UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

FEDERAL TRADE COMMISSION, **Plaintiff,** **v.** **META PLATFORMS, INC.,** **Defendant.**	**Civil Action No. 20-3590 (JEB)**

MEMORANDUM OPINION

Believing that the only constant in the world was change, the Greek philosopher Heraclitus posited that no man can ever step into the same river twice. In the online world of social media, the current runs fast, too. The landscape that existed only five years ago when the Federal Trade Commission brought this antitrust suit has changed markedly. While it once might have made sense to partition apps into separate markets of social networking and social media, that wall has since broken down.

In this action, the FTC has argued that Facebook, Instagram, Snapchat, and minor player MeWe compete only with one another in a market that the agency calls "personal social networking" (PSN). It claims that Meta holds a monopoly in this market and, faced with challenges to its dominance, preserved its monopoly not by outcompeting its upstart rivals Instagram and WhatsApp, but by buying them. This, the agency has maintained, constitutes maintaining monopoly power through means other than competition on the merits, which would violate Section 2 of the Sherman Act.

Meta's position, conversely, is that if PSN apps were ever a separate economic unit, they no longer are. The company sees itself as competing in the broader field of social media, which

at a minimum includes TikTok and YouTube, fierce competitors for users' time and attention in this space. Adding those two companies to the relevant market, Defendant points out, diminishes Meta's share below monopoly level. What is more, Meta defends its acquisitions as beneficial to consumers.

In this fifth year of litigation, the Court held a lengthy bench trial, hearing from myriad witnesses throughout the industry, as well as from dueling sets of experts. As it has forecast in prior Opinions over the years, the FTC has an uphill battle to establish the contours of any separate PSN market and Defendant's monopoly therein. The Court ultimately concludes that the agency has not carried its burden: Meta holds no monopoly in the relevant market. Judgment must therefore be entered in its favor.

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I. Background

Rather than aggregate all its factual findings in one lengthy recitation, the Court uses this section to lay out the background against which to view the evidence it will then discuss. It begins with the platforms themselves: Facebook and Instagram, as well as two other apps that will play important roles in what follows — TikTok and YouTube. It next details Meta's business model, whose particulars will be critical in assessing market definition and monopoly power. The section winds up with a summary of this case's procedural history.

A. The Platforms

Consistent with our theme of change, the Court emphasizes that Facebook and Instagram have significantly transformed over the last several years. Before explaining that transformation, the Court first sketches the basics of Facebook, Instagram, TikTok, and YouTube. It then details how that quartet of social-media apps has recently converged to offer similar experiences.

1. *Facebook, Instagram, TikTok, YouTube*

The mighty Meta of today was once a scrappy dorm-room startup called The Facebook. See ECF No. 94 (Answer), ¶ 23. This upstart website — a threadbare tool to add friends and see their posts — launched for Harvard students in 2004, fanned out to other college campuses, and then opened up to the general public in 2006. Id. It kept growing at a dizzying pace: by the end of 2011, almost 850 million people a month were using Facebook. See Plaintiff's Exhibit (PX) 292 (Facebook S-1) at 8. Today, more than 3 billion people do. See Apr. 15 PM Tr. at 228:22–25.

If you are one of them, you can open Facebook's app and see your News Feed. See May 12 PM Tr. at 260:22–261:4; Apr. 14 PM Tr. at 151:21–24. This feed contains a mix of content from your friends, from accounts you follow, and from people who you do not know but who have posted something that Facebook thinks you will be interested in. See Apr. 14 PM Tr. at 170:9–15, 185:11–20; Defendant's Exhibit (DX) 1152 (Jan. 2025 Facebook Surface Breakdown). Just a tap away lie other features. These include Stories: disappearing posts from your friends and accounts you follow that are visible for only 24 hours. See Apr. 14 PM Tr. at 184:21–185:10; Stories, Facebook, https://perma.cc/69UV-N6UF. Or Facebook Reels, which Meta added in 2021. See ECF No. 539 (Joint Stipulations of Fact), ¶ 20. Reels are short videos that have been created by other users. Id., ¶ 21. They are made and posted by people whom a user does not know. See DX 1152 (Jan. 2025 Facebook Surface Breakdown). Instead, they are recommended by an AI algorithm based on the user's interests. See Apr. 16 AM Tr. at 24:21–25:5. Facebook also offers a separate app called Facebook Messenger, which lets users exchange private messages. Id. at 21:9–13, 105:14–21.

Facebook was not the only platform to sweep across the globe on the surging wave of social media. In 2010, Kevin Systrom and Mike Krieger launched an app called Instagram. See Joint Stipulations of Fact, ¶ 24. This app combined a photo-editing tool with a social network. If you downloaded the original Instagram, you could edit photos and upload them, follow other accounts, scroll through a feed of photos uploaded by accounts you followed, and like and comment on those photos. Id., ¶¶ 25–27; PX 3221 (Instagram Board Meeting Deck) at 13; Apr. 22 AM Tr. at 22:2–24:9.

Facebook bought Instagram in 2012, see Joint Stipulations of Fact, ¶¶ 58–59, and has been adding new features ever since. See DX 1180 (New Instagram Features); DX 1208 (New Instagram Features, 2023–25). Instagram today looks a lot like Facebook. It has a Feed, containing posts from accounts that you follow and content from strangers that an AI algorithm recommends. See May 8 AM Tr. at 92:4–17, 114:6–19. It also has Stories. See May 8 AM Tr. at 22:10–17. Embedded throughout the app is Instagram Reels. See May 8 PM Tr. at 157:11–17. And it lets you send private messages to other users. See May 8 AM Tr. at 96:25–97:2.

