitness Apps Like Within’s Supernatural Offer a Unique Fitness Experience

123. Both Meta and Within refer to VR apps intended to provide immersive at-home structured physical exercise as “deliberate” or “dedicated” fitness apps (“VR dedicated fitness apps”). *E.g.*, Rabkin (Meta) Hr’g Tr. at 831:12–24 (discussing PX179 at 2, “Rade to present a proposal to Rabkin on expanding Beat Saber to deliberate fitness”); PX286 (Meta) at 1 [REDACTED]

[REDACTED] PX62 (Milk (Within) Dep) at 56:14–23 [REDACTED] Milk (Within)

Hr’g Tr. at 681:19–21; PX487 (Meta) at 4 [REDACTED]

[REDACTED] PX55 (Verdu (Meta) Dep.) at 120:18–24; Pruett (Meta) Hr’g Tr. at 263:6–18

(agreeing that a deliberate fitness app is “one that is specifically marketed to customers for the purpose of exercise”), 263:19-264:2; PX4 at 169 [REDACTED]

[REDACTED] & 163 [REDACTED]

[REDACTED] PX60 (Paynter (Meta) 30(b)(6) Dep.) at 22:21-24:1; PX62 (Milk (Within) Dep.) at 56:14-23.

124. They do so because, despite fitness-like movement in some applications, dedicated fitness services offer a different use case and appeal to different users. PX60 (Paynter (Meta) Dep.) at 23:13-24:1 (“incidental fitness” refers to apps that “you could be physically active in an potentially get a workout in, but it wasn’t designed with fitness in mind as the primary use case.”); Pruett (Meta) Hr’g Tr. at 266:13-21 (agreeing that “customers for deliberate fitness applications have different goals than customers for video games”); Milk (Within) Hr’g Tr. at 682:22-683:7; 731:1-7 [REDACTED]

125. More recently, in the spring of 2022, Meta has adopted the terminology “trainer workout” apps to refer to apps it previously referred to as “deliberate fitness” apps. PX60 (Paynter (Meta) 30(b)(6) Dep.) at 22:21-24:20, 65:20-66:13; PX219 (Meta) at 7 [REDACTED]

126. Typical characteristics of VR dedicated fitness apps include workouts designed by trainers or fitness experts and intended to maximize exertion and physical movement for the purpose of exercise. PX487 (Meta) at 4 (deliberate fitness apps are “Designed to allow a player to deliberately set and attain fitness goals with fitness-specific features, i.e., coaching, trackable progress”); PX435 at 8 (defining “deliberate fitness” as “[a]pps that are designed primarily for fitness purposes.”); PX63 (Rabkin (Meta) Dep.) at 179:25-181:13; PX62 (Milk (Within) Dep.)

1 at 33:7-23; Pruett (Meta) Hr’g Tr. at 263:14-264:2 (customers expect deliberate fitness apps to
 2 have features such as calorie tracking, workout regimens, and the ability to set fitness goals);
 3 PX66 (Rubin (Meta) Dep.) at 133:5-11 (referring to Supernatural and FitXR as VR physical
 4 fitness apps).

5 127. VR dedicated fitness apps offer distinct functionality when compared to other
 6 VR apps, including those apps, such as rhythm and active sports games, that provide an
 7 incidental fitness benefit (“incidental fitness apps”). Zuckerberg (Meta) Hr’g Tr. at 1300:18-
 8 1301:2 (“I would consider something to be a fitness app primarily, or in the phrase that you’re
 9 using, a dedicated fitness app, if the whole purpose of the app is fitness and if it were entirely in
 10 VR. But -- and I guess that’s trying to draw some distinction from fitness experiences that use
 11 other platforms or potentially experiences in VR that have a fitness or movement component of
 12 them but are not primarily a fitness thing.”); Rabkin (Meta) Hr’g Tr. at 862:23-863:2
 13 (distinguishing between apps based on “music and dance and rhythm” and those based on
 14 “fitness”); Pruett (Meta) Hr’g Tr. at 266:1-12 (identifying deliberate fitness app features that
 15 distinguish Supernatural from Beat Saber); PX487 (Meta) at 4 (for incidental fitness apps,
 16 “[p]eople are primarily playing games, and as a by-product get a workout (‘come for the games,
 17 stay for the fitness’)”); Koblin (Within) Hr’g Tr. at 606:5-8 (VR games that require some
 18 incidental physical exertion are not a fitness offering).

19 128. For example, VR dedicated fitness apps may feature adjusting difficulty so that
 20 users never “fail” a workout; they may feature workouts designed by trainers or fitness experts;
 21 they are designed to maximize exertion and physical movement for the purpose of exercise; and
 22 they may feature classes or other active coaching. *E.g.*, PX346 (Meta) at 7 (“a critical attribute
 23 of a successful fitness app is the flow of evergreen content - new workouts, instructors, music,
 24 levels, etc. - in a true live experience.”); PX55 (Verdu (Meta) Dep.) at 193:10-23 (“there is the
 25 evergreen flow of content, and then there is the validation and the input provided by subject
 26 matter experts in fitness”); PX66 (Rubin (Meta) Dep.) at 168:15-18 (“They’re subscription,
 27 which requires in the case of most of the fitness apps constant updates, almost daily, with new
 28

1 content”); PX60 (Paynter (Meta) 30(b)(6) Dep.) at 27:9-16 (describing trainers as an important
2 part of trainer workout apps); PX1 (Meta) at 3 n.10 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED] 9 [REDACTED]

7 [REDACTED]

8 129. Indeed, during the Federal Trade Commission’s pre-complaint investigation
9 process, Meta itself emphasized a number of these different features to the Federal Trade
10 Commission to differentiate between VR apps like Supernatural and gaming apps, such as Beat
11 Saber:

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]

27 [REDACTED]

1 PX1 (Meta) at 9.

2 130. Unlike even active and “superficially similar” apps like Beat Saber, dedicated
3 fitness apps “target different users, with distinct demographic characteristics and usage
4 patterns,” have “different pricing strategies and structures,” and each compete with a “distinct
5 and growing set of apps,” including apps on VR platforms. PX1 (Meta at 2-3).

6 131. Meta and Within are not alone in recognizing VR dedicated fitness apps as
7 distinct from VR rhythm and gaming apps: [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED] Garcia (Odders) Hr’g Tr. at 1105:18-
11 1107:1.

12 132. VR dedicated fitness apps are designed, built, and marketed with the intent of
13 providing workout routines and delivering a fitness benefit to the user over time. *E.g.*, PX55
14 (Verdu (Meta) Dep.) at 23:8-20 (“A fitness app to me is one that is designed and built from the
15 ground up to create workout routines that have a fitness effect over time. And if you’re going to
16 make a promise to a consumer around a fitness benefit, then the delivery of that benefit should
17 be pretty carefully constructed and validated.”); Pruett (Meta) Hr’g Tr. at 263:9-18 (fitness apps
18 are “specifically marketed to the customer as being specifically for the purpose of exercise” and
19 they “advertis[e] to the customer that they will get a fitness benefit by using the application”).

20 133. As acknowledged by Meta’s VR content ecosystem leadership, it is “important
21 for an application to communicate clearly that it is a fitness application . . . because customers
22 for deliberate fitness applications have different goals than customers for video games.” Pruett
23 (Meta) Hr’g Tr. at 266:13-20.

24 134. VR dedicated fitness apps typically offer distinct prices as compared to other VR
25 apps—specifically, a subscription-based pricing model as compared to a one-time fee. PX55
26 (Verdu (Meta) Dep.) at 56:11-57:6; Singer (FTC Expert) Hr’g Tr. at 358:23-359:6, (“You will
27 see other markers as well. . . . But, for example, subscription pricing, that’s unique to this
28

category”); *see also* Milk (Within) Hr’g Tr. at 671:10-19; PX66 (Rubin (Meta) Dep.) at 168:15-16.

135. A subscription-based pricing model “maps very well to the problems that a lot of fitness I think related products have, which is that in order to not get boring, in order to make sure that your workout is always fresh and interesting, they need to have new regimens or new music or new workout routines.” Pruett (Meta) Hr’g Tr. at 269:19-23; *see also id.* at 269:5-8 (agreeing that “it was reasonable to expect that fitness apps over time on the Quest platform would trend towards subscriptions as a monetization strategy”).

136. By contrast, the majority of video game applications on the Quest platform are not a good fit for subscriptions as a monetization strategy because most of them do not have an ongoing content pipeline. *Id.* at 270:12-17.

137. VR dedicated fitness apps also attract distinct customers when compared to other VR apps, including incidental fitness apps; specifically, the market for dedicated fitness skews older and more female than other VR categories like “games.” PX118 (Meta) at 2; Stojasavljevic (Meta) Hr’g Tr. at 129:15-16 (“the fact that fitness has more broad appeal to women than gaming in general makes it just even more exciting”); Bosworth (Meta) Hr’g Tr. at 1035:18-22 (agreeing that Meta’s internal analysis reflected its perception that “users of VR fitness apps represent a distinct category of customer compared to overall users of other VR apps on its platform”); PX55 (Verdu (Meta) Dep.) at 61:13-62:13; PX1 (Meta) at 2; PX66 (Rubin (Meta) Dep. at 132:9-11 [REDACTED]

[REDACTED] PX4 (Meta) at 167-168 [REDACTED]

[REDACTED]; *see also* Milk (Within) Hr’g Tr. at 684:16-25; PX62 (Milk (Within) Dep.) at 152:19-153:7; PX66 (Rubin (Meta) Dep.) at 132:7-14

1 [REDACTED]

2 138. Unlike other at-home fitness products, VR dedicated fitness apps enable users to
3 exercise in fully immersive, 360-degree virtual environments. *See generally* DDX6 (Within);
4 Rabkin (Meta) Hr’g Tr. at 835:24-25 (“the primary differentiator of VR is immersion”); PX314
5 (Meta) at 1; PX713 (Within) at 25, 41; PX66 (Rubin (Meta) Dep.) at 245:16-248:11; Koblin
6 (Within) Hr’g Tr. at 606:11-17; Milk (Within) Hr’g Tr. at 675:4-8.

7 139. As Mr. Zuckerberg explained, VR dedicated fitness apps are distinct from other
8 digital fitness apps “in the sense that most VR experiences are different in that you’re embodied
9 and you feel like you’re present there.” Zuckerberg (Meta) Hr’g Tr. at 1298:5-6.

10 140. Fitness is a unique type of experience in VR “in the sense that what the
11 metaverse and AR/VR enable are the sense of immersion and embodiment and physicality that I
12 think is somewhat different from other computing platforms. I think that’s going to be true for
13 fitness just like it is for the other categories as well.” *Id.* at 1299:14-18.

14 141. Movement “is a difference that makes [VR] interesting for a fitness app. But I
15 would say the primary differentiator of VR is immersion, what we call feeling like you’re
16 teleported to a different place, feeling like when you move your head and look around, you’re in
17 a new space and seeing virtual things as if they are real, which is virtual reality.” Rabkin (Meta)
18 Hr’g Tr. at 835:20-836:3.

19 142. “There are [fitness] experiences on phones and computers . . . [but] the
20 physicality and presence that you feel with these platforms is different not just in fitness, but
21 across all of these experiences.” Zuckerberg (Meta) Hr’g Tr. at 1305:18-22.

22 143. The sensors in a VR headset and controllers also allow for a degree of tracking,
23 adjustment, and feedback that non-immersive exercise programs cannot match. *See* DDX6
24 (Within) (demonstrative Supernatural video); PX620 at 16 [REDACTED]

25 [REDACTED] Janszen (VirZoom) Hr’g Tr. at 1140:4-12; PX56 (Carmack
26 (Meta) Dep.) at 30:3-22; PX4 (Meta) at 23 [REDACTED]

27 [REDACTED]

1 [REDACTED]
 2 [REDACTED] & 114 [REDACTED]
 3 [REDACTED]
 4 144. And, unlike other at-home smart fitness devices, VR headsets are fully portable
 5 and take up little space. Vickey (Defendants' Expert) Hr'g Tr. at 1202:12-18 (the Hydrow is a
 6 "very expensive piece of equipment" for which Dr. Vickey did not have room because he
 7 "downsized [his] house"); PX66 (Rubin (Meta) Dep.) at 248:11-13; PX573 (Meta) at 2 (noting
 8 space and portability as distinctions between VR fitness products and Peloton).

9 145. The following examples are illustrative as to how VR fitness apps differ from
 10 other at-home fitness products:

11 a. Nike Training Club: Nike's digital app Nike Training Club
 12 features [REDACTED] DX1222
 13 (Healey (Nike) Dep.) at 44:2-45:15; *see also* Milk (Within) Hr'g Tr. at 677:12-
 14 17 (referring to PX906 at 3 "the home fitness paradigm for the most part, means
 15 copying what an instructor is doing on a screen"). Nike does not [REDACTED]
 16 [REDACTED]
 17 [REDACTED]
 18 [REDACTED] DX1222 (Healey (Nike) Dep.) at 27:15-17,
 19 32:16-33:7, 37:2-5, 43:17-20.

20 b. Equinox: Equinox does not [REDACTED]
 21 [REDACTED]
 22 [REDACTED]
 23 [REDACTED] DX1227 (Klim (Equinox) Dep.) at 16:16-18, 56:1-15. Indeed, Within
 24 saw [REDACTED]
 25 [REDACTED] Koblin (Within) Hr'g Tr. at
 26 615:15-25.

27 c. Apple Fitness+: Apple's Fitness+ app features [REDACTED]
 28

Apple [REDACTED]. *Id.* at 119:2-5.

d. Mirror: Lululemon's Mirror workout hardware device

PX82 (Lange (Lululemon))

Dep.) at 38:5-39:1; 45:5-48:3; 53:20-54:16; 54:17-57:11; 82:21-83:7.

e. Peloton:

. DX1228

1 [REDACTED]
 2 [REDACTED] DX1220 (Garcia (Odders Lab) Dep.) at
 3 137:4-8, 209:3-10; Garcia (Odders Lab) Hr'g Tr. at 1107:6-1108:1 [REDACTED]
 4 [REDACTED]

5 147. Meta's Quest 2 VR headset is also far less expensive than other at-home smart
 6 devices; for example, a Peloton smart bicycle costs over \$1,000, with an additional \$44 per
 7 month subscription cost, compared to the cost of \$399 for the Meta Quest 2 plus \$18.99 per
 8 month for Supernatural. PX15 (Singer Rep.) ¶¶ 39, 42; PX664 (Within) at 1; DX1228 (Sanders
 9 (Peloton) Dep.) at 60:6-20 [REDACTED]
 10 [REDACTED]
 11 [REDACTED]; *see also* PX66 (Rubin (Meta) Dep.) at 252:13-20 [REDACTED]
 12 [REDACTED]; Koblin (Within) Hr'g Tr. at 612:18-613:14.

13 148. Meta has considered partnerships with at least two at-home smart fitness device
 14 makers [REDACTED] which further indicates that Meta does not consider them to
 15 be competitors to VR dedicated fitness apps. PX64 (Rabkin (Meta) 30(b)(6) Dep.) at 30:3-9
 16 [REDACTED]
 17 [REDACTED]

18 149. Moreover, VR dedicated fitness apps target users with less fitness experience,
 19 and those for whom traditional exercise solutions are unappealing or unavailable. PX318 (Meta)
 20 at 1 ("Our opportunity is encouraging users who don't think about fitness much as well as users
 21 with a light routine, not the fitness buff who is better served by the likes of Peloton cycling or
 22 Crossfit classes"); PX56 (Carmack (Meta) Dep.) at 81:15-82:1; PX51 (Cibula (Within) 30(b)(6)
 23 Dep.) at 84:1-19 [REDACTED]
 24 [REDACTED]
 25 [REDACTED]
 26 [REDACTED] PX529 (Meta) at 3-4; PX563
 27 (Meta) at 1 [REDACTED]
 28 [REDACTED]

1 [REDACTED] PX788

2 (Within) at 1, 13-15 [REDACTED]

3 [REDACTED]

4 150. Meta does not view Peloton as a close competitor of VR fitness apps because

5 Meta sees VR as “target[ing] casual fitness users (not elite)”; further, Meta defines “casual

6 fitness users” as “People who do not have a fitness routine that works for them” and an “elite

7 fitness” product as “A product optimized for intensity and calories burned (like Peloton).”

8 DX1003 (Meta) at 4-5.

9 151. Similarly, as Within’s co-founder and CEO Chris Milk has explained, “working

10 out in Supernatural feels like you’re a champion of a sport from the future. I love that and

11 haven’t felt that sense of athleticism ever on a treadmill or an exercise bike.” PX906 at 3-4.

12 152. [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED] PX788 at 1; Milk (Within) Hr’g Tr. at 4 at 691:15-17

16 [REDACTED]

17 [REDACTED]

18 **I. Within’s Supernatural Is the Market Leader Among VR Dedicated Fitness**

19 **Apps**

20 153. Launched in April 2020, Within’s Supernatural is now the market leader among

21 VR dedicated fitness apps, [REDACTED] PX15 (Singer Rep.) ¶¶ 73-75; Singer

22 (FTC Expert) Hr’g Tr. 386:14-24 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 154. Through deals with major music studios, Supernatural continues to grow its

26 catalog, which includes songs from A-list artists like Katy Perry, Imagine Dragons, Lady Gaga,

27 and Coldplay. Dkt. No. 83 (Defendant Within Unlimited, Inc.’s Answer and Affirmative

Defenses) ¶ 25; *see also* Koblin (Within) Hr’g Tr. at 605:6-14 (Music is extremely important to Supernatural); Milk (Within) Hr’g Tr. at 718:9-16 [REDACTED]

155. Customers access Supernatural’s offerings by paying a subscription fee of \$18.99 per month or \$179.99 per year. Dkt. No. 83 (Defendant Within Unlimited, Inc.’s Answer and Affirmative Defenses) ¶¶ 25, 47; PX65 (Koblin (Within) Dep.) at 37:17-38:4.

156. Supernatural is presently only available on Meta’s Quest headsets. Dkt. No. 83 (Defendant Within Unlimited, Inc.’s Answer and Affirmative Defenses) ¶ 25; Bosworth (Meta) Hr’g Tr. at 1030:21-23.

157. Other VR dedicated fitness apps include FitXR, Holofit, VZFit, Les Mills Bodycombat and Liteboxer VR, although Supernatural is the [REDACTED] market leader. PX15 (Singer Rep.) at ¶ 76, Table 2-A; *see also* Koblin (Within) Hr’g Tr. at 626:5-11 [REDACTED]

[REDACTED]; PX62 (Milk (Within) Dep.) at 137:14-138:8 ([REDACTED]) [REDACTED] Zuckerberg (Meta) Hr’g Tr. at 1301:4-10 (agreeing Supernatural, FitXR, and Les Mills Bodycombat are all “fully focused on fitness”); PX53 (Pruett (Meta) Dep. Tr.) at 138:17-25 (agreeing that Supernatural, FitXR, and Holofit are all deliberate fitness products); PX5 (Within) at 16-17 [REDACTED]

[REDACTED]; PX1 at 23 (listing nine VR competitors of Supernatural, including two owned by FitXR); Garcia (Odders) Hr’g Tr. at 1106:12-21 [REDACTED]

158. Supernatural and [REDACTED] comprised [REDACTED] of revenues generated by VR dedicated fitness apps in 2022, according to the available data produced by Meta and Within. PX15 (Singer Rep.) ¶ 76, Table 2-A; Singer (FTC Expert) Hr’g Tr. at 386:19-22 [REDACTED]

1 [REDACTED] 387:18-389:23.

2 159. Including additional applications such as Gym Class does not meaningfully
3 change the analysis:

4 a. Even if one considers those apps as VR dedicated fitness apps, Supernatural and
5 [REDACTED] still comprise [REDACTED] of the revenues generated by VR dedicated fitness
6 apps. PX16 (Singer Rebuttal Rep.) ¶ 127, Table 2.

7 b. When considering usage—specifically, hours spent in each app—[REDACTED]
8 [REDACTED] of hours spent in 2022. DX1230
9 (Carlton (Defendants' Expert) Rep.) ¶ 59, Table 8.

10 160. Moreover, even considering both VR deliberate *and* incidental fitness apps
11 *together*, there are only [REDACTED] monthly active users, followed by [REDACTED]
12 [REDACTED]. *See* PX435 (Meta) at 30; *see also* PX15 (Singer Rep.) at ¶ 75,
13 Table 2-B.

14 161. Within has identified [REDACTED] as Supernatural's [REDACTED] PX762
15 (Within) at 1 [REDACTED] *see also* Koblin (Within) Hr'g Tr.
16 at 626:6-627:5; PX731 [REDACTED]
17 [REDACTED]; PX62 (Milk Dep.) at 153:8-18.

18 162. It has also acknowledged that [REDACTED]
19 [REDACTED] *See* PX5 at 41; Koblin (Within) Hr'g Tr. at 625:13-626:1

20 [REDACTED]
21 [REDACTED]
22 [REDACTED] PX705 [REDACTED]

23 [REDACTED]
24 163. Supernatural users [REDACTED]
25 [REDACTED]. Koblin (Within) Hr'g Tr. at 627:18-21.

26 164. Meta's internal analyses likewise suggest that there is "Cannibalization among
27 Deliberate Fitness Apps," [REDACTED]
28 [REDACTED]

1 [REDACTED] PX435 (Meta) at 029; *see also*
2 Carlton (Defendants' Expert) Hr'g Tr. at 1399:2-6 [REDACTED]

3 [REDACTED]
4 [REDACTED] *id.* at 1399:21-23
5 (" [REDACTED] ").

6 165. [REDACTED]
7 [REDACTED]
8 [REDACTED] PX682; Koblin (Within) Hr'g
9 Tr. at 633:9-16.

10 166. [REDACTED]
11 [REDACTED]
12 [REDACTED] PX704; Koblin (Within) Hr'g Tr. at 630:23-631:4.

13 167. [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED] Koblin (Within)
17 Hr'g Tr. at 632:2-13.

18 168. [REDACTED]
19 [REDACTED]
20 [REDACTED] . PX710 at 1-2

21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED] Koblin (Within) Hr'g Tr. at 622:11-14; PX65
26 (Koblin Dep.) at 196:12-15 [REDACTED]
27 [REDACTED]

1 [REDACTED]
 2 169. Supernatural's [REDACTED]
 3 [REDACTED]
 4 [REDACTED]. PX479 (Meta)
 5 at 4 [REDACTED]
 6 [REDACTED] PX478 (Meta) at 4
 7 [REDACTED]
 8 [REDACTED]; Stojasavljevic (Meta) Hr'g Tr. at 168:15-17, 24-25 ("Subscriptions were
 9 broken on the platform . . . I believe at this time . . . [Supernatural was] using an off platform"
 10 subscription processing service); PX53 (Pruett (Meta) Dep.) at 266:15-271:16.

11 170. In a candid internal exchange, Meta staff suggested that the fact that [REDACTED]
 12 [REDACTED]
 13 [REDACTED]. PX381 (Meta)
 14 at 1; *see also* PX66 (Rubin (Meta) Dep.) at 209:20-21 [REDACTED]
 15 [REDACTED]; Stojasavljevic (Meta) Hr'g Tr. at 168:15-16 ("What I
 16 didn't know at the time is that subscriptions were broken on the platform . . .").

17 **J. Fitness Is a Key Use Case for VR Because Dedicated Fitness Apps Drive**
 18 **New—And More Diverse—Users to VR**

19 171. Within's CEO Chris Milk has referred to fitness as the [REDACTED]
 20 PX62 (Milk (Within) Dep.) at 22:20-23:20; PX657 (Within) at 1; PX965 at 11; Milk (Within)
 21 Hr'g Tr. at 673:2-11.

22 172. Meta has observed that fitness brings opportunities to both attract new users to
 23 VR and to sell more content to existing users in ways that can be habit-forming, encouraging
 24 repeat use and high user retention rates. *E.g.*, PX2 at 2 ("VR fitness, though still relatively
 25 small, is a broadly appealing, fast growing, habitual use case that demonstrates potential to
 26 further this mission by broadening VR's appeal to new audiences and increasing platform
 27 retention."); PX55 (Verdu (Meta) Dep.) at 107:7-24; *see also infra* Findings of Fact ¶¶ 173–
 28

1 188.

2 173. [REDACTED]

3 [REDACTED], Meta recognized that fitness was “retentive” and “could attract a broader audience,
4 particularly female” and older users. PX207 (Meta) at 3, 12; PX532 (Meta) at 1 (“Fitness is
5 retentive”); Stojasavljevic (Meta) Hr’g Tr. at 112:18-113:14; PX55 (Verdu (Meta) Dep.) at
6 62:11-13 (“Q. And you also thought it could lead to older users as well; is that right? A. I did.”);
7 *see also* Milk (Within) Hr’g Tr. at 684:10-685:2; PX2 (Meta) at 2; Bosworth (Meta) Hr’g Tr. at
8 1035:8-22.

9 174. On top of its diversification of the user base, and retention of that user base,
10 Meta also recognized that fitness was “uniquely friendly to the subscription business model,”
11 which executives at Meta saw as “the future.” PX118 (Meta) at 2 (also noting that fitness apps
12 “show promising patterns of engagement and retention”); PX386 (Meta) at 12 (deliberate fitness
13 [REDACTED] Bosworth (Meta) Hr’g Tr. at 1042:8-1043:15; PX528 (Meta) at 2

14 [REDACTED]
15 [REDACTED]
16 175. “From a pure business perspective, you know, a subscription is an ongoing, an
17 ongoing payment method, right? You continue to monetize the user over time as long as the
18 customer continues to subscribe.” Pruett (Meta) at Hr’g Tr. at 269:15-18; *see also id.* at 266:1-7
19 (one of the features that “differentiated Supernatural from video games like Beat Saber” is “the
20 subscription monetization system that they [Within] had proposed.”).

21 176. As such, by early 2021, Meta was “starting to look closely at the fitness trend
22 since it’s very exciting.” PX448 (Meta) at 2.

23 177. Mr. Rabkin agreed that fitness highlights the unique nature of VR in a way that
24 other VR uses cases may not and explained that “every new use case in VR tends to bring out a
25 different aspect of VR for the people. I think fitness definitely does that, you know, body and
26 exercise connection for people obviously. . . . As a use case it’s a little bit different. It highlights
27 different things about VR that other use cases do not.” Rabkin (Meta) Hr’g Tr. at 836:23-
28

1 837:11.

2 178. According to Mr. Rabkin, “everyone internally” at Meta was “very excited”
3 about VR fitness: “[W]hen there is momentum, when people are getting into it and doing a new
4 thing in VR, everyone internally, from every line engineer to the very senior leader, we get very
5 excited. That’s another proof point, another kind of brick in the wall of, hey, VR is becoming
6 something, and it’s not just for gaming, like there’s a new thing.” Rabkin (Meta) Hr’g Tr. at
7 811:12-18.

8 179. As such, Meta executives, including Mr. Zuckerberg, began to repeatedly, and
9 consistently, extol the potential of fitness to become a key “use case” for VR. Zuckerberg
10 (Meta) Hr’g Tr. at 1297:11-15 (“Q. And it’s an exciting new use case; correct? A. Yeah, I think
11 so. Q. You hope that fitness can emerge as a key use case in VR; right? A. I think it would be
12 great if it could, yes.”), 1305:5-6 (“I thought this could be a use case in VR and AR and showed
13 some examples that I thought were exciting.”), and 1301:19-1303:22 (discussing references to
14 VR fitness as well as Facebook’s quarterly earnings calls in the first and second quarters of
15 2021); PX118 (Meta) at 1 (Mr. Zuckerberg: “I’m bullish on fitness.”).

16 180. According to Mr. Verdu, former Vice President of VR Content, Mr. Zuckerberg
17 “certainly developed an enthusiasm for the category, as I had.” PX55 (Verdu (Meta) Dep.) at
18 174:13-175:23; *see also* Stojasavljevic (Meta) Hr’g Tr. at 130:19-131:1.

19 181. This interest at the highest levels of the company led Meta employees to
20 conclude that, in internal analyses, they would need to show “perhaps not much” to justify
21 investment in the VR dedicated fitness space. PX125 (Meta) at 3.

22 182. Indeed, members of the VR Content organization had determined, by spring
23 2021, that “fitness is the right place to invest” and had “the potential to become core to VR.”
24 PX522 at 1 (fitness is the “right category”); Stojasavljevic (Meta) Hr’g Tr. at 111:5-9 (describing
25 PX522 and noting “at that time [January 2021] fitness was a category that we were looking at
26 that might be a place to get into”); PX179 (Meta) at 2 (“Fitness has the potential to become core
27 to VR. We believe Fitness will broaden and diversify our user base and increase Oculus
28

frequency of use”); PX52 (Stojasavljevic (Meta) Dep.) at 74:18-19 (“what I mean by ‘right category’ is fitness is the right place to invest”).

183. Since that time, Meta has pursued a multifaceted strategy to promote fitness on its devices, including developing platform-level tools such as Oculus Move, a fitness tracker that Quest users can deploy to track their time spent moving and calories burned across apps. Zuckerberg (Meta) Hr’g Tr. at 1305:23-1304:6; Carmack (Meta) Hr’g Tr. at 558:22-23; Rabkin (Meta) Hr’g Tr. at 832:10-11 (“We were very busy on the acquisition strategy and on the platform investments for fitness.”); PX58 (Dass (Meta) 30(b)(6) Dep.) at 10:21-11:8.

184. Meta built Oculus Move from scratch [REDACTED] PX50 (Zuckerberg (Meta) Dep.) at 131:7-14; [REDACTED]

[REDACTED] Zuckerberg (Meta) Hr’g Tr. at 1289:4-24.

185. Meta has also produced the Quest 2 Active Pack, which includes a wipeable interface, wrist straps, and adjustable knuckle straps, PX63 Rabkin (Meta) Dep. at 225:5-227:16; PX50 (Zuckerberg (Meta) Dep.) at 214:11-23, and has considered [REDACTED]

[REDACTED] PX349 (Meta) at 1; PX557 (Meta) at 49, 64; PX438 (Meta) ([REDACTED])

186. By August 2021, Meta had deemed fitness a [REDACTED] PX314 (Meta) at 1; PX63 (Rabkin (Meta) Dep.) at 218:11-219:1.

187. Fitness continues to be a [REDACTED] for Meta; an April 2022 strategy document that was prepared for Mr. Zuckerberg identified fitness as [REDACTED] [REDACTED] PX386 (Meta) at 11; Bosworth (Meta) Hr’g Tr. at 1041:6-17.

188. At that time, Meta recognized deliberate fitness as [REDACTED] [REDACTED] PX386 (Meta) at 12; Bosworth (Meta) Hr’g Tr. at 1042:8-23; Carmack (Meta) Hr’g Tr. at 560:8-22; PX318 at 1 (“fitness has organically grown to 20 percent of Quest MAP

and is one of the [fastest growing] Oculus user segments” (brackets in original)).

189. Because of fitness’s appeal to a broader demographic of VR users, even Defendants’ economic expert recognizes that “there’s no question that” fitness “could be important to bring in some demographic, some new people” to the Quest Platform. Carlton (Defendants’ Expert) Hr’g Tr. at 1372:23-24.

K. Meta Saw the Beat Saber Acquisition as a “Vector Into Fitness”

190. Recognizing the potential for VR dedicated fitness apps to both expand its user audience and drive retention, and thus propel headset sales and app monetization, Meta has explored multiple pathways to enter VR dedicated fitness with its own product. *See infra* Findings of Fact ¶¶ 191–211; 234–287.

191. One natural pathway was expanding Beat Saber, which employs the same slashing mechanic as Supernatural, to include fitness offerings. Stojavljevic (Meta) Hr’g Tr. at 137:8-14; Rabkin (Meta) Hr’g Tr. 851:15-19 (Beat Saber “was a very, very natural target for ideas from people all over the team to say, hey, is this a thing that could be expanded? Is this a thing that could be grown? And there was a lot of buzz around that thinking at that time.”).

192. Meta has acknowledged the similarity in mechanics between Beat Saber and Supernatural. PX2 (Meta) at 3 (discussing Within’s reliance “on a proven game mechanic”); Bosworth (Meta) Hr’g Tr. at 1034:12-20; *see also* Stojavljevic (Meta) Hr’g Tr. at 137:15-17 (“I viewed it as a derivative title of Beat Saber”).

193. Within has [REDACTED] Milk (Within) Hr’g Tr. at 682:18-21; PX965 at 8-9.

194. And Meta employees have repeatedly referred to Supernatural as a “clone” or “knock-off” of Beat Saber. *E.g.*, Pruett (Meta) Hr’g Tr. at 244:25-245:5, 265:24-25; PX246 (Meta) at 1; PX110 (Meta) at 1; PX466 (Meta) at 1; PX561 (Meta) at 1; Stojavljevic (Meta) Hr’g Tr. at 156:5-23; PX179 (Meta) at 1; *see also* Milk (Within) Hr’g Tr. at 682:18-21

1 [REDACTED]
2 195. Beat Saber is widely recognized as providing incidental fitness benefits, and
3 many users play Beat Saber for exercise. Carmack (Meta) Hr’g Tr. at 561:20-23; PX525 at 1;
4 Stojasavljevic (Meta) Hr’g Tr. at 138:3-10 (Beat Saber is “already the number one fitness app”;
5 the number of people that use the “Fit Beat” track in Beat Saber exceeds many fitness titles);
6 PX66 (Rubin (Meta) Dep.) at 167:17-24 [REDACTED] PX229 (Meta) at 5.

7 196. As early as August 2019, and prior to its acquisition of Beat Games, Meta was
8 pressing Beat Games to build a sequel to Beat Saber with a “fitness feature,” [REDACTED]
9 [REDACTED] PX249 (Meta) at 1 [REDACTED]
10 [REDACTED] PX55 (Verdu (Meta) Dep.) at 21:10-22:3, 27:6-28:1.

11 197. Mr. Verdu, the sponsor for the Beat Games deal, believed Beat Saber could go
12 further and develop a version with the functionalities of a VR dedicated fitness app. PX55
13 (Verdu (Meta) Dep.) at 23:21-24:1, 63:10-21; PX342 (Meta) at 2 [REDACTED]
14 [REDACTED]

15 198. When Meta was weighing a bid to acquire Beat Games later that year, it foresaw
16 Beat Saber [REDACTED] PX342 (Meta) at 2, with the
17 [REDACTED] PX162 (Meta) at 3; PX55 (Verdu (Meta)
18 Dep.) at 90:7-15.

19 199. Deal strategy documents [REDACTED]
20 [REDACTED]
21 [REDACTED] PX162 (Meta) at 3.

22 200. According to Mr. Verdu, the acquisition “was a way for us to enter the home
23 fitness space, which I certainly thought would be a way of getting a whole bunch of people to
24 adopt VR and buy headsets who might not otherwise do so.” PX55 (Verdu (Meta) Dep.) at
25 60:8-12; *see also id.* at 63:4-21.

26 201. Mr. Verdu was “enchanted with the idea that Beat Saber could be adapted either
27 with a new -- probably with a new version, to -- to be a fitness app more than just a game app.”
28

PX55 (Verdu (Meta) Dep.) at 21:20-22:3.

202. While the Quest and Quest 2 were initially “basically game platforms competing against a whole bunch of other game platforms, and appealing to the demographic that primarily consumes content on consoles,” fitness provided “a more broad-based and appealing space to get into, and -- and so, [Verdu] was always looking for sort of different use cases for VR that could help grow the medium.” PX55 (Verdu (Meta) Dep.) at 22:8-17.

203. Not surprisingly, since its acquisition of Beat Games in November 2019, Meta has had its eye on building a dedicated fitness aspect into Beat Saber. PX55 (Verdu (Meta) Dep.) at 97:19-24 (“I will say that it was fairly common knowledge that we were trying very hard to get Beat Games to adapt Beat Saber to become a fitness app”).