Meta's other relevant platform is WhatsApp, an internet-based messaging app that launched as an independent company in 2009. See May 20 AM Tr. at 103:18–104:2; May 20 PM Tr. at 155:8–17. Facebook bought WhatsApp in 2014. See Joint Stipulations of Fact, ¶¶ 60–61. The FTC theorizes that Facebook feared WhatsApp would build its own social network and bought the service to keep it out of Facebook's lane. See ECF No. 622-1 (FTC Post-trial Mem.) at 44, 49. WhatsApp is therefore relevant to whether Meta maintained its monopoly through an anticompetitive acquisition, but both sides agree that it does not belong in the relevant market. Id. at 8; ECF No. 629-1 (Meta Post-trial Findings of Fact), ¶¶ 89–138. Because the Court

decides this case on that market's boundaries alone, WhatsApp is not relevant to what follows and will now disappear from the case.

The company that started as a connection among Harvard students has thus grown to own three platforms. In 2021, the umbrella company changed its name to Meta. Introducing Meta: A Social Technology Company, Meta (Oct. 28, 2021), https://perma.cc/LD5Y-3P9J.

Two other social-media apps are relevant here: TikTok and YouTube. The former lets users watch and upload short videos. See Apr. 30 AM Tr. at 78:23–79:13. Like Facebook and Instagram, it has some social features: users can like videos, comment on them, repost them, search for specific accounts, follow accounts, exchange messages, and share videos with others — either in a TikTok message or via text message. Id. at 62:23–63:8, 84:13–86:10, 86:22–87:7, 87:19–88:2, 88:17–21. Yet the app's breakthrough innovation and central feature opened a new path that traditional social networks had not yet explored: an AI algorithm that shows users content based not on their friends, but on their interests. See PX 689 (Adam Presser Decl.) at 16. This is TikTok's For You page, a scrollable feed that the algorithm assembles by trawling through the app's videos, analyzing the user's behavior, and predicting which video she will most want to see next. Id. More than 70% of time on TikTok is spent on this feed. See Apr. 30 AM Tr. at 53:21–54:10. TikTok is a recent import to the United States, having arrived only in 2018. Id. at 32:17–18. It has since spread furiously. As of the start of this year, more than 170 million Americans per month were using the app. Id. at 65:22–25.

Finally, YouTube. This platform lets users upload videos and watch the billions of videos uploaded by others. See Apr. 17 PM Tr. at 151:5–8, 151:24–152:2, 196:6–11. It also recommends videos based on each user's interests and what others are watching. Id. at 154:4:3–4, 157:23–158:4, 173:3–7. Users can like videos and comment on them. Id. at 160:6–11, 164:9–

13. If watching a video on the YouTube app, they can tap a button to send it to others — say, by texting it to a friend. Id. at 189:23–191:1. Many videos on YouTube are longer than what you will find on TikTok or Instagram. See PX 13494 (Google Resp. to Australian Regulators) at 9; May 8 PM Tr. at 180:5–9. But the platform has also added YouTube Shorts, short videos that are virtually identical to a TikTok video or a Facebook or Instagram Reel. See Apr. 17 PM Tr. at 162:14–15; DX 1088 (TikTok Resp. to Australian Regulators) at 3–4.

2. *The Evolution of Meta's Apps*

The Facebook and Instagram that exist today bear little resemblance to the versions that readers might remember from the 2010s. Time was, both apps primarily showed content from users' friends — you might log on to Facebook and see a friend's post on your wall, then open up Instagram to a feed full of pictures from your friends' weekends. See Apr. 14 PM Tr. at 170:9–13; Apr. 16 AM Tr. at 53:20–54:5; Apr. 22 AM Tr. at 26:4–27:17; DX 517 (Mosseri Post on Meaningful Social Interactions) at 1. Those versions of Meta's apps are gone. See Apr. 14 PM Tr. at 170:14–171:25; Apr. 29 AM Tr. at 9:12–25.

Americans now spend only 17% of their time on Facebook viewing content from their friends. See DX 1152 (Jan. 2025 Facebook Surface Breakdown). On Instagram, that number is 7%. See DX 1153 (Jan. 2025 Instagram Surface Breakdown). What has replaced content from friends? For the most part, short videos posted by strangers and recommended by AI.

A majority of Americans' time on Facebook is now spent watching videos. See DX 1147 (U.S. Share of Facebook Time Spent on Video). Same for their time on Instagram. See DX 1153 (Jan. 2025 Instagram Surface Breakdown). In particular, both apps have shifted to primarily showing Reels. See Apr. 29 PM Tr. at 193:10–194:5; PX 10034 (Apr. 2022 Meta Executives Email Thread) at 4. Adam Mosseri, the Head of Instagram, painted a particularly

vivid picture of how central Reels is to that app: "[W]e integrated Reels throughout the entire experience. We added them to feed. . . . We added them to explore. We added them to the create flow. We added them to the Reels tab itself, and we added a Reels tab within the profile. So every tab . . . across Instagram had Reels integrated in some way across them." May 8 PM Tr. at 157:11–17. Most of the time that Americans spend on Instagram is spent watching Reels, see DX 1153 (Jan. 2025 Instagram Surface Breakdown), and Reels is also the single most-used part of Facebook. See DX 1152 (Jan. 2025 Facebook Surface Breakdown).