204. Modifying Beat Saber to “vector into fitness” was of strategic value to Meta because it was “a way for [Meta] to enter the home fitness space, which” senior leaders like Michael Verdu “thought would be a way of getting a whole bunch of people to adopt VR and buy headsets who might not otherwise do so.” PX55 (Verdu (Meta) Dep.) at 59:25-60:12; PX342 at 2, 5 [REDACTED]

205. Meta “has the ability to specifically modify Beat Saber if necessary for that because that studio is now a part of Meta.” Carmack (Meta) Hr’g Tr. at 559:4-6.

206. The Beat Games founders—who remained with their studio post-acquisition— [REDACTED]. *E.g.*, PX468 (Meta) at 1-2; PX411 (Meta) at 1 (Beat Games founder Jaroslav Beck: [REDACTED]

[REDACTED]

PX458 (Meta) at 5 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

207. By April 2020, just four months after the Beat Games acquisition and the same

month that Supernatural launched, Meta released a “particular song that we were exploring fitness with for” for Beat Saber called “FitBeat.” Stojsavljevic (Meta) Hr’g Tr. at 119:21-120:17 (“the idea [was] that we could do something interesting with fitness there”); *see also* PX56 (Carmack (Meta) Dep.) at 63:8-64:1 [REDACTED] PX77 (Beck (Meta) Dep.) at 101:23-103:11.

208. Beat Games’ cofounder Jaroslav Beck, who created FitBeat, repeatedly referred to it as “the fitness song” before naming it FitBeat. PX586 (Meta) at 1; PX376 (Meta) at 3.

209. From the day of its launch, FitBeat earned atypical acclaim from players to the point that Mr. Beck wrote [REDACTED] PX575 (Meta) at 7.

210. Because of the size of the Beat Saber userbase, the number of players that used FitBeat at the beginning of 2021 was “larger than any fitness app” at that time. Stojsavljevic (Meta) Hr’g Tr. at 119:17-120:7.

211. In addition to FitBeat, Meta added a way to “loop” gameplay so users could keep up physical activity in Beat Saber without stopping. PX54 (Bosworth (Meta) Dep.) at 141:19-22

L. Within Perceived Meta as a Potential Entrant into VR Dedicated Fitness

212. Given Meta’s vast resources, the market’s potential, and the similarity between Beat Saber and Supernatural, Within recognized that Meta was uniquely poised to enter the VR dedicated fitness. *Infra* Findings of Fact ¶¶ 213–225.

213. [REDACTED]

[REDACTED] PX607 (Within) at 2.

214. Within’s investors did so as well, as demonstrated by a [REDACTED]

[REDACTED]
[REDACTED]. DX1083 (Within) at 15-16; Milk (Within) Hr'g Tr. at 706:4-9, 707:8-708:5.

215. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. DX1083 (Within) at 16-25;
Milk (Within) Hr'g Tr. at 706:4-9, 707:12-708:5, 766:18-767:1 [REDACTED]
[REDACTED]

216. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] PX730 (Within) at 1; Milk (Within) Hr'g Tr. at 692:22-693:6;
694:19-695:13, 695:18-23, 696:7-22.

217. Specifically, Mr. Milk was concerned that [REDACTED]
[REDACTED]
[REDACTED] Milk (Within) Hr'g Tr. at
696:18-697:22.

218. In response to this threat, Mr. Milk stated that [REDACTED]
[REDACTED] PX730 (Within)
at 1; Milk (Within) Hr'g Tr. at 695:18-23.

219. Another Within document from this time period reads: [REDACTED]
[REDACTED] PX619 (Within) at 4; Milk (Within) Hr'g Tr.
at 699:7-16.

220. Within's concerns continued following the launch of Supernatural: for example,
in a June 2020 Supernatural strategy presentation, [REDACTED]
[REDACTED] PX615 (Within) at 8; Milk (Within) Hr'g

1 Tr. at 704:14-20.

2 221. [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED] PX62 (Milk (Within) Dep. at 112:22-113:12; PX729 (Within) at 1.

6 222. Meta also hired away the head of product for Supernatural at Within to work at
7 Meta following the Supernatural launch, which was a [REDACTED] to Within. PX767 (Within)
8 at 1, Milk (Within) Hr'g Tr. at 712:13-22; PX111 (Meta) at 1.

9 223. Meta has hired several other Within employees and continues to do so,

10 [REDACTED]

11 [REDACTED] PX767 (Within) at 2; Milk (Within) Hr'g Tr. at 711:22-714:4.

12 224. [REDACTED]

13 [REDACTED]

14 [REDACTED] Milk (Within)
15 Hr'g Tr. at 713:20-25.

16 225. In the summer of 2020, [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 PX305 (Meta) at 2; PX54 (Bosworth (Meta) Dep.) at 178:14-79:22.

20 226. Meta also knew that Within perceived it as a potential entrant into the VR
21 dedicated fitness market; during a meeting with Within in April 2021, Melissa Brown, head of
22 Meta's Developer Relations, wrote to Michael Verdu and Anand Dass: "They also very much
23 worry that we will create a fitness first app internally that takes their market share." PX514
24 (Meta) at 2; *see also* PX67 (Brown (Meta) Dep.) at 115:5-117:18.

25 227. Based on this threat, Within developed competitive strategies for Supernatural
26 with the specter of Meta's potential entry in mind. *Infra* Findings of Fact ¶¶ 229–232.

27 228. Within has long recognized that it must innovate and continually improve its

product to distance itself from potential competition; as Within’s CEO explained, [REDACTED]

[REDACTED]” PX621 (Within) at 2.

229. [REDACTED]

[REDACTED] PX615 (Within) at 9.

230. Within also sought to [REDACTED]

[REDACTED] PX615 (Within) at 9

231. Within’s efforts ultimately led Within executive Jonny Ahdout to remark in October 2021, while preparing to launch Within’s boxing modality and publicizing the vast catalogue of songs available to Supernatural users: [REDACTED]

[REDACTED] PX616 (Within) at 2.

232. Within was also concerned about making any moves that would limit its ability to compete against Meta as a potential entrant; [REDACTED]

[REDACTED].” PX620 (Within) at 36; Milk (Within) Hr’g Tr. at 700:16-701:2.

233. The same document next warns that [REDACTED] PX620 (Within) at 36; Milk (Within) Hr’g Tr. at 702:13-17.

M. Meta Gets “Serious” About Fitness and Aims to Develop Its Own VR Dedicated Fitness App

234. The COVID-19 crisis, which occurred just after Meta’s acquisition of Beat Games in late 2019, naturally heightened Meta’s longstanding interest in the VR dedicated fitness space. PX207 (Meta) at 3 (“COVID was the perfect stimulus”).

235. In addition, holiday usage data from 2020 showed that fitness “might have

1 product market fit,” and drove higher percentages of women to Meta’s VR platform than games.
2 Stojasavljevic (Meta) Hr’g Tr. at 111:20-112:21, 127:13-16.

3 236. By mid-February 2021, a combination of holiday data, internal chatter, and
4 social media led to excitement about fitness as a use case, as Meta saw fitness as a potential
5 segment beyond gaming that could appeal to women and make Meta’s VR devices more general
6 devices instead of niche gaming devices. *Id.* at 128:11-13; 129:15-16; PX52 (Stojasavljevic
7 (Meta) Dep.) at 84:17-22 (“At that time – this would – this is mid-February – more of the org
8 had looked at that holiday data, and there was a lot of discussion about an excitement about the
9 fitness segment, particularly growing that female demographic on the platform and having
10 potential product market fit.”).

11 237. Chatter about VR fitness was “all over” Meta: it was “cross-functional,” it was
12 “in internal work groups,” and it was coming from fans of Oculus outside Reality Labs—in
13 short “it was coming throughout the organization.” Stojasavljevic (Meta) Hr’g Tr. at 129:17-25.

14 238. Thus, by February 2021, the VR Content organization recognized that “we need
15 to get serious about doing something big in fitness.” PX189 (Meta) at 1.

16 239. Something “big in fitness” meant Meta “should do a really good title in that
17 space” which could have meant building something in the fitness space or “it could have been a
18 funded application, it could have been better positioning in the store for fitness . . . it could have
19 been an acquisition. It was just some way to fulfill what customers were telling [Meta] that they
20 wanted.” Stojasavljevic (Meta) Hr’g Tr. at 131:4-21.

21 240. Mr. Stojasavljevic specifically proposed building something in the fitness space,
22 *id.* at 131:18-25, which Meta “definitely” has the capabilities to do. Rabkin (Meta) Hr’g Tr. at
23 815:7-8.

24 241. Given this excitement, in early 2021 Meta engaged in “a strategy exercise to
25 decide between [its] alternatives” in fitness. PX117 (Meta) at 1.

26 242. As part of this exercise, Mr. Stojasavljevic began exploring a separate Beat Saber
27 fitness offering, including through a partnership with Peloton, which “would be killer.” PX189
28

(Meta) at 1; PX52 (Stojsavljevic (Meta) Dep.) at 81:11-12, 82:23-24 (“It would have been a – a fitness application or potentially a fitness mode of the existing game. . . . I was interested in it specifically because of the holiday data which we reviewed in early 2021, yes.”).

243. Mr. Verdu “was very excited about it and was trying to convince, you know, [Mr. Rabkin and] Mark Zuckerberg,” Rabkin (Meta) Hr’g Tr. at 851:20-852:8, and told Mr. Stojsavljevic “to pursue the idea further,” Stojsavljevic (Meta) Hr’g Tr. at 135:3-12; *accord* PX52 (Stojsavljevic (Meta) Dep.) at 90:18-25; Rabkin (Meta) Hr’g Tr. at 851:20-25 (Verdu

244. Mr. Rabkin was [REDACTED]
[REDACTED]
[REDACTED] PX63 (Rabkin (Meta) Dep.) at 172:6-173:5.

245. And Mr. Rubin [REDACTED]
[REDACTED] PX66 (Rubin (Meta) Dep.) at 125:19-126:12.

246. Mr. Stojsavljevic saw the proposal as a brand licensing deal with Peloton that would get Meta credibility as a fitness content, as well as access to coaches. Stojsavljevic (Meta) Hr’g Tr. at 132:17-133:3.

247. Stojsavljevic and Verdu discussed the Beat Saber fitness idea with Mr. Verdu on multiple occasions. *See, e.g.*, PX189 (work chat between Mr. Stojsavljevic and Mr. Verdu about “doing something big in fitness”); PX524 (February 19, 2021 calendar invite to discuss “Beat Games update, fitness idea”).

248. A Peloton partnership appealed to Mr. Verdu “just because it would be a way of making a big splash in the home fitness market with a brand that was already established there, and a collection of subject matter experts who could help us.” PX55 (Verdu (Meta) Dep.) at 201:24-202:8.

249. Other members of the VR Content organization were similarly excited about a Beat Saber partnership with Peloton in February 2021. PX256 (Meta) at 1 [REDACTED]

1 [REDACTED]; PX111 (Meta) at 1.

2 250. During a February 23, 2021 meeting with Mr. Stojasavljevic and others, Bill
3 Allred, the former head of product at Within for Supernatural and newly hired Meta employee,
4 Stojasavljevic (Meta) Hr’g Tr. at 145:23-146:17, discussed his background at Supernatural and
5 noted that he was “really intrigued by the idea of partnering with Peloton, which seems like it
6 would supercharge content creation while also impacting device sales via the brand affiliation
7 more than owning a fitness studio.” PX111 (Meta) at 1.

8 251. He and Mr. Stojasavljevic discussed the process of creating a tool chain to create
9 the song maps needed for the regular content releases a fitness product could need. Stojasavljevic
10 (Meta) Hr’g Tr. at 148:14-21.

11 252. A March 2021 presentation entitled “Operation Twinkie” declared Peloton and
12 Beat Saber “a natural fit” and proposed partnering with Peloton to “position[] Beat Saber
13 directly as a fitness app.” PX527 (Meta) at 5.

14 253. Subscription services are the best path to a financially successful VR platform,
15 PX118 (Meta) at 2; PX306 (Meta) at 2 [REDACTED]

16 [REDACTED]), [REDACTED]
17 [REDACTED] PX342
18 (Meta) at 2, 5 [REDACTED]

19 [REDACTED]
20 [REDACTED]).

21 254. Besides a partnership with an established fitness brand like Peloton, other means
22 for expanding Beat Saber into dedicated fitness included organically building out the Beat Saber
23 app, through hiring efforts that would take “8-12mos . . . conservatively.” PX144 (Meta) at 1;
24 Stojasavljevic (Meta) Hr’g Tr. at 142:2-8.

25 255. At this time, Messrs. Zuckerberg and Bosworth were supportive of “[g]rowing
26 [Meta’s first-party] studios organically, essentially hiring more people in the studios to see if
27 they can make more great products.” PX55 (Verdu (Meta) Dep.) at 204:22-205:8.

1 Saber into fitness. Zuckerberg (Meta) Hr’g Tr. at 1311:21-1312:3 (testifying that “I’m not sure
 2 that a formal process would have been required”); PX50 (Zuckerberg (Meta) Dep.) at 144:2-11
 3 (“[REDACTED]
 4 [REDACTED]”).

5 265. Moreover, in reference to expanding Beat Saber into a dedicated fitness app, Mr.
 6 Zuckerberg explained that “I do not believe that I ever told people that they could not expressly
 7 do that.” Zuckerberg (Meta) Hr’g Tr. at 1311:10-16.

8 266. Mr. Zuckerberg responded supportively and enthusiastically within minutes to
 9 Mr. Verdu’s March 4 email: “I’m bullish on fitness. A partnership with Peloton for Beat Saber
 10 sounds awesome! I’d love to see that happen. Let me know how I can help.” PX118 (Meta) at 1.

11 267. In sending his response, Mr. Zuckerberg was expressing enthusiasm for the idea
 12 of a partnership between Peloton and Beat Saber for a VR dedicated fitness app and hopeful that
 13 others would follow up on the idea. Zuckerberg (Meta) Hr’g Tr. at 1310:22-1311:3.

14 268. That very same day, on March 4, 2021, Messrs. Verdu and Stojasavljevic
 15 finalized a presentation entitled “Operation Twinkie,” which was part of a broader plan to
 16 expand the content organization. Stojasavljevic (Meta) Hr’g Tr. at 107:23-108:5, 118:10-14.

17 269. “Operation Twinkie” described “strategies” including “Build a wholly owned
 18 fitness offering using a combination of in-house tech and acqui-hired talent.” PX527 (Meta) at
 19 1.

20 270. Despite the fact that Meta had not positioned Beat Saber as a fitness app beyond
 21 the release of a single track, Meta had seen signals that some people were already using Beat
 22 Saber for fitness. *See supra* Findings of Fact ¶ 195, Stojasavljevic (Meta) Hr’g Tr. at 120:6-14.

23 271. Meta had concerns that—because Beat Saber was a game—it would not have
 24 credibility in the fitness space without an established fitness brand partner. Stojasavljevic (Meta)
 25 Hr’g Tr. at 120:18-121:3.

26 272. A partnership could also provide Meta with access to coaches. *Id.* at 121:9-16.

27 273. As part of the proposal, Mr. Stojasavljevic and his collaborators named Armature
 28

1 as the team to “Acquihire” in order to “build a fitness-first product.” PX 527 (Meta) at 8.

2 274. If Meta needed to hire new employees, however, it estimated it would need
3 approximately 20 to 30 people to do the work associated with a Beat Saber fitness offering in
4 connection with Peloton. Stojasavljevic (Meta) Hr’g Tr. at 143:8-12.

5 275. Meta viewed time to market as “important when you have a nascent market,” and
6 believed that an “acqui-hire was a way to shortcut” a hiring process that could take as long as 8-
7 12 months before Meta could start building the product. PX144 (Meta) at 1; Stojasavljevic
8 (Meta) Hr’g Tr. at 140:1-8, 142:2-8.

9 276. Armature in particular had a track record of co-development—collaborating with
10 partners to bring a product to market—that was “very rare.” Stojasavljevic (Meta) Hr’g Tr. at
11 124:23-126:6 (describing Armature’s co-development expertise).

12 277. Armature was not just a developer, it was a AAA developer—a developer of
13 apps that are both high-quality and large-scale. PX144 (Meta) at 1; Stojasavljevic (Meta) Hr’g
14 Tr. at 142:23-143:7.

15 278. At the time, in March 2021, Armature had a team working on Resident Evil,
16 which has since been released, as well as a team that had been doing contract work for studios
17 other than Meta, which could have been repurposed for a Beat Saber fitness project.
18 Stojasavljevic (Meta) Hr’g Tr. at 142:13-22.

19 279. The “Operation Twinkie” presentation also proposed the acquisitions of Twisted
20 Pixel, Camouflaj, and Darkwind in order to build “exclusive system-sellers content.” PX527
21 (Meta) at 4, 11-12; Stojasavljevic (Meta) Hr’g Tr. at 126:11-127:2.

22 280. Exclusive system sellers content is content that would only be available on
23 Meta’s platform. Stojasavljevic (Meta) Hr’g Tr. at 119:3-10.

24 281. Meta ultimately did acquire Armature, as well as Camouflaj, Darkwind, and
25 Twisted Pixel. *Id.* at 81:11-16, 127:3-11.

26 282. In addition to existing game studios, or engaging with Armature, Meta also has
27 other capabilities that would enable it to expand Beat Saber into fitness, including a technical
28

1 setup that would allow “anyone” with video recording capabilities to shoot stereoscopic video
2 for VR, *id.* at 144:2-25, and a team of lawyers and business development personnel called “FB
3 Music” or “Facebook Music” that work on music licensing. *Id.* at 158:12-25.

4 283. The “Operation Twinkie” presentation recognized that strong brand awareness
5 around Beat Saber would have facilitated Meta’s entry into the dedicated fitness space. PX527
6 (Meta) at 5 (“Beat Saber is already the #1 VR fitness app in terms of MAP [monthly active
7 people] so why not double down? We’ve never positioned Beat Saber directly as a fitness app
8 but if we partnered with Peloton we could.”).

9 284. Specifically, users already associate Meta’s Beat Saber app with fitness; a
10 dedicated fitness-oriented version of Beat Saber would be in line with users’ understanding of
11 the Beat Saber brand. PX527 (Meta) at 5; PX407 (Meta) at 1-2.