Reels relates to some helpful vocabulary that the Court will be returning to. Meta uses the phrase "connected content" for posts from accounts that a user has friended or followed. See Apr. 14 PM Tr. at 185:21–186:5. By contrast, "unconnected content" is from accounts that the user has not friended or followed. Id. at 186:5–7; Apr. 15 PM Tr. at 199:18–200:2.

The shift to Reels is notable because they are entirely unconnected. See DX 1152 (Jan. 2025 Facebook Surface Breakdown); DX 1153 (Jan. 2025 Instagram Surface Breakdown). Even feeds that used to show endless streams of friends' posts now mostly display unconnected content. Today, fewer than 15% of posts that users see in Facebook's News Feed are original posts from their friends. See May 12 AM Tr. at 44:8–45:13; May 14 PM Tr. at 248:12–17; Defendant's Demonstrative (DDX) 29.3 (Facebook Feed Composition); see also DX 1152 (Jan. 2025 Facebook Surface Breakdown) (calculating this number as 25%, possibly by including content that friends reshare). On Instagram's Feed, that number is 5%. See DX 1153 (Jan. 2025 Instagram Surface Breakdown).

To be sure, connecting with friends remains an important part of both apps. See Apr. 14 PM Tr. at 162:11–163:8, 164:1–10, 181:13–25; May 8 AM Tr. at 18:8–19, 86:11–87:1; May 15 AM Tr. at 10:11–13; PX 708 (Mosseri Interview) at 12; PX 3008 (Facebook Feed & Ecosystems

Deck) at 39; PX 10034 (Apr. 2022 Meta Executives Email Thread) at 1; PX 12341 (Zuckerberg-Mosseri Email Exchange) at 2–3; PX 12669 (FB App Strategy Thread) at 4; DX 522 (Instagram 2021 H2 Planning Primer) at 3. Yet friends' content has withdrawn from the main feature to a smaller ingredient in a blend. See May 14 PM Tr. at 218:7–12 (friend content "is becoming a supporting part of the cast instead of the main character"); PX 3827 (Aug. 2022 Meta Email Thread) at 2; May 12 AM Tr. at 41:2–8; May 8 AM Tr. at 30:8–31:8, 87:7–11; May 14 PM Tr. at 172:11–173:13, 174:15–175:2, 215:16–24; PX 10236 (Facebook H1 2022 Review) at 2; PX 12341 (Zuckerberg-Mosseri Email Exchange) at 2.

How people use Facebook and Instagram socially has changed, too. Users have become far less likely to post publicly and instead primarily share content using private messages, either in the app or over text. See May 8 AM Tr. at 65:20–22, 87:7–11, 118:13–22; May 14 PM Tr. at 217:24–218:18, 221:5–9; DX 606 (Instagram U.S. Teen Messaging Deck) at 4, 10–11; DX 585 (Facebook Board Meeting Deck on Messaging) at 3, 6; DX 517 (Mosseri Post on Meaningful Social Interactions) at 2; PX 708 (Mosseri Interview) at 10; DX 600 (Facebook U.S. Long-Term Themes Deck) at 5.

Put those changes together — a shift from feeds full of friends' posts to ones dominated by unconnected content, and a pivot from posting in a semi-public feed to sending content to a single friend or a group chat — and both scrolling and sharing have transformed. A decade ago, users who checked Facebook or Instagram would see a stock of updates broadcasted by their friends: a status update, a baby picture, a video posted on a friend's Facebook wall. When they wanted to share, they would post something to this ever-growing feed for all their friends to see. Now, they are more likely to open the app and scroll through AI-recommended content, then share by sending that content as a private message. See Apr. 14 PM Tr. at 167:22–168:6; Apr.

15 PM Tr. at 213:3–13; Apr. 16 AM Tr. at 53:20–54:5; Apr. 16 PM Tr. at 165:22–166:7; May 12 AM Tr. at 63:14–64:2.

Why did this happen? The tectonic transformation was the sum of six smaller shifts.

First, smartphone usage exploded. In 2011, only 35% of Americans owned a smartphone. See May 13 AM Tr. at 62:2–8. By 2024, 91% did. Id. As Americans increasingly relied on their phones, they increasingly kept up with their friends by texting, especially using group chats that let them keep up with many friends at once. Texting a medium-sized group of close friends, it turns out, was often more appealing than broadcasting updates to 1,000 acquaintances. See Apr. 14 PM Tr. at 171:14–22; Apr. 16 AM Tr. at 63:6–64:8, 103:9–13; May 12 AM Tr. at 49:3–9, 63:5–20; DX 606 (U.S. Teen Messaging Deck) at 4; DX 585 (Facebook Board Meeting Deck on Messaging) at 3. Smartphones thus helped Americans easily share with select groups of friends they cared about, which in turn made posting to a social-media feed less important.

Second, cellphone data got better. It got faster, so people could watch videos on their phones without bushwhacking through constant freezing and buffering. See Apr. 15 PM Tr. at 210:16–211:2; Apr. 16 PM Tr. at 274:16–275:1; Apr. 16 AM Tr. at 36:16–23. Data also got cheaper, making it feasible to watch videos anywhere instead of only when tethered to a Wi-Fi connection. See May 8 PM Tr. at 179:17–180:3; May 14 PM Tr. at 253:2–9. Meta CEO Mark Zuckerberg captured these years of progress and their effect on social media in a 2022 call with investors: "[V]ideo is really becoming the primary thing" because "mobile networks [have] gotten really good." PX 545 (Meta Investor Call) at 17; see also PX 708 (Mosseri Interview) at 11 ("When networks get faster, when data gets cheaper, people keep moving more and more to video.").

Third, the steady progress of cellular data was followed by a massive leap in AI. Advanced AI algorithms can now analyze your preferences, search through billions of pieces of content, and find engaging videos about the things you care most about in the world. As a result, when Facebook and Instagram want to serve a user the post that she is most interested in, they are not limited to posts from her friends or accounts she follows. See Apr. 15 PM Tr. at 214:14–215:10; May 15 AM Tr. at 6:19–7:12. Instead, they can sift through millions of videos and find the perfect one for her — and it is more likely to interest her than a humdrum update from a friend she knew in high school. See May 12 AM Tr. at 63:14–23; May 14 PM Tr. at 254:6–256:8

Fourth, as social networks have matured, the alternatives to AI-recommended content have become less appealing. When someone first signed up for Facebook, his friends on the app were his friends in real life. More than a decade later, his offline friends have changed, but his old Facebook friends are still there. See Apr. 16 AM Tr. at 49:2–50:8; May 14 at 222:23–223:13. Longtime users' friend lists have thus become an often-outdated archive of people they once knew: a casual friend from college, a long-ago friend from summer camp, some guy they met at a party once. Posts from friends have therefore grown less interesting. See PX 10034 (Apr. 2022 Meta Executives Email Thread) at 4 ("[A] lot of people's friend graphs are stale and not filled with the people they want to hear from or connect with.").

Put those four changes together — millions of Americans with a smartphone in hand, hooked up to a fast and cheap network that shows videos on demand, equipped with an algorithm that can find just the right one, and increasingly bored by their friends' posts — and the conditions were set for a social-media app that would show nothing but unconnected videos

recommended by an algorithm. That app was TikTok, see Apr. 29 PM Tr. at 194:4–16, and it was the fifth force pushing Facebook and Instagram to evolve.

TikTok launched in the United States in 2018. See Apr. 30 AM Tr. at 32:17–18. It soon put enormous competitive pressure on Meta. See, e.g., May 12 AM Tr. at 68:19–25, 70:5–17; DX 660 (IG Metric Softness Deck) at 6; DX 650 (May 2020 Raji Email) at 1; DX 663 (Meta Executive Chat Thread) at 1. To defend its business, Meta added Reels to Instagram in 2020, see Joint Stipulations of Fact, ¶ 34, and to Facebook in 2021, id., ¶ 20, copying TikTok to keep users on Meta's apps. See DX 922 (TikTok Project Blue Summ.) at 14 (Meta is "shifting to short-form video content and prioritizing . . . Reels" to prevent users from switching to TikTok); id. at 19 (Reels was "Meta's competitive response to TikTok, particularly around gaining back user timespent from young adults"); DX 1018 (Sep. 2020 Meta Board Meeting Deck) at 15; Apr. 29 PM Tr. at 193:13–194:5; May 12 AM Tr. at 70:8–17. These short unconnected videos recommended by AI then multiplied to dominate users' feeds. See DX 1153 (Jan. 2025 Instagram Surface Breakdown); DX 1152 (Jan. 2025 Facebook Surface Breakdown).

Finally, those five changes both caused and were reinforced by a change in social norms, which evolved to discourage public posting. People have increasingly become less interested in blasting out public posts that hundreds of others can see. See DX 522 (Instagram 2021 H2 Planning Primer) at 22; DX 572 (Long-Term Sharing Trends & Future Expectations Deck) at 14; May 12 AM Tr. at 51:5–52:5, 53:5–7, 102:1–103:11; PX 10034 (Apr. 2022 Meta Executives Email Thread) at 7; May 1 PM Tr. at 176:11–17; May 8 AM Tr. at 29:19–24; DX 606 (Instagram U.S. Teen Messaging Deck) at 10–11. Instead, they prefer to send messages to individual friends or to group chats. See DX 522 (Instagram 2021 H2 Planning Primer) at 21–22; DX 888 (Dec. 2021 Snapchat Board Meeting Update on Stories) at 3; Apr. 15 PM Tr. at 213:18–214:13;

Apr. 16 PM Tr. at 165:22–166:7; May 7 PM Tr. at 251:21–23; May 12 AM Tr. at 52:23–54:2; May 12 PM Tr. at 168:12–18; May 14 PM Tr. at 177:2–9.

That shift in norms has not only changed what people post; it has also limited what is there for them to see. Because Meta has fewer posts from friends to fill each user's feed, it must turn to unconnected content to fill the gap. See May 8 AM Tr. at 65:20–22; May 14 PM Tr. at 221:5–9; see also PX 3008 (Facebook Feed & Ecosystems Deck) at 40 ("Given the ongoing" fall in public posting, "we think increasing" the number of friend posts on users' feeds "is almost impossible . . . ."); PX 3631 (Instagram Insights) at 13 ("[T]he issue is related to inventory decline — how much potential content people have available to them. We are running out of [friends and family] inventory to show our users.").