12 285. While Meta was developing paths to enter VR dedicated fitness with its own
13 product, it also was considering entering the space through acquisition of an existing VR
14 dedicated fitness app. *E.g.*, Rabkin (Meta) Hr’g Tr. at 826:16-827:12; PX118 (Meta) at 2.

15 286. One purported reason to investigate the acquisition route was because “We don’t
16 have the capabilities to build the Fitness experience in-house,” PX179 (Meta) at 2.

17 287. That same document, however, had as an action item that Mr. Stojavljevic
18 would present a “proposal” to Mr. Rabkin on expanding Beat Saber into deliberate fitness.
19 PX179 (Meta) at 2; Stojavljevic (Meta) Hr’g Tr. at 152:14-22; *see also* PX55 (Verdu (Meta)
20 Dep.) at 231:13-232:8 (recognizing this could be an “inconsistency” alongside the statement
21 that Meta lacked “the capabilities to build the fitness experience in house”).

22 288. Moreover, meeting attendees viewed Mr. Stojavljevic’s proposal as something
23 “completely separate” from building a fitness application entirely with in-house resources,
24 Stojavljevic (Meta) Hr’g Tr. at 155:3-17.

25 289. Further, Meta “could definitely build an application” for VR dedicated fitness on
26 its own, Rabkin (Meta) Hr’g Tr. at 815:5-9, because Meta already has engineers with the skill
27 set to both expand Beat Saber into fitness and to build a VR dedicated fitness app from scratch,
28

1 Carmack (Meta) Hr’g Tr. at 559:9-12 (agreeing that Meta could “stack out a killer development
 2 team” and noting that “inside of those 10,000 employees, there are certainly many talented
 3 people”) & 562:20-563:1 (“As a competent programmer, I could change the application for
 4 different design requirements. I do not have fitness specific skill sets, but I can change anything
 5 that was important in the program to serve whatever design goals were put before me.”); PX56
 6 (Carmack (Meta) Dep.) at 39:24-40:4 (“[REDACTED]
 7 [REDACTED]), 51:18-21 [REDACTED]
 8 [REDACTED]
 9 [REDACTED]); *see also id.* at 53:18-54:6 (Meta could have [REDACTED]
 10 [REDACTED]); *cf.* Koblin (Within) Hr’g Tr. at 653:25-654:9 (Q. “Why
 11 did you determine that Meta was the right company to sell to”? A. “. . . They’re leaders in the
 12 space. . . . I’m excited about the opportunity to get to work with some of the world’s top minds
 13 in immersive technology.”).

14 290. In any event, to whatever extent it is true that Meta lacked capabilities in March
 15 2021, that problem could have been solved by a hiring process that would “conservatively” take
 16 8-12 months or by acquiring a development studio like Armature, which Meta subsequently did.
 17 PX144 (Meta) at 1; Stojavljevic (Meta) Hr’g Tr. at 142:2-12.

18 291. As such, despite any concerns about in-house resource availability, Meta
 19 continued to consider Mr. Stojavljevic’s proposal to expand Beat Saber into fitness because it
 20 had a path to bring the talent it needed in house. Stojavljevic (Meta) Hr’g Tr. at 154:23-
 21 155:13.

22 292. In fact, Meta has either employed or tried to hire Within employees in the past,
 23 as there is overlap in the roles for which each company seeks to hire individuals. *Id.* at 203:21-
 24 204:5.

25 293. [REDACTED]
 26 [REDACTED]. Milk (Within) Hr’g Tr. at 711:15-19; PX767
 27 (Within) at 2 [REDACTED]; PX62 (Milk (Within)
 28

1 Dep.) at 109:129-13 [REDACTED]

2 294. These employees, hired by Meta to work on Meta VR products, [REDACTED]
 3 [REDACTED] Milk
 4 (Within) Hr’g Tr. at 712:13-16; 713:4-11; PX767 (Within) at 2 [REDACTED]
 5 [REDACTED]
 6 [REDACTED]

7 295. [REDACTED]
 8 [REDACTED]
 9 [REDACTED] Milk (Within) Hr’g Tr. at 711:22-714:4; PX767 (Within) at 2 [REDACTED]
 10 [REDACTED]); PX62 (Milk (Within)
 11 Dep.) at 106:24-107:6, 109:25-110:3 (noting, [REDACTED]).

12 296. Thus, although Meta had, by March 11, 2021, decided to [REDACTED]
 13 [REDACTED] it was still undertaking parallel
 14 efforts to “expand[] Beat Saber to deliberate fitness.” PX179 (Meta) at 2.

15 297. Those parallel efforts were a “big topic of discussion at that time,” and “there
 16 was a lot of buzz around that thinking at that time.” Rabkin (Meta) Hr’g Tr. at 851:5-19.

17 298. Mr. Stojavljevic continued to believe that “a fitness collaboration between Beat
 18 Saber and Peloton is the best way” to address “[REDACTED]
 19 [REDACTED]
 20 [REDACTED]” PX407 (Meta) at 1.

21 299. Accordingly, at the end of March 2021, Mr. Stojavljevic asked a contractor who
 22 worked with him to research his proposal. Stojavljevic (Meta) Hr’g Tr. at 163:25-164:11;
 23 PX121 (Meta).

24 300. At that same time, Mr. Stojavljevic was informing colleagues that a pitch would
 25 go to executives in April with a [REDACTED]. PX533
 26 (Meta) at 1.

27 301. Later, in June 2021, just as Meta was making an offer to purchase Within, Mr.
 28

1 Stojasavljevic told a colleague that he was “still tempted to take on the work” to make his Beat
2 Saber/Peloton proposal happen. PX341 (Meta) at 1-2; Stojasavljevic (Meta) Hr’g. Tr. at 169:5-
3 170:1.

4 302. Although Mr. Stojasavljevic may not have had the bandwidth at the time to take
5 on such a project personally, he had taken on projects in the past to prove that he could do so.
6 Stojasavljevic (Meta) Hr’g Tr. at 170:2-171:12 (“[W]hen you tell me I’m not going to do
7 something, I’m going to try to prove you wrong”); PX341 (Meta) at 2.

8 303. Additionally, [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED] PX52 (Stojasavljevic (Meta) Dep.) at 240:11-241:7.

12 304. Separate from Mr. Stojasavljevic’s proposal to work with Peloton, in May of
13 2021, Meta employees including Michael Verdu, Anand Dass, and others discussed a possible
14 partnership with [REDACTED] for Quest content. *See* PX57 (Dass
15 (Meta) Dep.) at 268:24-270:7, 270:15-271:9, 271:10-273:3.

16 305. And, in June 2021, [REDACTED]
17 [REDACTED]
18 [REDACTED] PX125 (Meta) at 2 [REDACTED]
19 [REDACTED] DX1003 (Meta) at 6 [REDACTED]
20 [REDACTED]”).

21 306. That working group also examined a [REDACTED] PX125 (Meta) at 3.

22 307. Specifically, members of the working group noted that “[REDACTED]
23 [REDACTED]
24 [REDACTED] *Id.*

25 308. The group examined possible acquisitions other than Supernatural as well. *Id.* at
26 4.

27 309. Internal development efforts were tabled when Meta decided to pursue an
28

1 acquisition of Within in June 2021. Stojasavljevic (Meta) Hr'g Tr. at 164:20-165:11; PX341
 2 (Meta) at 2.

3 310. When Meta ran into difficulties negotiating with Within in September of 2022,
 4 Meta communicated to Within that it was “intent in the space,” and senior content organization
 5 executives resumed the examination of alternatives, including developing a Beat Saber fitness
 6 variant. *See Infra* Findings of Fact ¶¶ 319–322.

7 311. Even after signing the deal, Meta has [REDACTED]
 8 [REDACTED]
 9 [REDACTED] PX438 (Meta) at 1; PX64
 10 (Rabkin (Meta) 30(b)(6) Dep.) at 33:20-36:4.

11 **N. Instead of Building its Own VR Dedicated Fitness App, Meta Decides to Buy**
 12 **the Market Leader**

13 312. Meta’s strategy for market entry shifted when the company learned in
 14 approximately June 2021 that Within, the market leader in dedicated fitness, was discussing a
 15 potential acquisition with Apple Inc. (“Apple”). *Infra* Findings of Fact ¶¶ 313–314.

16 313. As Mr. Verdu, deal sponsor for the Within acquisition, explained, “Mark has
 17 been pushing us to go into fitness first-party, and we were in the midst of a strategy exercise to
 18 decide between our alternatives when Supernatural became in play (supposedly pursued
 19 by Apple), which accelerated everything.” PX117 (Meta) at 1; *see also* PX55 (Verdu (Meta)
 20 Dep.) at 240:8-241:4; PX579 (Meta) at 1 (“we had a big analysis of the fitness app sector going
 21 on when this [Within acquisition] got sudden momentum because of another offer”).

22 314. Meta feared that Apple would one day begin distributing Supernatural
 23 exclusively through its own platform and withdraw the app from the Quest Store. PX55 (Verdu
 24 (Meta) Dep.) at 242:22-243:3 (“I was quite afraid that over time, Apple would take Supernatural
 25 off of our platform and put it on their own.”).

26 315. To date, Apple has never marketed any VR headset (versus Meta’s marketing of
 27 several different models over nearly a decade) and has zero headset sales (versus over 10
 28

1 million units sold to consumers by Meta). PX55 (Verdu (Meta) Dep.) at 243:12-18; Milk
 2 (Within) Hr’g Tr. at 762:3-4.

3 316. [REDACTED]

4 [REDACTED]
 5 [REDACTED] PX74 (Casanova (Apple) Dep.) at 113:17-114:11; 119:2-5.

6 317. [REDACTED] *Id.*
 7 at 114:12-116:2; 117:13-118:1.

8 318. In July 2021, [REDACTED]
 9 [REDACTED] PX62 (Milk (Within) Dep.) at 129:2-14; Singer (FTC Expert) Hr’g Tr. at
 10 327:13-22.

11 319. Two months later, on September 15, 2021, however, [REDACTED]
 12 [REDACTED]

13 [REDACTED] PX66 (Rubin (Meta) Dep.) at 128:4-12; PX123 (Meta) at 1.

14 320. In response, after seeking guidance from Mr. Zuckerberg, Meta employees
 15 communicated to Within that Meta was “intent in the space,” even if the Acquisition did not
 16 proceed. PX123 (Meta) at 1; PX66 (Rubin (Meta) Dep.) at 158:3-162:22; PX560 (Meta) at 2.

17 321. That included the option to build a fitness-focused app based on Beat Saber.
 18 PX123 (Meta) at 2; PX66 (Rubin (Meta) Dep.) at 162:18-22.

19 322. Meta’s threat worked: Within ultimately agreed to a purchase price of [REDACTED]
 20 [REDACTED] PX54 (Bosworth (Meta) Dep.) at 210:17-21.

21 323. The purchase price is more than [REDACTED] the amount of money Within has
 22 raised in its entire existence, during which time it developed Supernatural and build it into [REDACTED]
 23 [REDACTED] VR dedicated fitness app. PX2 (Meta) at 1; Bosworth (Meta) Hr’g Tr. at 1034:1-4;
 24 Singer (FTC Expert) Hr’g Tr. at 350:167-351:12, (“They are paying—I’m not going to disclose
 25 the amount—but an extreme multiple over their own internal valuations of what the company is
 26 worth”); in fact, the purchase price is [REDACTED]

27 [REDACTED] Within raised in its [REDACTED]
 28

1 [REDACTED] Milk (Within) Hr’g Tr. at 681:8-14.

2 324. Meta could have built its own VR dedicated fitness app for less than the [REDACTED]
3 [REDACTED] it proposes to spend to acquire Within. PX54 (Bosworth) (Meta) Dep.) at 210:17-21.

4 325. Meta preferred to buy rather than build a VR dedicated fitness app because “we
5 do not have any competitive advantage building fitness apps for us to think that we would have
6 a success rate higher than the market success rate trying to build a new experience for the VR.”
7 Rabkin (Meta) Hr’g Tr. at 858:19-859:11.

8 326. Meta would choose to buy another company rather than to build its own offering
9 unless its own plan to build is among “the best, best, best ideas.” *Id.* at 832:14-833:22.

10 327. Buying Within, however, was not the only way Meta could have developed the
11 production capabilities and expertise needed to create a premium VR fitness experience.
12 Bosworth (Meta) Hr’g Tr. at 1037:6-10.

13 328. Of the 99 employees at Within at the time Meta and Within inked their deal, just
14 22 were involved in “content,” which included producers and editors in addition to coaches and
15 choreographers; the remainder were split between engineers, the product team, the design team,
16 admin, marketing, and operations—*i.e.*, talent Meta already has. PX2 (Meta) at 1.

17 329. Moreover, employees at Meta viewed Supernatural as “derivative” of Meta’s
18 own Beat Saber product and viewed Within as a “low quality developer[]” when compared to
19 the existing talent already at Meta. PX561 (Meta) at 1; Stojasavljevic (Meta) Hr’g Tr. at 137:8-
20 17; 161:21-162:7; *cf.* Rabkin (Meta) Hr’g Tr. at 812:17-813: (explaining numerous reasons that
21 Meta wants to acquire Supernatural, none of which relate to innovativeness).

22 330. [REDACTED]
23 [REDACTED]
24 Zuckerberg (Meta) Hr’g Tr. 1283:18-1284:21; after all, [REDACTED]
25 [REDACTED] PX384 (Meta)
26 at 1; PX576at 1-2; PX55 (Verdu (Meta) Dep.) at 253:24-254:12.

27 331. Additionally, Meta has identified no synergies associated with the Acquisition:
28

1 “I don’t think we’ve identified any real synergies here. This is not – this wasn’t a synergistic
 2 acquisition in that way. . . . I don’t know of any cost savings that have been identified”
 3 PX54 (Bosworth (Meta) Dep.) at 161:1-13; *accord* Bosworth (Meta) Hr’g Tr. at 1049:19-21,
 4 1053:6-22; DX1212 (Rubin 30(b)(6) (Meta) Dep.) at 18:25-19:22, 23:1-11.

5 332. In fact, some Meta content employees have expressed concerns about
 6 successfully integrating Within into Meta’s first-party studio organization because Messrs. Milk
 7 and Koblin’s background in media content could create compatibility issues, Stojavljevic
 8 (Meta) Hr’g Tr. at 113:5-11, and because Meta imposes a “FB Tax” on some of the companies
 9 it acquires. PX293 (Meta) at 1; *see also* PX413 (Meta) at 2 ([REDACTED]
 10 [REDACTED]
 11 [REDACTED]).

12 333. According to Mr. Zuckerberg: “Big companies I think kind of move slower and
 13 small companies can be more nimble.” Zuckerberg (Meta) Hr’g Tr. at 1341:23-24.

14 334. And Mr. Rabkin has observed: “We’re a really big company, and big companies
 15 are notoriously poor at running investments like a startup. It’s just a different approach,
 16 different culture.” Rabkin (Meta) Hr’g Tr. at 860:6-8.

17 335. As noted above, Supernatural is presently exclusive to Quest. Dkt. No. 83
 18 (Defendant Within Unlimited, Inc.’s Answer and Affirmative Defenses) ¶ 25; Bosworth (Meta)
 19 Hr’g Tr. at 1030:21-23.

20 336. Meta has not “made any decision at all” as to whether it will make Supernatural
 21 available on other VR headsets (otherwise known as “porting”). Bosworth (Meta) Hr’g Tr. at
 22 1030:24-1031:4 (“Q. Has Meta decided to port Supernatural to any other platform after the
 23 acquisition? A. I don’t think we’ve made any decision at all. Q. Have you made any
 24 commitments to port Supernatural to any other platform? A. Not that I know of.”); *see also*
 25 PX66 (Rubin (Meta) Dep.) at 141:21-24 [REDACTED]
 26 [REDACTED]
 27 [REDACTED]).
 28

337. Meta does tend to leave acquired content on other devices when that content has already been available on those devices to avoid upsetting customers or harming its brand, but porting content to new devices takes additional time and programming effort; in some cases, it is impossible or requires significant changes. Stojasavljevic (Meta) Hr’g Tr. at 103:24-104:25.

338. Among other things, Meta management assesses the development time and opportunity cost of porting applications to other VR headsets. PX 52 (Stojasavljevic (Meta) Dep.) at 38:20-39:20.

O. VR Dedicated Fitness Is Characterized by High Barriers to Entry

339. According to Mr. Milk, Within’s CEO, “[REDACTED]” Milk (Within) Hr’g Tr. at 719:4-720:8.

340. As Mr. Milk explained to an investor, Supernatural is [REDACTED]

[REDACTED]. *Id.* at 717:19-718:5.

341. He added [REDACTED] *Id.* at 718:9-21.

342. Indeed, building a successful VR dedicated fitness app requires [REDACTED] PX667 (Within) at 60; PX5 (Within) at 18 [REDACTED] [REDACTED]”); PX712 (Within) at 48 [REDACTED]; PX111 (Meta) at 1 [REDACTED] [REDACTED]; Milk (Within) Hr’g Tr. at 717:19-720:8.

343. Building a high-quality entrant also requires “talent needed to create true triple-A VR experiences,” talent that Meta acknowledges is increasingly “scarce.” PX118 (Meta) at 1; *see also* PX527 (Meta) at 3 (“There is an ongoing arms race amongst platform owners . . .

Now is the time to build a moat”); PX52 (Stojsavljevic (Meta) Dep.) at 115:24-116:5
 ([REDACTED]) & 119:9-
 120:4 ([REDACTED]).

344. Moreover, as a general matter, developing applications for virtual reality requires a unique skill set: failure to understand things like object interaction can break immersion, and it thus takes time for developers to learn how to make users feel immersed in VR. Stojsavljevic (Meta) Hr’g Tr. at 113:19-115:3.

345. It can take new developers months to learn core VR building blocks such as hands and grabbing objects. *Id.* at 115:9-19.

346. One of the reasons that Meta has acquired first party studios is because of concerns that, without the acquisitions, it would not have access to the top-level VR talent at those studios. *Id.* at 114:23-115:13.

347. VR talent is scarce enough that [REDACTED]
 [REDACTED]
 [REDACTED] Milk (Within) Hr’g Tr. at 713:22-25 [REDACTED]
 [REDACTED]
 [REDACTED]);
 see also PX767 (Within) at 2; PX305 (Meta) at 2-3 ([REDACTED])
 [REDACTED]
 [REDACTED]
 [REDACTED]).

348. In addition to scarce talent, inclusion on the Quest Store itself is a significant barrier to entry over which Meta exercises total control. *Infra* Findings of Fact ¶¶ 349–377.

349. Developing a high-quality VR fitness app is a substantial undertaking in both time and money, and may not be worthwhile if a company is shut out of the Quest platform; as a result, Odders Lab pitched its fitness concept to Meta before even *starting* development, Garcia (Odders Lab) Hr’g Tr. at 1073:5-13, and VirZoom stopped working with all other platforms, in

part, because of its expectation that Meta would become the dominant platform, which proved to be an accurate prediction. Janszen (VirZoom) Hr’g Tr. at 1124:1-2, 1151:22-1152:8, 1166:8-25.

350. In addition to seeking store approval, the Odders Lab team also sought and received funding from Meta in order to build out their fitness app. Garcia (Odders Lab) Hr’g Tr. at 1073:22-1074:1.

351. In total, Odders Lab has received [REDACTED]
[REDACTED]
[REDACTED] *Id.* at 1103:25-1104:24.

352. And taking this funding [REDACTED]
[REDACTED] *Id.* at 1104:25-1105:15.

353. Likewise, VirZoom, which is [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Janszen (VirZoom) Hr’g Tr. at 1163:8-15, 1164:5-1165:13.

354. The Quest Store provides huge discoverability benefits to apps that are published to it. Pruett (Meta) Hr’g Tr. at 223:5-8; PX53 (Pruett (Meta) Dep.) at 124:11-125:19.

355. Prior to appearing on the Quest Store, apps must meet certain technical requirements, [REDACTED].
Pruett (Meta) Hr’g Tr. at 222:23-223:8; PX53 (Pruett (Meta) Dep.) at 31:4-17.

356. That is because Meta [REDACTED]
[REDACTED]
[REDACTED]. Pruett (Meta) Hr’g Tr. at 223:10-12; 233:25-234:13; PX276 (Meta) at 1; *see also* PX53 (Pruett (Meta) Dep.) at 51:5-20 ([REDACTED]
[REDACTED]
[REDACTED]) & 59:11-60:23.

357. Through “uniqueness,” Meta is trying to evaluate whether apps are sufficiently

1 differentiated from apps already in the Quest Store. Pruett (Meta) Hr’g Tr. at 236:17-237:6 ([REDACTED]
 2 [REDACTED]
 3 [REDACTED]).

4 358. [REDACTED]. Pruett (Meta) Hr’g Tr.)
 5 at 238:21-239:16; PX246 (Meta) at 1 [REDACTED]
 6 [REDACTED]
 7 [REDACTED]).

8 359. When it comes to Meta’s curation of the Quest Store, [REDACTED]
 9 [REDACTED] Pruett (Meta) Hr’g Tr. at 232:20-
 10 233:11 ([REDACTED]
 11 [REDACTED]
 12 [REDACTED]), 258:8-14 (the ability to make
 13 “subjective or strategic decisions about content curation . . . is the core of [Meta’s] content
 14 strategy”); Carmack (Meta) Hr’g Tr. at 573:7-9 (agreeing that there is “not a clearcut objective
 15 set of rules for a third party app to get onto the Quest Store”); PX56 (Carmack (Meta) Dep.) at
 16 19:17-20:8 ([REDACTED]
 17 [REDACTED]
 18 [REDACTED]); PX465 (Meta) at 3 (“we must not throw away the ability to make
 19 subjective or strategic decisions about content curation. That is the core of our content
 20 strategy.”).

21 360. Not only is Meta’s Quest Store review criteria subjective, it is ever-changing, as
 22 Meta is tuning and tweaking the quality bar for reviewing third party applications all of the
 23 time. Pruett (Meta) Hr’g Tr. at 246:13-19; *see also id.* at 248:19-249:7 (agreeing that “Meta’s
 24 decision in reviewing the same app could be different depending on when that application is
 25 being reviewed”).

26 361. Even in instances where Meta permits an app to list on the Quest Store, the
 27 process is uncertain and cumbersome because “most applications require more than one
 28

1 submission.” Carmack (Meta) Hr’g Tr. at 573:22-24; Pruett (Meta) Hr’g Tr. at 249:1-3 (“It’s
2 fairly common for developers who didn’t make it through the first time to come back and apply
3 again and make it through their second time.”).

4 362. [REDACTED]
5 [REDACTED]. Pruett (Meta) Hr’g Tr. at
6 220:11-13.

7 363. Meta has a policy of not providing feedback to applications that are rejected
8 from the Quest Store. *Id.* at 281:18-21 (Meta will “generally not” provide detailed feedback to
9 developers explaining the basis for the decision to reject their app from the Quest Store);
10 Carmack (Meta) Hr’g Tr. at 574:5-16 (“There’s no official format for feedback” to third party
11 developers about getting onto the Quest Store, and it has “been relayed” not to give
12 unsuccessful developers specific feedback).

13 364. [REDACTED]
14 [REDACTED] PX145 (Meta) at 1; *see also* Carmack (Meta) Hr’g Tr. at 571:9-12; PX56 (Carmack
15 (Meta) Dep. at 17:24-18:1 [REDACTED]
16 [REDACTED]).

17 365. [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED] Pruett (Meta) Hr’g
21 Tr. at 231:4-8.

22 366. [REDACTED] *Id.* at
23 229:1-4 ([REDACTED]
24 [REDACTED]); *see also id.* at 230:1-2 [REDACTED]
25 [REDACTED]).

26 367. Meta’s first-party developers also have access to headset systems and software
27 that third party developers do not. Carmack (Meta) Hr’g Tr. at 554:19-556:15).

1 368. Meta also controls which apps are placed in “featured slots” on the Quest Store.
2 *Id.* at 571:16-17.

3 369. Placement in featured slots improves an app’s uptake and growth. Carmack
4 (Meta) Hr’g Tr. at 571:18-25 (“It’s like getting an end cap at a physical store”); PX56 (Carmack
5 (Meta) Dep.) at 24:21-25:1 [REDACTED]

6 [REDACTED]

7 [REDACTED]).

8 370. Meta does not ever feature App Lab apps in its Quest Store. Pruett (Meta) Hr’g
9 Tr. at 289:22-290:2.

10 371. Apps that do not make it into the Quest Store are much less likely to be
11 financially successful. *Id.* at 290:21-291:14 (agreeing that as a whole Quest Store apps make
12 more money than App Lab apps).

13 372. Users cannot browse for content on App Lab; they must explicitly search for the
14 names of specific apps. Carmack (Meta) Hr’g Tr. at 570:24-571:8; Pruett (Meta) Hr’g Tr. at
15 289:3-10.

16 373. In the aggregate, App Lab apps are lower quality than apps distributed through
17 the Quest Store; they are also more difficult for users to discover. Pruett (Meta) Hr’g Tr. at
18 288:6-11, 18-24.

19 374. Before downloading an App Lab app, users must click through a warning
20 message stating that Meta has not reviewed it. *Id.* at 289:11-18.

21 375. [REDACTED] DX1100 at
22 66; Milk (Within) Hr’g Tr. at 721:3-12.

23 376. According to Mr. Milk, because Supernatural is available only on Meta’s Quest
24 platform, [REDACTED] Milk (Within)
25 Hr’g Tr. at 723:8-17.

26 377. When negotiating this deal, [REDACTED]
27 [REDACTED]

1 [REDACTED] PX62 (Milk (Within) Dep.)
 2 at 146:15-147:6) [REDACTED]

3 [REDACTED]
 4 [REDACTED]); *see also* PX731 (Within) at 1 [REDACTED]

5 378. “[N]etwork effects are when you get some kind of either like efficiency benefit
 6 or a growth benefit or something as more people join and invite others.” PX63 (Rabkin (Meta)
 7 Dep.) at 157:5-8.

8 379. Meta is actively aiming to achieve network effects in VR; according to Mr.
 9 Rabkin, network effects are “one of the things that we’re really trying to pursue right now and
 10 make happen. It would be really nice if more people joining made it more appealing for others
 11 to join.” Rabkin (Meta) Hr’g Tr. at 844:23-845:3.

12 380. VR dedicated fitness apps generally experience network effects—that is, the
 13 notion that once an app “build[s] up a big community of customers . . . who are working out
 14 together, it creates value for those who are already in,” and that “more people who join make
 15 the network more valuable than it was.” Singer (FTC Expert) Hr’g Tr. at 397:12-17).

16 381. In particular, Supernatural’s social features such as leaderboards, the ability to
 17 follow friends’ workouts through the mobile app, and its active Facebook community provide
 18 value to existing and new users that cannot be replicated without a large, existing network of
 19 users. PX15 (Singer Rep.) at ¶ 91; PX51 (Cibula (Within 30(b)(6)) Dep.) at 89:14-90:4

20 ([REDACTED]).

21 382. Meta itself has recognized that VR fitness apps [REDACTED]
 22 PX135 (Meta) at 3 [REDACTED]
 23 [REDACTED]); PX57 (Dass (Meta) Dep.) at 64:8-18; PX136 (Meta) at 11

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]).

27 383. In fact, Meta determined that the social aspect of Supernatural was a prime
 28

reason to acquire it. Rabkin (Meta) Hr’g Tr. at 813:16-21 (Within “built not just a fitness product, VR, which is an insane challenge, but a community of people and was able to grow and manage it. We’re like, ah, this fits in so well with what we want to do in the Meta[verse] group, and we want that community and we want those groups of people and we want people doing stuff.”).

384. Enhancing the social aspects of VR fitness “is one of [Meta’s] ideas for fitness. . . [E]nhancing the social aspect of things is a very common strategy we attempt with a lot of use cases because that is a thing, you know, that we think we’re good at.” *Id.* at 839:17-24.

385. “[I]n terms of social, I think Meta are experts.” *Id.* at 842:17.

386. One of Meta’s “sweet spots” is “scaling an existing experience, growing it, making it more social, making it more metaverse.” *Id.* at 860:14-16.

PLAINTIFF FEDERAL TRADE COMMISSION’S

PROPOSED CONCLUSIONS OF LAW

1. Section 7 of the Clayton Act prohibits mergers when “the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.” 15 U.S.C. § 18.

2. Section 7 analysis “necessarily focuses on ‘probabilities, not certainties.’” *St. Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke’s Health Sys. Ltd*, 778 F.3d 775, 783 (9th Cir. 2015) (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 323 (1962)).

3. This entails “‘a prediction of [the merger’s] impact upon competitive conditions in the future; this is what is meant when it is said that the amended § 7 was intended to arrest anticompetitive tendencies in their incipency.’” *Id.* (quoting *United States v. Phila. Nat’l Bank*, 374 U.S. 321, 362 (1963)).

4. Section 13(b) of the Federal Trade Commission Act, 15 U.S.C. § 53(b), authorizes the Federal Trade Commission, whenever it has reason to believe that a proposed merger is unlawful, to seek preliminary injunctive relief to prevent consummation of a merger until the Commission has the opportunity to adjudicate the merger’s legality in an

1 administrative proceeding.

2 5. Specifically, Section 13(b) “allows a district court to grant the Commission a
3 preliminary injunction ‘[u]pon a proper showing that, weighing the equities and considering the
4 Commission’s likelihood of ultimate success, such action would be in the public interest.’” *FTC*
5 *v. Affordable Media, LLC*, 179 F.3d 1228, 1233 (9th Cir. 1999) (quoting 15 U.S.C. § 53(b)).

6 6. The statute “places a lighter burden on the Commission than that imposed on
7 private litigants by the traditional equity standard.” *FTC v. Warner Commc’ns Inc.*, 742 F.2d
8 1156, 1159 (9th Cir. 1984). *FTC v. Lancaster Colony Corp.*, 434 F. Supp. 1088, 1096 (S.D.N.Y.
9 1977) (“The equities to be weighed here are not the usual equities of private litigation but public
10 equities.”).

11 7. “Under this more lenient standard, ‘a court must 1) determine the likelihood that
12 the Commission will ultimately succeed on the merits and 2) balance the equities.’” *Affordable*
13 *Media*, 179 F.3d at 1233 (quoting *Warner Commc’ns*, 742 F.2d at 1160); accord *FTC v. World*
14 *Wide Factors, Ltd.*, 882 F.2d 344, 347 (9th Cir. 1989) (“Because irreparable injury must be
15 presumed in a statutory enforcement action, the district court need only to find some chance of
16 probable success on the merits.”).

17 8. In weighing the equities under § 13(b), “public equities receive far greater
18 weight.” *Warner Commc’ns*, 742 F.2d at 1165.

19 9. Public equities include effective enforcement of the antitrust laws and ensuring
20 the Commission’s ability to obtain adequate relief if it ultimately prevails on the merits. *Id.*

21 10. Preliminary injunctions under § 13(b) “are meant to be readily available to
22 preserve the status quo while the FTC develops its ultimate case.” *FTC v. Whole Foods Mkt.,*
23 *Inc.*, 548 F.3d 1028, 1036 (D.C. Cir. 2008); accord *FTC v. Food Town Stores, Inc.*, 539 F.2d
24 1339, 1342 (4th Cir. 1976) (“The only purpose of a proceeding under § 13 is to preserve the
25 status quo until FTC can perform its function.”).

26 11. The Federal Trade Commission has shown that it is likely to succeed on the
27 merits of its Section 7 challenge in the agency’s administrative court, and the equities favor
28

1 issuing a preliminary injunction.

2 **A. The Federal Trade Commission Is Likely to Succeed on the Merits of Its**
 3 **Section 7 Challenge**

4 12. In evaluating the Federal Trade Commission’s likelihood of success on the
 5 merits, courts consider the Federal Trade Commission’s ability to prove that the effect of the
 6 Acquisition “*may be* substantially to lessen competition, or to tend to create a monopoly” in
 7 violation of Section 7 of the Clayton Act. *Warner Commc’ns*, 742 F.2d at 1160 (emphasis in
 8 original) (“It is well established that a section 7 violation is proven upon a showing of
 9 reasonable probability of anticompetitive effect”); *accord United States v. Marine Bancorp.*,
 10 418 U.S. 602, 622 (1974) (“[T]he proscription expressed in § 7 against mergers ‘when a
 11 “tendency” toward monopoly or [a] “reasonable likelihood” of a substantial lessening of
 12 competition in the relevant market is shown,’ applies alike to actual and potential-competition
 13 cases.” (quoting *United States v. Penn-Olin Chem. Co.*, 378 U.S. 158, 171 (1964))).

14 13. The Ninth Circuit has explained that the “Commission meets its burden if it
 15 ‘raise[s] questions going to the merits so serious, substantial, difficult and doubtful as to make
 16 them fair ground for thorough investigation, study, deliberation and determination by the FTC
 17 in the first instance and ultimately by the Court of Appeals.’” *Warner Commc’ns*, 742 F.2d at
 18 1162 (alteration in original) (quoting *FTC v. Nat’l Tea Co.*, 603 F.2d 694, 698 (8th Cir. 1979));
 19 *see also Whole Foods Mkt.*, 548 F.3d at 1036 (“[A]t this preliminary phase [the FTC] just has to
 20 raise substantial doubts about a transaction. One may have such doubts without knowing exactly
 21 what arguments will eventually prevail.”).

22 14. Because the issue is a “narrow one,” the court “do[es] not resolve the conflicts in
 23 the evidence, compare concentration ratios and effects on competition in other cases, or
 24 undertake an extensive analysis of the antitrust issues.” *Warner Commc’ns*, 742 F.2d at 1164;
 25 *see also California v. Am. Stores Co.*, 872 F.2d 837, 841 (9th Cir. 1989) (“At this stage, we do
 26 not resolve conflicts in the evidence.”), *rev’d on other grounds, California v. Am. Stores Co.*,
 27 495 U.S. 271 (1990); *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 714 (D.C. Cir. 2001) (the Federal
 28

Trade Commission “is not required to *establish* that the proposed merger would in fact violate Section 7” (emphasis in original)); *FTC v. CCC Holdings Inc.*, 605 F. Supp. 2d 26, 67 (D.D.C. 2009) (“the district court’s task is not ‘to determine whether the antitrust laws have been or are about to be violated. That adjudicatory function is vested in the FTC in the first instance’” (quoting *Whole Foods Mkt.*, 548 F.3d at 1042 (Tatel, J., concurring))).

15. Rather, this Court’s task is only to “measure the probability that, after an administrative hearing . . . the Commission will succeed in proving that the effect of the [proposed] merger ‘may be substantially to lessen competition, or to tend to create a monopoly’ in violation of section 7.” *H.J. Heinz*, 246 F.3d at 714 (quoting 15 U.S.C. § 18).

16. The Supreme Court has recognized that Section 7 of the Clayton Act prohibits the elimination of potential competition as well as present competition. *E.g.*, *Marine Bancorp.*, 418 U.S. at 623-25; *United States v. Falstaff Brewing Corp.*, 410 U.S. 526, 531-32 (1973); *see also Dehoog v. Anhesuer-Busch InBev SA/NV*, 899 F.3d 758, 764 (9th Cir. 2018) (citing approvingly to *Falstaff*, 410 U.S. 526 (1973); *United States v. Penn-Olin Chem. Co.*, 378 U.S. 158 (1964); and *United States v. El Paso Nat. Gas Co.*, 376 U.S. 651 (1964)).

17. Courts have recognized two distinct types of anticompetitive harm that can occur from mergers that eliminate potential competition in a concentrated relevant market.

18. First, a merger can lessen “actual potential competition,” when it eliminates a firm that is reasonably probable to enter the relevant market through alternative means absent the illegal acquisition. *See United States v. Phillips Petrol. Co.*, 367 F. Supp. 1226, 1232 (C.D. Cal. 1973) (describing the harm to competition that may arise from the loss of an “entry effect”), *aff’d*, *Phillips Petrol. Co. v. United States*, 418 U.S. 906 (1974); *see also Yamaha Motor Co. Ltd. v. FTC*, 657 F.2d 971, 977-79 (8th Cir. 1981).