Those six trends have transformed Facebook and Instagram into the apps that exist today, ones that primarily show users short unconnected videos recommended by algorithms. Both apps are pushing still further in that direction. In just the last two years, the share of time on Facebook that Americans spent viewing friends' content fell by almost a quarter; the share of time they spent watching Reels more than doubled. Compare DX 1169 (Jan. 2023 Facebook Surface Breakdown), with DX 1152 (Jan. 2025 Facebook Surface Breakdown). In the same period on Instagram, the share of time spent on friends' content fell by more than a third, while the share of time spent watching Reels more than tripled. Compare DX 1171 (Feb. 2023 Instagram Surface Breakdown), with DX 1153 (Jan. 2025 Instagram Surface Breakdown).

3. *Convergence*

Facebook, Instagram, TikTok, and YouTube have thus evolved to have nearly identical main features. See Apr. 16 AM Tr. at 21:3–22:1, 36:13–37:23. On all four, users spend most of their time watching videos. See DX 1147 (U.S. Share of Facebook Time Spent on Video); DX

1153 (Jan. 2025 Instagram Surface Breakdown); Apr. 30 AM Tr. at 53:21–54:7; Apr. 17 PM Tr. at 151:23–24. All four use algorithms to recommend those videos to users. See Apr. 16 AM Tr. at 21:3–9, 36:13–37:23; Apr. 17 PM Tr. at 173:3–7. And if someone finds content that she likes, all four apps let her tap a button to send it to friends — whether via a direct message on Facebook, Instagram, or TikTok, or using a text message. See Apr. 16 AM Tr. at 53:20–54:14.

The convergence is especially striking among Meta's Reels, TikTok's videos, and YouTube's Shorts. As TikTok told Australian regulators, "TikTok, Reels and [YouTube] Shorts are virtually — and deliberately — indistinguishable in function and user experience." DX 1088 (TikTok Resp. to Australian Regulators) at 3; accord V Pappas Deposition at 55:19–20 (Reels is copy of TikTok and "[t]he features are almost identical"); Eric Morrison Deposition at 85:16–19. Indeed, the same content creators often post the same videos to all four platforms, see Apr. 17 PM Tr. at 192:1–6, where those videos are shown in the same formats with the same options to like, comment, and share:

Instagram Reel
DDX 8.3

Facebook Reel
DDX 8.5

TikTok video
DDX 8.7

YouTube Short
DDX 8.8

The most-used part of Meta's apps is thus indistinguishable from the offerings on TikTok and YouTube.

As Meta has moved to showing TikTok-style videos, TikTok has moved to adding Meta-style features to share them with friends. TikTok encourages users to add their friends, including by importing their list of Facebook and Instagram friends and phone contacts, and uses those lists to recommend accounts for users to follow. See Apr. 30 AM Tr. at 57:21–58:5, 80:15–82:11. Users can also search for accounts and follow them, id. at 88:17–89:7, and they can use TikTok to send messages. Id. at 62:23–63:9, 88:9–13, 88:25–89:3. As Tom Alison, the Head of Facebook, wrote to employees: "[L]ast week . . . someone asked 'Are we chasing TikTok?' I like to flip this on its head and consider 'Is TikTok chasing Facebook?' . . . I see more and more social features every day." PX 10249 (Meta Discovery Engine Thread) at 3. Mosseri, the Head of Instagram, agreed: he testified that while Instagram has shifted to focus on unconnected video, TikTok has added social features, and "we have met in the middle, so to speak." May 8 AM Tr. at 112:19–113:2.

At the same time, the technological changes discussed above have made video apps more social. Watch a video on the desktop website www.youtube.com, and it takes several steps to share it with a friend. Watch it on the YouTube app, and you can text it to her with the tap of a button. See Apr 16 AM Tr. at 40:6–7; Apr. 17 PM Tr. at 189:21–190:4. Ditto for watching a TikTok video. See Apr. 30 AM Tr. at 62:23–63:9, 88:9–13, 88:25–89:3. The possibilities opened by technology, the responses by users, and the competitive choices of the apps have combined to push Facebook, Instagram, TikTok, and YouTube into similar social-media experiences.

B. Meta's Business Model

In terms of a business model, both Facebook and Instagram have always charged users the same amount: nothing. See Apr. 15 PM Tr. at 221:22–222:6, 227:24–228:1. Instead, Meta makes money by selling ads. See Joint Stipulations of Fact, ¶ 54; PX 715 (Meta 10-K) at 61. Companies like Meta measure the intensity of advertising on their apps by analyzing "ad load": the share of posts that are ads. See May 1 AM Tr. at 91:23–92:2.

Common sense tells us that users would prefer content to ads — *i.e.*, a lower ad load. While Meta witnesses insisted that ads are benign, see, e.g., Apr. 15 AM Tr. at 96:17–99:12, the record says otherwise. For instance, Facebook has run an experiment where it does not show ads to a small group of users; those users spend 7% more time on the platform. See PX 10295 (Meta Interrog. Resp.) at 15–16; May 13 AM Tr. at 50:23–51:11; May 20 AM Tr. at 36:18–23; see also May 8 AM Tr. at 66:1–5 (similar small but nonzero effect of withholding ads from some Instagram users). Meta's internal documents also universally reflect an awareness that users dislike ads. See PX 15112 (Feb. 2018 Meta Email Thread) at 5 (Facebook employee calling ads "'tax[]' on engagement"); id. at 7 (Zuckerberg: "replacing . . . organic content with . . . ads" would inflict "engagement hit[]"); PX 15129 (Meta Board Update) at 1 (Zuckerberg telling Meta's Board of Directors that ad load is "tax" and "headwind"); PX 12501 (May 2021 Meta Executives Email Thread) at 4; PX 15240 (2018 Instagram Executives Email Thread) at 1–3. One Instagram survey found that the top two user complaints were both about seeing too many ads. See PX 3778 (Instagram Voice of the Community Deck) at 6.