19. Second, a merger can lessen “perceived potential competition” when it eliminates “a potential competitor on the fringe of the market with likely influence on existing competition.” *Falstaff Brewing*, 410 U.S. at 533-34; *accord Marine Bancorp.*, 418 U.S. at 624-25 (“the Court has interpreted § 7 as encompassing what is commonly known as the ‘wings

1 effect’—the *probability* that the acquiring firm prompted premerger procompetitive effects
2 within the target market by being perceived by the existing firms in that market as likely to
3 enter de novo.” (citing *Falstaff*, 410 U.S. at 531-37) (emphasis added)).

4 20. Where, as here, an acquisition eliminates both a perceived potential competitor
5 and an actual potential competitor, the “combination renders the anticompetitive consequences
6 of the acquisition even greater.” *Phillips Petrol.*, 367 F. Supp. at 1234.

7 21. The Acquisition is likely to result in anticompetitive harm by lessening
8 competition in the VR Dedicated Fitness App market, where Within’s Supernatural is the
9 leading firm in a highly concentrated market. *Infra* Conclusions of Law ¶¶ 70–94.

10 22. The proposed Acquisition will preclude Meta’s reasonably probable entry
11 through alternative means, thereby denying consumers the benefit of adding another effective
12 competitor to the market. *Infra* Conclusions of Law ¶¶ 96–132; *see Yamaha Motor*, 657 F.2d at
13 977-79; *Phillips Petrol. Co.*, 367 F. Supp. at 1232.

14 23. The proposed Acquisition will also eliminate the current procompetitive
15 influence on existing competition that Meta’s threat of potential entry provides from the edge of
16 the market. *Infra* Conclusions of Law ¶¶ 133–151; *Marine Bancorp.*, 418 U.S. at 624-25;
17 *Falstaff Brewing*, 410 U.S. at 533-34; *Phillips Petrol.*, 367 F. Supp. at 1232-34.

18 24. Few firms are comparably situated to Meta with respect to entry into the VR
19 Dedicated Fitness App market, and new entry or expansion is unlikely to be sufficient to offset
20 the competitive harm of the proposed Acquisition. *Infra* Conclusions of Law at ¶¶ 152–157; *see*
21 *also, e.g., United States v. Bazaarvoice, Inc.*, No. 13-cv-00133, 2014 WL 203966, at *71 (N.D.
22 Cal. Jan. 8, 2014) (noting that it is the defendants’ burden at trial to show that alternative entry
23 will be timely, likely, and sufficient in magnitude and character to deter or counteract the
24 competitive effects of concern).

1. The Relevant Market Is the Sale of VR Dedicated Fitness Apps in the United States

25. “Determination of the relevant product and geographic markets is a necessary predicate to deciding whether a merger contravenes the Clayton Act.” *St. Alphonsus*, 778 F.3d at 783.

26. This is true whether the merger is alleged to have anticompetitive effects on existing competition or on potential competition. *Marine Bancorp.*, 418 U.S. at 618.

27. “[A] relevant market is the group of sellers or producers who have the actual or potential ability to deprive each other of significant levels of business.” *St. Alphonsus*, 778 F.3d at 784 (9th Cir. 2015) (internal quotation marks omitted).

28. “Relevant markets need not have precise metes and bounds.” *Pac. Steel Grp. v. Comm. Metals Co.*, No. 20-CV-07683, 2022 WL 1225030, at *7 (N.D. Cal. Apr. 26, 2022); accord *United States v. Bertelsmann SE & CO. KGaA*, 2022 WL 16949715, at *18 (D.D.C. Nov. 15, 2022) (“Market definition is more art than science, and it is critical to remember that the goal of the exercise is to enable and facilitate the examination of competitive effects.”) (citation omitted).

29. Even where broad markets exist that contain all “sellers [that] must, at some level, compete with one another . . . the mere fact that a firm may be termed a competitor in the overall market place does not necessarily require that it be included in the relevant market for antitrust purposes.” *FTC v. Staples, Inc.* 970 F. Supp. 1066, 1074 (D.D.C. 1997); accord *FTC v. Peabody Energy Corp.*, 492 F. Supp. 3d 865, 886 (E.D. Mo. 2020) (“It is indisputable on the record in this case that coal competes with natural gas and renewables in a broader energy market. Still, the FTC has presented more than sufficient evidence that there is *also* a distinct competitive market among SPRB coal producers that satisfies the applicable criteria for market definition.” (emphasis in original)); cf. *L.A. Mem. Coliseum Comm’n v. Nat’l Football League*, 726 F.2d 1381, 1393 (9th Cir. 1984).

30. “Customers often confront a range of possible substitutes Market shares of

1 different products in narrowly defined markets are more likely to capture the relative
2 competitive significance of these products, and often more accurately reflect competition
3 between close substitutes.” *See* U.S. Dep’t of Justice & Federal Trade Commission Horizontal
4 Merger Guidelines (“Guidelines”) (2010) § 4.

5 31. As such, “[w]ell-defined submarkets may exist which, in themselves, constitute
6 product markets for antitrust purposes.” *Staples, Inc.*, 970 F. Supp. at 1074 (quoting *Brown*
7 *Shoe Co. v. United States*, 370 U.S. 294, 325 (1962)).

8 32. The Court must examine “each economically significant submarket [*i.e.*, relevant
9 antitrust market] to determine if there is a reasonable probability that the merger will
10 substantially lessen competition. If such probability is found to exist, the merger is proscribed.”
11 *Staples*, 970 F. Supp. at 1075 (quoting *Brown Shoe*, 370 U.S. at 294).

12 33. In defining relevant product markets (a term of art in antitrust law), courts often
13 evaluate “such practical indicia as industry or public recognition of the [relevant market] as a
14 separate economic entity, the product’s peculiar characteristics and uses, unique production
15 facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized
16 vendors.” *Brown Shoe*, 370 U.S. at 325.

17 34. Courts in this District have repeatedly acknowledged that a relevant antitrust
18 market can be defined by reference to *Brown Shoe*’s practical indicia. *E.g.*, *Klein v. Facebook,*
19 *Inc.*, 580 F. Supp. 3d 743, 764-67 (N.D. Cal. 2022) (“A plaintiff may allege a distinct submarket
20 for a product by alleging ‘practical indicia’ of the submarket. . . . [A] plaintiff may support its
21 product market definition by pleading facts which show ‘industry or public recognition of the
22 [market] as a separate economic entity, the product’s peculiar characteristics and uses, unique
23 production facilities, distinct customers, distinct prices, sensitivity to price changes, and
24 specialized vendors.’” (quoting *Brown Shoe*, 370 U.S. at 325)); *Dang v. San Francisco Forty*
25 *Niners*, 964 F. Supp. 2d 1097, 1107 (N.D. Cal. 2013).

26 35. These practical indicia were meant as “practical aids in identifying zones of actual
27 or potential competition rather than with the view that their presence or absence would dispose,
28

1 in talismanic fashion, of the submarket issue.” *Int’l Tel. & Telegraph Corp. v. Gen. Tel. &*
 2 *Elec. Corp.*, 518 F.2d 913, 932 (9th Cir. 1975); *see also Staples*, 970 F. Supp. at 1075 (“Since
 3 the Court described these factors as ‘practical indicia’ rather than requirements, subsequent
 4 cases have found that submarkets can exist even if only some of these factors are present.”).

5 36. Both the *Brown Shoe* practical indicia and the Hypothetical Monopolist Test
 6 (“HMT”) demonstrate that VR dedicated fitness apps, like Within’s Supernatural app, are an
 7 appropriate relevant product market in which to evaluate the Acquisition.

8 37. VR dedicated fitness apps are designed so users can exercise through a structured
 9 physical workout in a virtual setting anywhere they choose to use their highly portable VR
 10 headset. *Supra* Findings of Fact ¶¶ 123–152.

11 38. Typical characteristics of VR dedicated fitness apps include workouts designed
 12 by trainers or fitness experts, gameplay designed to maximize exertion and physical movement
 13 for the purpose of exercise, calorie tracking, and classes or other active coaching. *Supra*
 14 Findings of Fact ¶¶ 126–133.

15 39. In this way, VR dedicated fitness apps feature “peculiar characteristics and uses”
 16 that distinguish them from other VR apps. *See Brown Shoe*, 370 U.S. at 325.

17 40. They are also distinct from other VR apps in other ways consistent with the
 18 *Brown Shoe* factors: They typically offer distinct prices as compared to other VR apps —
 19 specifically, a subscription-based pricing model as compared to a one-time fee, and their
 20 distinct customer base is differentiated from other apps in terms of both age (older) and gender
 21 (more female). *Supra* Findings of Fact ¶¶ 134–135.

22 41. Thus, it is not surprising that *Meta and Within themselves* recognize a separate
 23 and distinct category of VR dedicated fitness apps. *Supra* Findings of Fact ¶ 123.

24 42. Meta’s own analyses show that when users leave one of the two largest VR
 25 dedicated fitness apps, the other tends to gain users; in other words, Meta’s own real-world data
 26 analysis shows that users leaving one VR dedicated fitness app largely gravitate towards a
 27 different VR dedicated fitness app. *See supra* Findings of Fact ¶ 164.

43. Moreover, functional, technological, and price differences consistent with the *Brown Shoe* practical indicia show that non-VR at-home smart fitness solutions and at-home exercise products are distinct from VR dedicated fitness apps.

44. Unlike other at-home smart fitness solutions and exercise products, VR dedicated fitness apps enable users to exercise in fully immersive, 360-degree environments; they are also fully portable and take up little space. *Supra* Findings of Fact ¶¶ 138–145.

45. They are also far less expensive; a Peloton bicycle costs over \$1,000, with an additional \$44 per month subscription cost, compared to \$399 for Meta’s Quest 2 plus \$18.99 per month for Supernatural. PX15 (Singer Rep.) ¶ 68; *supra* Findings of Fact ¶ 147.

46. Meta’s and Within’s own documents show that VR dedicated fitness apps primarily target a different type of consumer—specifically, VR enthusiasts with less fitness experience—than traditional gym-goers or users of other at-home smart fitness products. *Supra* Findings of Fact ¶¶ 149–150.

47. Lastly, the VR Dedicated Fitness App market satisfies the hypothetical monopolist test (“HMT”), further confirming it is an appropriate relevant product market in which to evaluate the effects of the Acquisition. PX15 (Singer Rep.) ¶¶ 29-35, 49-69.

48. This test asks whether a hypothetical monopolist could profitably impose at least a small but significant and nontransitory increase in price (“SSNIP”) on a collection of products, including at least one product sold by one of the merging firms. *See* Guidelines § 4.1.2.

49. The Federal Trade Commission’s expert Dr. Hal Singer performed a quantitative analysis—specifically, a critical loss implementation of the HMT—to independently corroborate Dr. Singer’s own qualitative market analysis, PX15 § I.A; Singer (FTC Expert) Hr’g Tr. at 356:8-357:4, and to test whether a particular set of candidate products could be used to analyze the VR Dedicated Fitness App market. Singer (FTC Expert) Hr’g Tr. at 359:20-360:19.

50. The list of candidate VR dedicated fitness products Dr. Singer tested in his HMT

1 came from a white paper submitted by Meta during the Federal Trade Commission's
2 investigation of the merger. PX15 (Singer Rep.) at ¶ 46, n.85 (citing PX1, Appendix A); Singer
3 (FTC Expert) Hr'g Tr. at 361:5-12.

4 51. Because prices for the candidate VR dedicated fitness apps identified by Meta to
5 the Federal Trade Commission have almost never changed, Dr. Singer conducted a consumer
6 survey to estimate the price sensitivities necessary to carry out an HMT. Singer (FTC Expert)
7 Hr'g Tr. at 365:2-20.

8 52. His survey showed that over 95% of Supernatural users would keep their
9 Supernatural subscriptions in response to a SSNIP on Supernatural or a set of VR dedicated
10 fitness apps identified by Meta and Within to the Federal Trade Commission as VR apps that
11 compete with Supernatural. PX15 (Singer Rep.) at ¶¶ 63-64, Table 1.

12 53. These results, combined with the margins for VR dedicated fitness products,
13 indicate that a hypothetical monopolist could profitably impose a SSNIP on VR dedicated
14 fitness apps, and therefore that VR dedicated fitness apps constitute an appropriate and relevant
15 antitrust market. *Id.* at ¶¶ 49-69.

16 54. The analysis of the *Brown Shoe* practical indicia and the results of Dr. Singer's
17 HMT are each independent and sufficient bases to conclude that the relevant market for
18 evaluating this transaction is the market for VR dedicated fitness apps. *Brown Shoe Co.*, 370
19 U.S. at 320-21 ("Congress neither adopted nor rejected specifically any particular tests for
20 measuring the relevant markets, either as defined in terms of product or in terms of geographic
21 locus of competition, within which the anti-competitive effects of a merger were to be judged.")

22 55. The *Brown Shoe* analysis does not rely on Dr. Singer's survey or expert
23 testimony. Singer (FTC Expert) Hr'g Tr. at 540:8-21.

24 56. The United States is an appropriate relevant geographic market in which to
25 assess the probable effects of the proposed Acquisition. PX15 (Singer Rep.) at ¶¶ 70-73; Carlton
26 (Defendants' Expert) Hr'g Tr. at 1448:19-22.

27 57. "The relevant geographic market is the area of effective competition where
28

1 buyers can turn for alternate sources of supply.” *St. Alphonsus*, 778 F.3d at 784 (internal
2 quotation marks omitted).

3 58. As the Supreme Court has explained, the relevant geographic market must
4 “correspond to the commercial realities of the industry” as determined by a “pragmatic, factual,
5 approach.” *Brown Shoe*, 370 U.S. at 336.

6 59. While “technology knows no borders,” the “area of effective competition” is the
7 United States because the “realities of selling” differ across national borders including
8 differences in regulatory regimes, intellectual property licensing, languages, and availability.
9 *Bazaarvoice, Inc.*, 2014 WL 203966, at **27, 68.

10 60. Due to limitations on its music licenses, Supernatural is currently available only
11 in the U.S. and Canada; Meta Quest headsets also have a dynamic region lock, such that a user’s
12 geolocation determines content availability and prices. *Supra* Findings of Fact ¶¶ 19; Milk
13 (Within) Hr’g Tr. at 671:7-9.

14 61. In addition, not all headsets are sold in all countries; headsets sold abroad and
15 any associated proprietary content are effectively unavailable to United States consumers unless
16 and until the headset’s manufacturer chooses to make that headset available in the United
17 States. *See supra* Findings of Fact ¶ 50.a.

18 62. Given these commercial realities, the United States is an appropriate relevant
19 geographic market in which to analyze the likely effects of the Acquisition.

20 **2. The Acquisition May Substantially Lessen Competition in the VR Dedicated**
21 **Fitness App Market**

22 63. Section 7 of the Clayton Act prohibits transactions where “the effect of such
23 acquisition may be substantially to lessen competition, or tend to create a monopoly” regardless
24 of whether the competition eliminated is present or potential. *E.g., Falstaff Brewing*, 410 U.S. at
25 527 n.1 (quoting 15 U.S.C. § 18).

26 64. “The potential-competition doctrine has meaning only as applied to concentrated
27 markets.” *Marine Bancorp.*, 418 U.S. at 630.

65. “If the target market performs as a competitive market in traditional antitrust terms, the participants in the market will have no occasion to fashion their behavior to take into account the presence of a potential entrant.” *Id.*

66. For a theory of anticompetitive harm based on actual potential competition, the government must additionally show that the merger would eliminate a firm that is reasonably probable to enter the relevant market through alternative means, leading to deconcentration or other procompetitive effects in the market. *See, e.g., Phillips Petrol.*, 367 F. Supp. at 1239 (determining Phillips was a likely unilateral entrant based on its size, resources, capability, and motivation with respect to entry into an “adjacent attractive market”); *BOC Int’l Ltd. v. FTC*, 557 F.2d 24, 29 n.7 (2d Cir. 1977) (requiring only a reasonable probability that the acquiring firm would enter the relevant market).¹

67. For perceived potential competition, the question is whether the merger would eliminate “a potential competitor on the fringe of the market with likely influence on existing competition.” *Falstaff Brewing*, 410 U.S. at 533-34.

68. That the market may be an emerging one poised for rapid growth might make it particularly susceptible to antitrust harm. *Bazaarvoice*, 2014 WL 203966 at *76 (“rapid technological progress may provide a climate favorable to increased concentration of market power rather than the opposite.”) (quoting *Greyhound Computer Corp., Inc. v. Int’l Bus.*

¹ That Federal Trade Commission counsel in one case almost a decade ago suggested an additional element requiring that the acquiring firm be one of only a few entrants does not mean that is the settled law. In that case, critically, the court assumed, without deciding, the validity of the actual potential competition doctrine and did not reach the issue of whether any individual element was required. *See FTC v. Steris*, 133 F. Supp. 3d 962, 966 (N.D. Ohio 2015). In any event, the barriers to entry in this case demonstrate that only few firms—and, in particular, Meta—are uniquely positioned to enter with a successful product to challenge the market leader, Supernatural. *See infra* Conclusions of Law 152–157.

1 *Machines Corp.*, 559 F.2d 488, 497 (9th Cir. 1977)); *In re Union Carbide Corp.*, 59 F.T.C. 614,
 2 1961 WL 65409, at *35 (F.T.C. Sept. 25, 1961) (“Any lessening of competition is therefore
 3 doubly harmful in a new industry since its inevitable effect is to slow down the growth rate of
 4 the industry.”).

5 69. “Nascency” of a market does not insulate its leaders from antitrust scrutiny:
 6 “suffice it to say that it would be inimical to the purpose of the Sherman Act to allow
 7 monopolists free reign to squash nascent, albeit unproven, competitors at will—particularly in
 8 industries marked by rapid technological advance and frequent paradigm shifts.” *United States*
 9 *v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001).

10 **a) The VR Dedicated Fitness App Market Is Concentrated**

11 70. The VR Dedicated Fitness App market more than satisfies the requirement of a
 12 concentrated market.

13 71. The government can make a prima facie showing that a market is concentrated
 14 based on market-share statistics alone. *Marine Bancorp.*, 418 U.S. at 631; *Tenneco, Inc. v. FTC*,
 15 689 F.2d 346, 352 (2d Cir. 1982) (“Four-firm concentration was over 90% and two-firm
 16 concentration was over 77%. . . . This fact alone ‘established a prima facie case that the . . .
 17 market was a candidate for the potential-competition doctrine.’” (quoting *Marine Bancorp.*, 418
 18 U.S. at 631)).