While users indeed prefer fewer ads, however, the preference is slight. Again, showing users no ads whatsoever gets them to spend only 7% more time on Facebook. See May 13 AM Tr. at 50:23–51:11; May 20 AM Tr. at 36:18–23. Even for teens and young adults — who are

especially sensitive to ads, see PX 12501 (May 2021 Meta Executives Email Thread) at 1, 3–4 — ads seem to impose a low cost. Meta estimated that reducing teens' ad load by 80% would get them to use Facebook only 3% more often, while cutting young adults' ad load in half would juice their Facebook sessions by only 1%. Id. at 4; see also May 1 PM Tr. at 165:2–166:3 (discussing this modest effect). As a Facebook analysis concluded, "Increasing ad load has a measurable . . . impact on engagement[,] . . . but the magnitude of change is very small." DX 342 (News Feed Ad Load Trajectory Deck) at 26; accord id. at 34.

In fact, people are not willing to pay much to avoid ads. European regulators require Meta to offer ad-free versions of its apps. See Apr. 15 PM Tr. at 168:6–14. Those versions cost €5.99 per month for the platforms' websites and €7.99 per month for the apps. Facebook and Instagram to Offer Subscription for No Ads in Europe, Meta (Nov. 12, 2024), https://perma.cc/6VXR-HRCY. Fewer than .01% of users have taken the offer. See May 1 PM Tr. at 163:22–164:13. This negligible willingness to pay to avoid Meta's ads is striking: the ad-free version of Netflix costs $17.99 per month, Plans and Pricing, Netflix, https://perma.cc/H5W6-F8F3, while ad-free Disney+ runs for $18.99 a month. Disney+ Plans and Prices, Disney+, https://help.disneyplus.com/article/disneyplus-price (accessed Nov. 14, 2025).

One reason why users seem to mind ads so little is that Meta works hard to make them unintrusive and engaging. For one, users can scroll past an ad on their feeds — unlike, say, an ad on Netflix. See Apr. 17 AM Tr. at 13:12–14:3; May 19 PM Tr. at 251:1–4. Meta also tries to ensure that its ads are interesting and relevant. After all, the better the ad, the more consumers will interact with it, thus enhancing Meta's bottom line. See May 1 PM Tr. at 154:21–155:2; May 20 AM Tr. at 32:23–33:5. Meta sells ads by auctioning off spots in a user's feed. See May

1 PM Tr. at 153:3–154:10. The price that it accepts in this auction depends in part on the quality of the ad: the more engaging the ad and the more relevant to this particular user, the less Meta will charge to show it. See Apr. 17 AM Tr. at 15:15–16:3; May 1 PM Tr. at 153:12–155:20. Relatedly, the more likely a user is to be interested in an ad, the more likely Meta is to show it to him. See May 1 PM Tr. at 153:12–155:14.

Meta tailors ad load to each user. See May 1 AM Tr. at 99:7–14; May 1 PM Tr. at 157:2–8; May 15 AM Tr. at 23:12–18. The company knows basic information about users: their demographics, how long they have been on Facebook or Instagram, how many friends or followers they have, how much they use the app. It also tracks how each user responds to ads — how often she clicks on them, whether they make her use the app less, and how large that effect is. See Apr. 17 AM Tr. at 15:3–5; May 12 PM Tr. at 220:10–17; PX 722 (Meta Privacy Policy) at 5. Meta uses that information to individually calibrate each user's ad load. See Apr. 15 AM Tr. at 98:7–11, 99:4–6; Apr. 17 AM Tr. at 24:4–10; May 1 AM Tr. at 99:15–100:15; May 1 PM Tr. at 157:2–8, 160:7–19; May 12 PM Tr. at 220:21–221:9; May 13 AM Tr. at 18:13–21, 19:2–20:13, 21:4–24; May 14 PM Tr. at 185:25–186:5; May 15 AM Tr. at 23:12–24:3; PX 10295 (Meta Interrog. Resp.) at 11, 15–16; DX 1202 (Facebook Ad Load by Age).

This business model — give people a compelling product for free, then sell ads that can be seen by millions — has been amazingly successful. Facebook has grown from a handful of college campuses to 240 million active American users. See May 8 PM Tr. at 187:1–10. Meanwhile, Meta's advertising revenue has swelled from $80 million in 2009 to $161 billion last year. See Plaintiff's Demonstrative (PDX) 90 (Hemphill Demonstrative) at 209.

C. Procedural History

On now to the history of what brings us here. Facebook bought Instagram in 2012 and WhatsApp in 2014. See Joint Stipulations of Fact, ¶¶ 58–61. The FTC approved both acquisitions at the time. Id., ¶¶ 41–49; FTC v. Meta Platforms, Inc., 775 F. Supp. 3d 16, 30 (D.D.C. 2024). Years later, it changed its mind. At the end of 2020, it filed this suit alleging that there exists a distinct market for "personal social networking" services in the Unted States, see ECF No. 3 (Redacted Compl.), ¶¶ 51–60, that Meta has held a monopoly in this market since 2011, id., ¶ 170, and that Meta maintained that monopoly power by (among other acts) buying Instagram and WhatsApp to squash their competitive threats. Id., ¶¶ 71–73. The agency claimed that Meta thereby violated Section 2 of the Sherman Act, which forbids monopolization. Id. ¶¶ 171–74; 15 U.S.C. § 2.