19 72. In *Marine Bancorp.*, for example, the Supreme Court found that the Government
 20 carried its burden at trial by offering evidence that three firms controlled 92 percent of the
 21 relevant market, a figure high enough to conclude that the market was “oligopolistic.” *Marine*
 22 *Bancorp.*, 418 U.S. at 631-32.

23 73. Similarly, in *Yamaha Motor*, the Eighth Circuit affirmed the Commission’s
 24 finding, after a trial on the merits, that the relevant market was “oligopolistic” where the “top
 25 four firms had 98.6% of the dollar volume” and the top two firms “controlled 85.0% of the
 26 market by dollar volume.” 657 F.2d at 979.

27 74. In *Marine Bancorp.*, the Supreme Court further explained that the potential
 28

1 competition “doctrine comes into play only where there are dominant participants in the target
 2 market engaging in interdependent or parallel behavior and with the capacity effectively to
 3 determine price and total output of goods or services. If the target market performs as a
 4 competitive market in traditional antitrust terms, the participants in the market will have no
 5 occasion to fashion their behavior to take into account the presence of a potential entrant.” 418
 6 U.S. at 630.

7 75. This statement reflected economic understanding of the time, in which market
 8 concentration was understood to manifest mainly through price and output coordination; in the
 9 ensuing decades, however, antitrust law and economics have increasingly recognized other
 10 harms from limited competition, such as harm to innovation and harm from eliminating direct
 11 (unilateral) competition between market participants. *Guidelines* § 6 (unilateral effects) & § 6.4
 12 (innovation and product variety: “curtailment of innovation could take the form of reduced
 13 incentive to continue with an existing product-development effort or reduced incentive to
 14 initiate development of new products”).

15 76. Indeed, mergers can lessen competition in a variety of ways besides raising
 16 prices or restricting output. *See, e.g., United States v. AT&T, Inc.*, 916 F.3d 1029, 1045 (D.C.
 17 Cir. 2019) (“[M]ergers can create harms beyond higher prices for consumers, including
 18 decreased product quality and reduced innovation.”); *United States v. H & R Block, Inc.*, 833 F.
 19 Supp. 2d 36, 82 (D.D.C. 2011 (finding merger could yield multiple anticompetitive effects,
 20 including limited innovation); *see also United States v. Bertelsmann SE & CO. KGaA*, 2022
 21 WL 16949715, at *30 (D.D.C. Nov. 15, 2022) (publishers’ merger could lead to worse contract
 22 terms being offered to authors).

23 77. Importantly, Section 7 of the Clayton Act—the statute at issue in *Marine*
 24 *Bancorp.* and under which the Federal Trade Commission has brought its challenge to the
 25 proposed Acquisition—does *not* require a showing of actual anticompetitive behavior. *FTC v.*
 26 *Procter & Gamble Co.*, 386 U.S. 568, 577 (1967) (“If the enforcement of § 7 turned on the
 27 existence of actual anticompetitive practices, the congressional policy of thwarting such
 28

practices in their incipency would be frustrated.”); *cf. Brown Shoe Co.*, 370 U.S. at 328-329 (“the tests for measuring the legality of any particular economic arrangement under the Clayton Act are to be less stringent than those used in applying the Sherman Act.”).

78. That is because Section 7 prohibits acquisitions affecting commerce where “the effect of such acquisition *may be* substantially to lessen competition, or tend to create a monopoly.” 15 U.S.C. § 18 (emphasis added).

79. In other words, there is no requirement under Section 7 to prove conspiracy or unlawful behavior in the target market. *Compare Marine Bancorp.* 418 U.S. at 630-31, with 15 U.S.C. § 1 (Section 1 of the Sherman prohibits contracts, combinations, or conspiracies in restraint of trade and carries criminal penalties) & *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 552 (2007) (“parallel business conduct, taken alone, [does] not state a claim under Section 1”).

80. A common metric for evaluating market concentration is the Herfindahl-Hirschman Index (“HHI”). *St. Alphonsus*, 778 F.3d at 786; *Optronic Techs., Inc. v. Ningbo Sunny Elec. Co.*, 414 F. Supp. 3d 1256, 1263-64 (N.D. Cal. 2019).

81. HHI figures are calculated by summing the squares of the market share of each market participant. *Guidelines* § 5.3.

82. “HHI is a measure of industry concentration that has been widely accepted by courts considering antitrust merger and acquisition actions.” *Optronic Techs., Inc.*, 414 F. Supp. 3d at 1263.

83. According to the *Guidelines*, a market is considered “moderately concentrated” when the HHI exceeds 1500, and “highly concentrated” when the HHI exceeds 2500. *Id.*

84. The level of market concentration in the VR Dedicated Fitness App market greatly exceeds what is required for the potential competition doctrine to apply; the market HHI is 6,917 based on the list of VR apps that compete with Supernatural provided by Meta and Within during the Federal Trade Commission’s investigation, and 6,148 based on the apps in the “Fitness & Wellness” section of the Meta Quest Store. PX15 (Singer Rep.) ¶ 76.

1 85. Two applications—[REDACTED] of the
2 market’s revenues. PX15 (Singer Rep.) ¶¶ 75-76, Table 2-A; *see also, e.g., Yamaha Motor*, 657
3 F.2d at 974 (top four firms accounted for 98.6 percent and top two for 85 percent of the relevant
4 market); *Phillips Petrol.*, 367 F. Supp. at 1253 (top four accounted for 58 percent).

5 86. The presence or entry of smaller VR dedicated fitness apps outside the two lists
6 relied on by the Federal Trade Commission’s expert Dr. Singer—or even outside the core group
7 of apps commonly identified by market participants as competing against Supernatural—does
8 not meaningfully alter the concentration of the market for VR dedicated fitness apps. *See FTC*
9 *v. Procter & Gamble Co.*, 386 U.S. 568, 578 (1967) (finding that the market at issue was
10 oligopolistic despite “the existence of some 200 fringe firms”); *supra* Findings of Fact ¶¶ 159–
11 160.

12 87. The Guidelines favor the use of revenues to measure market shares, because
13 “[r]evenues in the relevant market tend to be the best measure of attractiveness to customers.”
14 Guidelines § 5.2.

15 88. While the Guidelines do allow for the use of alternate metrics for market
16 concentration, there is no compelling reason for deviating from revenues in this case; here, there
17 is no “new, much less expensive product [that] substantially erodes the revenues earned by”
18 Supernatural. *Id.*; PX16 (Singer Rebuttal Rep.) ¶ 127, Table 2; PDX1 at 14.

19 89. Based on the *Brown Shoe* indicia, rhythm apps and active sport games such as
20 Gym Class are not appropriate candidate products for the VR Dedicated Fitness App market.
21 *Supra* Findings of Fact ¶¶ 126–133.

22 90. [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]

26 91. In any event, even when measuring shares by usage and using a broader set of
27 potential products, three apps—[REDACTED]
28

1 [REDACTED] of time spent. DX1230 (Carlton (Defendants' Expert) Rep.) at 176 Table 8; *supra* Findings
2 of Fact ¶ 159.

3 92. The market concentration here, combined with the overall market structure,
4 makes this market particularly appropriate for applying the potential competition doctrine. *See*
5 *e.g.*, *Marine Bancorp.*, 418 U.S. 602, 630-31; *Falstaff Brewing*, 410 U.S. at 539-40.

6 93. Moreover, although not necessary, there is evidence of market participants
7 "fashion[ing] their behavior to take into account the presence of a potential entrant." *Marine*
8 *Bancorp.*, 418 U.S. at 630.

9 94. Specifically, Within took steps expressly to [REDACTED] in
10 response to potential entrants and, in particular, Meta's Beat Saber. *E.g.*, PX703 (Within) at 10
11 (working toward [REDACTED])

12 [REDACTED]); PX665 (Within) at 1 [REDACTED]

13 [REDACTED]
14 [REDACTED]
15 [REDACTED]"); PX621 (Within) at 2 ([REDACTED])

16 [REDACTED]
17 [REDACTED]); Milk (Within) Hr'g Tr. at 710:24-711:1 [REDACTED]

18 [REDACTED]
19 [REDACTED]"); PX620 (Within) at 36 ([REDACTED])

20 [REDACTED]
21 [REDACTED]); *see also supra* Findings of Fact ¶¶ 228–232.

22 95. Due to network effects and Meta's unique powers from its operation and control
23 of the dominant VR platform, *supra* Findings of Fact ¶¶ 349–377, the need to preserve the
24 potential for deconcentration is especially acute here. *Cf. Polygram Holding v. FTC*, 416 F.3d
25 29, 37 (D.C. Cir. 2005) ("as economic learning and market experience evolve," so does antitrust
26 analysis).

27 **b) It Is Reasonably Probable That Meta Would Enter the Market Through**
28

Other Means Absent the Acquisition, Leading to Procompetitive Effects

96. The Supreme Court has stated that “[t]wo essential preconditions must exist before it is possible to resolve whether the [actual potential competition] theory, if proved, establishes a violation of § 7”: (1) the acquiring firm has “available feasible means” for entering the market and (2) “that those means offer a substantial likelihood of ultimately producing deconcentration of that market or other significant procompetitive effects.” *Marine Bancorp.*, 418 U.S. at 633.

97. Subsequent courts analyzing claims based on a theory of harm to actual potential competition have interpreted *Marine Bancorp.* to require a showing that there is a reasonable probability the acquiring firm would have entered the market but for the proposed acquisition, and that its entry would have had pro-competitive effects. *E.g.*, *Tenneco*, 689 F.2d at 352; *BOC Int’l*, 557 F.2d at 29 n.7.

98. A firm “must be considered to be a significant potential entrant” “where credible objective evidence shows the basic economic facts of the acquiring company’s overall size, resources, capability, and motivation with respect to entry into an adjacent attractive market involving a line of commerce in which the firm is already heavily engaged.” *Phillips Petrol.*, 367 F. Supp. at 1239.

99. Importantly, the inquiry focuses on *objective* evidence. *Id.* (subjective evidence, like testimony from company executives about their intentions, “while relevant and entitled to consideration, cannot be determinative in evaluating the legality of the acquisition under § 7. If strong objective evidence points to a contrary conclusion, the objective evidence must prevail”); *see also Falstaff Brewing*, 410 U.S. at 546 (“subjective evidence should be preferred only when the objective evidence is weak or contradictory.”) (Marshall, J., concurring).

100. As the Supreme Court has explained, “[p]otential competition cannot be put to a subjective test.” *Penn-Olin Chem. Co.*, 378 U.S. at 174.

101. The Court thus has cautioned that a requirement of evidence such as specific intent to enter a market absent an acquisition, would heighten the required showing under

1 Section 7. *Id.* at 175 (“Unless we are going to require subjective evidence, this array of
 2 probability certainly reaches the prima facie stage. As we have indicated, to require more would
 3 be to read the statutory requirement of reasonable probability into a requirement of certainty.
 4 This we will not do.”).

5 102. In particular, courts should limit the role of “testimony by company officials as
 6 to the firm’s future intent” in actual potential competition cases where objective evidence of a
 7 firm’s capabilities and economic self-interest is available. *Falstaff Brewing*, 410 U.S. at 566-68
 8 (Marshall, J., concurring) (“The reasons for so limiting the role of subjective evidence are not
 9 difficult to discern. . . . it is in the very nature of such evidence that in the usual case it is not
 10 worthy of credit. First, any statement of future intent will be inherently self-serving. A
 11 defendant in a § 7 case such as this wishes to enter the market by acquisition and its managers
 12 know that its ability to do so depends upon whether it can convince a court that it would not
 13 have entered de novo if entry by acquisition were prevented. It is thus strongly in management’s
 14 interest to represent that it has no intention of entering de novo”); *Phillips Petrol.*, 367 F.
 15 Supp. at 1238 (“It will thus be in a company’s self-interest to present subjective evidence of a
 16 lack of any intent to enter the market unilaterally and of a lack of any effect on the competitive
 17 behavior of firms in the market arising from the company’s presence on the edge of the
 18 market.”); *cf. Chicago Bridge & Iron Co. N.V. v. FTC*, 534 F.3d 410, 435 (5th Cir. 2008)
 19 (evidence “deemed of limited value whenever such evidence could arguably be subject to
 20 manipulation”); *United States v. Aetna, Inc.*, 240 F. Supp. 3d 1, 88 (D.D.C. 2017) (actions taken
 21 to improve litigation position should be discounted).

22 103. The standard is one of reasonable probability given that “[u]nequivocal proof
 23 that an acquiring firm actually would have entered de novo but for a merger is rarely available.”
 24 *Marine Bancorp.*, 418 U.S. at 624; *accord BOC Int’l Ltd*, 557 F.2d at 29 n.7 (“In view of the
 25 ample express authority, including congressional authority, in favor of a reasonable probability
 26 standard . . . we decline to adopt any more stringent standard here.”); *see also Yamaha Motor*,
 27 657 F.2d at 977-79 (finding that Yamaha “probably” would have entered the relevant market
 28

absent the joint venture at issue); *Rep. of Texas Corp. v. Bd. of Governors*, 649 F.2d 1026, 1047 (5th Cir. 1981); *United States v. Siemens Corp.*, 621 F.2d 499, 506-07 (2d Cir. 1980).

104. The Supreme Court has repeatedly endorsed the reasonable-probability-of-entry standard and cautioned against heightening it. *Marine Bancorp.*, 418 U.S. at 641; *Penn-Olin*, 378 U.S. at 175.

105. A few scattered instances exist in which courts have applied a “clear proof” standard, but these outlier cases have involved only actual potential competition. *FTC v. Atl. Richfield Co.*, 549 F.2d 289, 294 (4th Cir. 1977) (suggesting a novel requirement of “unequivocal proof” could apply “*in a case where only actual potential competition is claimed*”) (emphasis added); *In re B.A.T. Indus., Ltd.*, 1984 WL 565384, at *1-2 (F.T.C. Dec. 17, 1984) (applying a “clear proof” standard in a case that only alleged actual potential competition).

106. This case, however, involves both actual and perceived potential competition. *See Phillips Petrol.*, 367 F. Supp. at 1234 (elimination of both perceived and actual potential competition “renders the anticompetitive consequences of the acquisition even greater”).

107. In *Altria Group, Inc.*, a case currently on appeal before the Commission, Chief Administrative Law Judge Chappell did not apply a “clear proof” standard; Judge Chappell instead found that Complaint Counsel in that case had failed to meet its burden under either standard and declined to decide between the two. 173 FTC 240, 317 n.34, 318-19 (F.T.C. 2022).

108. “[T]he loss of competition ‘which is sufficiently probable and imminent’ is the concern of § 7.” *Marine Bancorp.*, 418 U.S. at 623 n.22 (quoting *United States v. Continental Can Co.*, 378 U.S. 441, 458 (1964)).

109. A court, however, “need not decide whether the probable entry of the acquiring firm must be ‘imminent’ in an actual potential entrant situation.” *BOC Int’l Ltd.*, 557 F.2d at 29; *accord Bertlesmann SE & CO. KGaA*, 2022 WL 16949715, at *10 n.14 (“Although defendants quote from *United States v. Marine Bancorp.* for the proposition that a merger’s anticompetitive effects must also be ‘imminent’ to violate the Clayton Act, the full quotation

1 from that case is that the ‘loss of competition which is *sufficiently* probable and imminent’ is the
2 concern of § 7.” (emphasis in original) (citations omitted)).

3 110. Objective evidence regarding Meta’s “overall size, resources, capability, and
4 motivation with respect to entry” demonstrate a reasonable probability that Meta would have
5 entered the VR Dedicated Fitness App market but for the Acquisition. *See Phillips Petrol.* 367
6 F. Supp. at 1226 (listing factors).

7 111. Meta is a massive technology company with ample resources to develop a VR
8 dedicated fitness app on its own, either by creating a new app from scratch; by adding dedicated
9 fitness features, like trainers and coaching, to an existing app like Beat Saber; or by acquiring a
10 generalist studio that could supplement Meta’s formidable first-party studios in creating such an
11 app. *Supra* Findings of Fact ¶¶ 254–290.

12 112. Mr. Zuckerberg has made VR and the metaverse the cornerstone of Meta’s
13 future, and Meta has spent tens of billions of dollars and hired thousands of engineers to achieve
14 his vision. *Supra* Findings of Fact ¶¶ 21–34, 107–111.

15 113. In addition to ample resources, Meta also has the capabilities to develop a VR
16 dedicated fitness app. *Supra* Findings of Fact ¶¶ 66–82, 323–330.

17 114. As Mr. Rabkin explained, “We could definitely build an application” for VR
18 dedicated fitness. Rabkin (Meta) Hr’g Tr. at 815:5-9.

19 115. In just the last three years, Meta has acquired nine successful VR development
20 studios with a track record of building, launching, and supporting VR apps. *Supra* Findings of
21 Fact ¶ 65.

22 116. The company has successfully developed its own VR applications, including the
23 productivity app Horizon Workrooms, Horizon Worlds (which, notably, Meta elected to build
24 [REDACTED]), and the gaming app Dead and Buried, among
25 others. *Supra* Findings of Fact ¶¶ 67, 72–78.

26 117. The first-party studios that Meta owns have created at least twelve successful VR
27 apps, some of which require regular content releases. *Supra* Findings of Fact ¶ 65.

1 118. Meta also produced and publicly released a “bespoke” fitness track for Beat Saber
2 called “FitBeat,” and developed certain features and products that make the Oculus more
3 appealing for fitness-focused users, including Oculus Move and the Quest 2 Active Pack. *Supra*
4 Findings of Fact ¶¶ 184–185, 207–210.

5 119. Meta has the motivation to enter the VR Dedicated Fitness App market because
6 VR “fitness is retentive,” [REDACTED], and attracts a diverse
7 demographic, including more women and older users. *Supra* Findings of Fact ¶¶ 171–211, 113,
8 137.

9 120. Indeed, part of Meta’s rationale for acquiring Beat Games in 2019 was that it
10 was a vector into fitness. *Supra* Findings of Fact ¶¶ 197–201.

11 121. Although it is not necessary in this case, subjective evidence demonstrates that
12 Meta itself had the intentions to enter—and thus was a reasonably probable entrant into—the
13 VR Dedicated Fitness App market. *Supra* Findings of Fact ¶¶ 234–311.

14 122. Prior to deciding to acquire the market leader, Supernatural, Meta was in the
15 midst of “a big analysis of the fitness app sector” and exploring multiple paths to entry. *Supra*
16 Findings of Fact ¶¶ 241–311.

17 123. Those included “expanding Beat Saber to deliberate fitness,” either through
18 partnership with a fitness brand like Peloton, and/or by building out the Beat Saber app
19 organically, through hiring efforts that would take “8-12mos . . . conservatively” or by
20 “buy[ing] a studio for development capacity.” *Supra* Findings of Fact ¶¶ 254–287.

21 124. When apprised of these efforts, Mr. Zuckerberg exclaimed: “I’m bullish on
22 fitness. A partnership with Peloton for Beat Saber sounds awesome! I’d love to see that
23 happen.” PX118 (Meta) at 1.

24 125. In the second quarter of 2022, Meta did, in fact, buy a development studio,
25 Armature Studio, which Meta believed was “uniquely positioned to deliver on our fitness /
26 sports ambitions.” PX527 (Meta) at 8; Stojasavljevic (Meta) Hr’g Tr. at 124:23-125:18; PX52
27 (Stojasavljevic (Meta) Dep.) at 136:24-137:23.

1 126. Given its unique advantages and capabilities, Meta’s independent entry into the
2 VR Dedicated Fitness App market—derailed by the Acquisition—would have provided U.S.
3 customers an innovative alternative likely to result in significant deconcentration and
4 procompetitive benefits, including by, among other things, introducing a strong, well-
5 established new rival to Supernatural and FitXR. *See, e.g., Yamaha Motor*, 657 F.2d at 979
6 (“Any new entrant of Yamaha’s stature would have had an obvious procompetitive effect
7 leading to some deconcentration.”); *BOC Int’l, Ltd.*, 557 F.2d at 27 (“[T]ypically in an
8 oligopolistic situation the entry of a large firm as a new competitor has significant
9 procompetitive effects.”).

10 127. By way of contrast, as the Supreme Court has recognized, a proposed acquisition
11 that substitutes a “powerful acquiring firm” for a “smaller, but already dominant, firm” in a
12 concentrated industry “may substantially reduce the competitive structure of the industry by
13 raising entry barriers and by dissuading the smaller firms from aggressively competing.”
14 *Procter & Gamble Co.*, 386 U.S. at 578.

15 128. Even more so than the defendant in *Yamaha*, Meta is a well-established
16 international firm “with considerable financial strength” and “considerable marketing
17 experience in the United States,” *Yamaha Motor*, 657 F.2d at 979, such that its entry “would
18 have had an obvious procompetitive effect” in the VR Dedicated Fitness App market. *See id.*

19 129. This entry would increase consumer choice, increase innovation, spur additional
20 competition to attract the best talent, and yield a host of other competitive benefits.

21 130. But if allowed to proceed, the Acquisition would simply swap an already
22 “powerful acquiring firm” for the current market leader, potentially entrenching its existing
23 position. *See Procter & Gamble Co.*, 386 U.S. 568 at 578.

24 131. Crucially, Meta’s independent entry would add a new player to the mix while
25 also maintaining the independent presence and competitive vitality of Supernatural, the most
26 successful VR dedicated fitness app to date.

27 132. Consumers will lose the benefit of this competition if the Acquisition proceeds.
28

c) Within Reasonably Perceived Meta as a Potential Entrant, and Meta's Presence on the Edge of the Market Likely Benefits Competition

133. The proposed Acquisition may also substantially lessen competition through the elimination of Meta as a perceived potential competitor on the edge of the relevant market with a likely procompetitive influence on competition. *See, e.g., Phillips Petrol.*, 367 F. Supp. at 1232-34.

134. Probabilistic proof of “likely influence” on existing competitors is sufficient; proof of “actual influence” is not necessary. *Falstaff Brewing*, 410 U.S. at 534 & n.13; *see also Marine Bancorp.*, 418 U.S. at 624 (“[T]he principal focus of the doctrine is on the likely effects of the premerger position of the acquiring firm on the fringe of the target market.”); *United States v. Black & Decker Mfg. Co.*, 430 F. Supp. 729, 773 (D. Md. 1976) (“the government need not introduce evidence of actual market response”); *Phillips Petrol.*, 367 F. Supp. at 1257 (“[T]he objective evidence demonstrates the substantially of the procompetitive effects exerted by Phillips from its position on the edge of the market prior to the acquisition.”).

135. The “same facts” that a district court must assess in determining a Clayton Act violation based on actual potential competition are “probative of [a] violation of § 7 through loss of a procompetitive on-the-fringe influence.” *Falstaff Brewing*, 410 U.S. at 534 n.13; *accord Phillips Petrol.*, 367 F. Supp. at 1255.

136. To determine if a merger ultimately violates Section 7, “the question . . . is not what [the Acquiring company’s] internal company decisions were, but whether, given its financial capabilities and conditions in [the relevant] market, it would be reasonable to consider it a potential entrant in that market.” *Falstaff Brewing*, 410 U.S. at 533; *see also Phillips Petrol.* 367 F. Supp. at 1255 (noting that evidence of a likely influence on existing competition “may be shown by direct evidence as well as by inference from objective economic facts” including “objective evidence of capability and motivation”).

137. Notably, in a perceived potential competition case, a merger can lessen competition “even if it were assumed that the potential competitor would not actually have

1 entered the market.” *Phillips Petrol.*, 367 F. Supp. at 1234.

2 138. Here, not only was it “reasonable” for Within to consider Meta a potential
3 entrant; Within’s ordinary-course documents reveal that it in fact perceived Meta—and in
4 particular Meta’s wildly popular Beat Saber app—as “a potential competitor on the fringe of the
5 market.” *Supra* Findings of Fact ¶¶ 213–225; *see Falstaff Brewing*, 410 U.S. at 534.

6 139. Moreover, Meta documents indicate that other VR dedicated fitness app
7 companies perceived it as a potential entrant into the VR Dedicated Fitness App market. *Supra*
8 Findings of Fact ¶ 226.

9 140. In September 2021, Within attempted to negotiate a [REDACTED] purchase price,
10 in response to which Meta executives communicated to Within that Meta was “intent in the
11 space,” even if the Acquisition did not proceed; not long thereafter, taking Meta’s words to
12 heart, Within agreed to a purchase price that was [REDACTED] less than it had been
13 seeking. *Supra* Findings of Fact ¶¶ 319–322.

14 141. Irrespective of Within’s subjective beliefs, objective evidence further supports
15 that it was reasonable for Within to perceive Meta as a potential entrant. *See Phillips Petrol.*,
16 367 F. Supp. at 1255.

17 142. Meta’s Beat Saber, the leading application on the Meta Quest Store, employs the
18 same mechanics as Supernatural, and is widely recognized as providing incidental fitness
19 benefits. *Supra* Findings of Fact ¶¶ 191–195.

20 143. Further, Meta took steps to expand Beat Saber into the dedicated fitness space by
21 releasing “FitBeat” in April 2020. *Supra* Findings of Fact ¶¶ 207–210.

22 144. Meta’s presence on the edge of the VR Dedicated Fitness App market caused
23 more than just the requisite “likely influence”; it provided actual procompetitive benefits that
24 will be eliminated if the Acquisition is consummated. *See Falstaff Brewing*, 410 U.S. at 534;
25 *Phillips Petrol.*, 367 F. Supp. at 1232-34.

26 145. Within acknowledges that it must innovate and continually improve its product
27 to distance itself from potential competition. *Supra* Findings of Fact ¶ 228.

1 146. [REDACTED]

2 [REDACTED] *Supra* Findings of Fact ¶¶ 229–
3 232.

4 147. [REDACTED]

5 [REDACTED]
6 [REDACTED] PX615 (Within) at 8-9.

7 148. [REDACTED]

8 [REDACTED]
9 [REDACTED] PX712 (Within) at 48.

10 149. That Within did take into account potential entry confirms that the VR Dedicated
11 Fitness App market is the type of market suited for the potential competition doctrine. *Marine*
12 *Bancorp.*, 418 U.S. at 631 (“If the target market performs as a competitive market in traditional
13 antitrust terms, the participants in the market will have *no occasion to fashion their behavior to*
14 *take into account the presence of a potential entrant.*” (emphasis added)).

15 150. In sum, Meta’s position as a potential entrant on the edge of the market has a
16 likely beneficial effect on competition that will be lost if Meta acquires Within. *See Falstaff*
17 *Brewing*, 410 U.S. at 534; *Phillips Petrol.*, 367 F. Supp. at 1232-34.

18 151. This loss of perceived potential competition, coupled with the loss of actual
19 potential competition, “renders the anticompetitive consequences of the acquisition even
20 greater.” *Phillips Petrol.*, 367 F. Supp. at 1234.

21 **3. Defendants Have Failed to Rebut the Federal Trade Commission’s Case**

22 152. Defendants cannot demonstrate that entry by others will be timely, likely, and
23 sufficient, *see Bazaarvoice*, 2014 WL 203966, at *71, or that there are cognizable merger-
24 specific efficiencies, to prevent the Acquisition’s anticompetitive effects.

25 153. Courts have repeatedly found that capital and labor costs, time, software
26 development resources, and required minimum scale can all constitute barriers to entry. *See,*
27 *e.g., FTC v. Sysco Corp.*, 113 F. Supp. 3d 1, 80-81 (D.D.C. 2015) (finding that high capital and
28

labor costs can be entry barriers); *FTC v. CCC Holdings, Inc.*, 605 F. Supp. 2d. 26,52 (D.D.C. 2009) (complexity of developing software and establishing a reputation constituted entry barriers); *United States v. United Tote, Inc.*, 768 F. Supp. 1064, 1075 (D. Del. 1991) (time and effort to develop a competing product and gain customer acceptance constituted entry barriers); *Phillips Petrol.*, 367 F. Supp. at 1254 (market at issue had “extremely high barriers to entry” given the costs that would be incurred to build from scratch, the number of firms in the industry, and those firms’ access to capital).

154. The VR Dedicated Fitness App market is characterized by high barriers to entry. *Supra* Findings of Fact ¶¶ 339–386.

155. Building a successful VR dedicated fitness app requires [REDACTED], and talent that Meta acknowledges is increasingly scarce. *Supra* Findings of Fact ¶¶ 343–347.

156. Indeed, Meta’s (mistaken) concerns that Apple may take Supernatural off of Meta’s platform are an acknowledgement that it is difficult to build a successful VR dedicated fitness app. PX55 (Verdu (Meta) Dep.) at 242:3-243:3 (discussing Meta’s concern about a possible acquisition by Apple and its desire to ensure that Supernatural remained available on Quest); Bosworth (Meta) Hr’g Tr. at 1008:5-25.

157. Moreover, inclusion on the Quest Store itself and other advantages of owning the VR platform are significant barriers to entry over which Meta exercises total control. *Supra* Findings of Fact at ¶¶ 349–377; *see also* PX50 (Zuckerberg (Meta) Dep.) at 154:20-21 ([REDACTED]); Garcia (Odders Lab) Hr’g Tr. 1102:16-23

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

158. The “Supreme Court has never expressly approved an efficiencies defense to a §

7 claim,” and the Ninth Circuit has stated that it “remain[s] skeptical about the efficiencies defense in general and about its scope in particular.” *St. Alphonsus*, 778 F.3d at 788-89, 790.

159. In any event, to the extent such a defense is valid at all, Defendants would need to show “merger-specificity and verifiability” for any and all of their claimed efficiencies. *United States v. Anthem*, 855 F.3d 345, 355-56 (D.C. Cir. 2017)

160. No meaningful efficiencies defense has even been presented here: Meta’s Chief Technology Officer, Mr. Bosworth, admitted: “I don’t think we’ve identified any real synergies here. This is not -- this wasn’t a synergistic acquisition in that way. . . . I don’t know of any cost savings that have been identified” PX54 (Bosworth (Meta) Dep. at 160:21-161:13); *accord* Bosworth (Meta) Hr’g Tr. at 1049:19-21; 1053:6-22; DX1212 (Rubin 30(b)(6) (Meta) Dep.) at 18:25-19:22, 23:1-11.

161. Meta’s economic expert testified that he had not independently verified or assessed the merger-specificity of any of Meta’s claimed efficiencies here. Carlton (Defendants’ Expert) Hr’g Tr. at 1443:17-25.

162. Further, following its prior acquisitions, businesses are integrated into Meta, and Meta has represented for every VR acquisition that it does not track [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] PX17 (Meta Responses and Objections to FTC Interrogatory No. 1) at 8-12.

163. International music licensing is not efficiency in the relevant geographic market and should not be considered. *See* Guidelines § 10 n.14; *see also Anthem*, 855 F.3d at 363-64 (rejecting savings claims that, among other “analytic flaws,” were “unmoored from the actual market at issue”).

B. The Equities Support a Preliminary Injunction

164. “The second step in deciding whether to grant a preliminary injunction is to balance the equities.” *Warner Commc’ns*, 742 F.2d at 1165.

1 165. If the Commission has shown a likelihood of success, “a countershowning of
2 private equities alone does not justify denial of a preliminary injunction.” *Id.*

3 166. The “principal public equity” favoring a preliminary injunction is “the public
4 interest in effective enforcement of the antitrust laws.” *H.J. Heinz*, 246 F.3d at 726.

5 167. Without preliminary relief, the Commission may face the “daunting and
6 potentially impossible task” of “unscrambling the eggs” if the proposed Acquisition is
7 ultimately deemed unlawful. *FTC v. Peabody Energy Corp.*, 492 F. Supp. 3d 865, 918 (E.D.
8 Mo. 2020).

9 168. As such, “[n]o court has denied relief to the FTC in a 13(b) proceeding in which
10 the FTC has demonstrated a likelihood of success on the merits.” *FTC v. ProMedica Health Sys.*
11 *Inc.*, 2011 WL 1219281, at *60 (N.D. Ohio Mar. 29, 2011).

12 169. Private equities do not support denial of a preliminary injunction. Dkt. No. 173
13 (Order Granting in Part FTC’s Motion to Strike) at 10 (“private equities alone do not outweigh
14 the Commission’s showing of likelihood of ultimate success.” (quoting *Warner*, 742 F.2d at
15 1165)).

16 170. Within’s survival is not in peril if the Court grants a preliminary injunction
17 because [REDACTED]
18 [REDACTED]” PX632 (Within) at 1.

19 171. In addition, the termination provisions of the merger agreement provide for a
20 [REDACTED] PX6 (Agreement and Plan of Merger) at
21 75, § 7.3(a).

22 172. There is nothing in the merger agreement that [REDACTED]
23 [REDACTED] See PX6 at 73-74, §§ 7.1, 7.1(b) ([REDACTED]
24 [REDACTED]).

25 173. In fact, [REDACTED]
26 [REDACTED] See PX6 at 73-74, §§ 7.1, 7.1(c)(ii) [REDACTED]
27 [REDACTED]
28

1 [REDACTED]
2 [REDACTED]
3 [REDACTED] (emphasis added)).

4 174. Moreover, the agreement itself is contingent on obtaining approval from
5 applicable antitrust regulatory authorities or [REDACTED]
6 [REDACTED] PX6 (Agreement and Plan of Merger) at 65 § 5.1(c).

7 175. [REDACTED]
8 [REDACTED] Koblin (Within) Hr’g Tr. at 715:12-716:6.

9 176. Defendants have not advanced the “failing company defense.” *See Olin Corp. v.*
10 *FTC*, 986 F.2d 1295, 1306-07 (9th Cir. 1993).

11 177. In any event, a “company invoking the defense has the burden of showing that its
12 resources [were] so depleted and the prospect of rehabilitation so remote that it faced the grave
13 probability of a business failure . . . and further that it tried and failed to merge with a company
14 other than the acquiring one.” *Id.* (internal quotation marks and citations omitted) (alteration in
15 original).

16 178. Defendants do not meet that burden here: Within’s executives testified that the
17 [REDACTED] Koblin (Within) Hr’g Tr. at 663:6-11;
18 664:24-665:5 [REDACTED]; Milk (Within) Hr’g Tr. at 758:18-25 [REDACTED].

19 179. The administrative trial in this proceeding is set to begin on January 19, 2023. *In*
20 *the Matter of Meta Platforms, Inc., Mark Zuckerberg, and Within Unlimited, Inc.*, Dkt. No.
21 9411 (Scheduling Order, Sept. 2, 2022) at 4².

22 180. Discovery in the administrative proceeding is complete but for the depositions of
23 _____

24 ² On December 22, 2022, the parties received correspondence from the Office of the
25 Administrative Law Judge directing them to meet and confer regarding filing a joint motion with
26 the Commission requesting expedited review and seeking a continuance or extension of the trial
27 date until two weeks after a ruling by this Court in the preliminary injunction proceeding.
28

1 experts. *Id* at 3.

2 181. Here, the equities support entry of a preliminary injunction pending resolution of
3 the administrative proceedings.

1 Dated: December 23, 2022

Respectfully submitted,

2 /s/ Abby L. Dennis

3 Abby L. Dennis

4 Peggy Bayer Femenella

5 Joshua Goodman

6 Jeanine Balbach

7 Michael Barnett

8 E. Eric Elmore

9 Justin Epner

10 Sean D. Hughto

11 Frances Anne Johnson

12 Andrew Lowdon

13 Lincoln Mayer

14 Erika Meyers

15 Susan A. Musser

16 Adam Pergament

17 Kristian Rogers

18 Anthony R. Saunders

19 Timothy Singer

20 James H. Weingarten

21 Federal Trade Commission

22 600 Pennsylvania Avenue, NW

23 Washington, DC 20580

24 Tel: (202) 326-2381

25 Erika Wodinsky

26 90 7th Street, Suite 14-300

27 San Francisco, CA 94103

28 Tel: (415) 848-5190

Counsel for Plaintiff Federal Trade

Commission