This Court dismissed the initial Complaint. FTC v. Facebook, Inc., 560 F. Supp. 3d 1, 32 (D.D.C. 2021). It expressed doubts about the boundaries of any purported market for personal social networking, which depends on the porous borders of several apps that offer a changing mix of free services, some of which involve connecting with friends and others of which do not. Id. at 4. Still, the FTC had alleged enough about the market to survive a motion to dismiss. Id. at 16–17. But it had merely rattled off a conclusory assertion that Facebook held a monopoly in that market, so the Court held that the agency had not plausibly stated a claim. Id. at 4.

The FTC tried again with a beefed-up Amended Complaint, once again alleging that Meta holds a monopoly in personal social networking and unlawfully maintained that monopoly by buying Instagram and WhatsApp to eliminate them as competitive threats. See ECF No. 82 (Redacted Am. Compl.), ¶¶ 17–18, 231–35. This time, the Court held that the FTC had plausibly alleged that Facebook held monopoly power and that its acquisitions of Instagram and

WhatsApp constituted monopolization. FTC v. Facebook, Inc., 581 F. Supp. 3d 34, 40 (D.D.C. 2022). It therefore let this count proceed, albeit with a warning that "the agency may well face a tall task down the road in proving its allegations." Id.

After extensive discovery, the parties each moved for summary judgment. See ECF Nos. 324 (Meta MSJ); 327 (FTC MSJ). The Court largely denied both motions, holding that the FTC had met "the forgiving summary-judgment standard" but warning that it "face[d] hard questions about whether its claims c[ould] hold up in the crucible of trial." Meta, 775 F. Supp. 3d at 26.

The Court held that bench trial this spring. It heard testimony that stretched for more than six weeks, considered thousands of documents, and has now received both parties' post-trial submissions. This Opinion constitutes the Court's verdict and thus incorporates its findings of fact and conclusions of law.

The Court decides only what product market Meta competes in and whether Defendant holds monopoly power in that market. Both are primarily factual questions. Twin City Sportservice, Inc. v. Charles O. Finley & Co., 676 F.2d 1291, 1300 (9th Cir. 1982), United States v. Microsoft Corp., 253 F.3d 34, 52 (D.C. Cir. 2001) (*en banc*); Geneva Pharms. Tech. Corp. v. Barr Lab'ys Inc., 386 F.3d 485, 502 (2d Cir. 2004); Mid-Tex. Commc'ns Sys., Inc. v. AT&T Co., 615 F.2d 1372, 1387 (5th Cir. 1980). While the Court explicitly discusses the credibility of only one witness, its findings are inevitably informed by how credible it found each witness's testimony. Findings of fact and determinations of credibility are thus inextricably woven into the analysis that follows, which makes and applies legal holdings as needed.

II. Analysis

Section 2 of the Sherman Act prohibits monopolization, an offense whose relevant elements here require (1) holding monopoly power and (2) maintaining it through means other

than competition on the merits. Monopoly power is power over some market, so courts usually start a monopolization case by defining that market's boundaries. In doing so, the Court first sets out some threshold legal basics, then devotes the bulk of the Opinion to defining the market in which Facebook and Instagram compete. It last weighs whether Meta commands a monopoly.

A. Monopolization

Section 2 of the Sherman Act forbids monopolizing trade. See 15 U.S.C. § 2. But just because a firm holds a monopoly does not mean that it has committed the offense of monopolization. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004). Instead, monopolization requires (1) holding monopoly power in some market and (2) acquiring or maintaining that power through anticompetitive conduct — that is, through means other than outcompeting one's rivals. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966). The Court decides this case on the first element alone.

A firm commands monopoly power if it could maximize its profit by charging a price substantially above what would prevail in a competitive market. Microsoft, 253 F.3d at 51; see generally IIB Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law, ¶ 501 (5th ed. 2021). Plaintiffs can prove monopoly power either directly or indirectly. Direct proof is usually straightforward: typically, evidence that the firm in fact is charging significantly more than the competitive price. Microsoft, 253 F.3d at 51. While such red-handed proof is analytically simple, it is rare. Id. Instead, Plaintiffs typically prove monopoly power indirectly — by showing that a firm has a dominant share of a market that is protected by barriers to entry. Id.

B. Timing

Before turning to the methods of proof, one more preliminary remains: when must the FTC show that Meta had monopoly power? Throughout this case, the Court has held that the

agency must prove that Meta is violating the law now. See ECF Nos. 503 (Order Den. FTC Mot. to Exclude); 610 (Order Overruling FTC Obj.) at 1. In its post-trial brief, the FTC nonetheless tries another angle, arguing that if Meta broke the law in the past and this violation is still harming competition, then the agency may seek an injunction to redress the lingering harm. See FTC Post-trial Mem. at 5–6.

That might be a sensible statutory scheme, but it is not the one that Congress passed. The FTC's authority to seek injunctions comes from Section 13(b) of the FTC Act: "Whenever the Commission has reason to believe that any . . . corporation is violating, or is about to violate, any provision of law enforced by the Federal Trade Commission" — including the antitrust laws — then "the Commission . . . may bring suit in a district court of the United States to enjoin any such act or practice." 15 U.S.C. § 53(b) (emphasis added). As courts have emphasized, "Section 13(b) serves a . . . forward-facing role: enjoining ongoing and imminent future violations." FTC v. Credit Bureau Ctr., LLC, 937 F.3d 764, 774 (7th Cir. 2019); see also AMG Cap. Mgmt., LLC v. FTC, 593 U.S. 67, 76 (2021) (Section 13(b) "focuses upon relief that is prospective, not retrospective"); FTC v. Evans Prods. Co., 775 F.2d 1084, 1087 (9th Cir. 1985) (Section 13(b) "cannot be used to remedy past violations"). The FTC can therefore seek to enjoin only conduct that currently violates the law or imminently will.

To win the permanent injunction that it seeks here, the FTC must prove a current or imminent legal violation. While Section 13(b) is always forward facing, the burden it sets for the agency rises as a case progresses. To have a cause of action, the FTC needs only "reason to believe" that a defendant is currently breaking the law or is about to. See 15 U.S.C. § 53(b). To secure a preliminary injunction, it must make a "proper showing." Id. And to win a permanent

injunction, the relevant standard here, the FTC must provide "proper proof" — that is, proof that the "act or practice" that it seeks to enjoin is an ongoing or imminent violation of the law. Id.

What does that mean for this case? Recall that Meta is violating Section 2 only if it (1) has monopoly power and (2) is maintaining that power through anticompetitive conduct. Grinnell, 384 U.S. at 570–71. As both elements must be met, the FTC must prove that Meta has monopoly power now. FTC v. Surescripts, LLC, 665 F. Supp. 3d 14, 38–39 (D.D.C. 2023) (reaching same result); cf. United States v. U.S. Steel Corp., 251 U.S. 417, 444 (1920) (holding, in antitrust case brought under different statute, that "our consideration should be of, not what the corporation had power to do or did, but what it has now power to do and is doing").

The Court now turns to whether the FTC has made that showing. At trial, the agency offered direct and indirect evidence, which the Court looks at separately.

C. Direct Evidence

The FTC claims that three pieces of evidence prove Meta's monopoly power: the company's lavish profits, the jacking up of its apps' quality-adjusted price, and price discrimination. The Court addresses them one by one.

1. *Profits*

The FTC first argues that Meta must hold a monopoly because it has long earned profits that exceed its cost of capital. See FTC Post-trial Mem. at 9. Persistent profits above the cost of capital may indeed suggest monopoly power. Town Sound & Custom Tops, Inc. v. Chrysler Motors Corp., 959 F.2d 468, 481 n.17 (3d Cir. 1992) (*en banc*); FTC v. Actavis, Inc., 570 U.S. 136, 157 (2013). But they can also imply any of the other reasons why one firm is more profitable than its rivals: shrewd management, exceptional efficiency, booming demand, or risky investments that hit big. Blue Cross & Blue Shield United of Wis. v. Marshfield Clinic, 65 F.3d

1406, 1412 (7th Cir. 1995); Bailey v. Allgas, Inc., 284 F.3d 1237, 1252 (11th Cir. 2002). As Chief Judge Richard Posner has written for the Seventh Circuit, "[I]t is always treacherous to try to infer monopoly power from a high rate of return[;] . . . there is not even a good economic theory that associates monopoly power with a high rate of return." Blue Cross, 65 F.3d at 1412. Unsurprisingly, then, "[m]any courts have disparaged the evidentiary value of high profits to indicate monopoly power." Apple Inc. v. Psystar Corp., 673 F. Supp. 2d 926, 931 (N.D. Cal. 2009).

The record here is a case study in why. It reveals several other factors that could be driving Meta's handsome profits, none of which the FTC has foreclosed. For instance, Defendant has developed impressive technology that helps advertisers create engaging ads and target them to exactly the right users. See May 19 PM Tr. at 249:23–255:19; May 20 AM Tr. at 20:16–22:18, 23:22–24:3; see also May 1 PM Tr. at 177:13–20 ("vast majority" of Meta's projected revenue growth is from making ads more relevant). Its superb returns, then, might come from an enticing appeal to the advertisers who pay it billions, not from a tight grip on the users who pay it nothing. Cf. Ohio v. Am. Express Co., 585 U.S. 529, 544–47 (2018) (when analyzing platforms with two sides, courts must consider both). Alternatively, Meta's high returns could be the appropriate reward for risky investments that paid off. It has, for example, plowed enormous sums of money into research and development. See May 21 AM Tr. at 159:20–160:3. When those investments pan out, any lavish profit is not a monopoly rent but instead the appropriate reward for a roll of the dice. Or the company could simply be exceptionally well managed.

The FTC's experts did not assess whether any of these alternatives could be responsible for Meta's high profits. See May 14 AM Tr. at 69:4–23, 77:15–18. The agency bears the burden

of proving that Meta is a monopoly, Microsoft, 253 F.3d at 58, yet the mere fact of high profits could show any number of alternatives, none of which the FTC rebutted.

The agency did not even show that Meta's profits are greater than other successful tech firms'. The Supreme Court has refused to infer monopoly power from high profits "without proof of lack of comparable profits during those years in other prosperous industries." United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 404 (1956). The FTC offered no such proof here. See Apr. 24 AM Tr. at 20:16–18; May 14 AM Tr. at 86:5–20. The Court struggles to conclude that Meta's profits are suspiciously high when the FTC has not even proven that they are unusual.

Finally, the FTC's story about monopoly profits does not fit its own account of Meta's business. The agency thinks that Meta (1) holds a monopoly in sharing with friends (think of posting a picture to Instagram's feed), (2) faces far stiffer competition to show unconnected videos (think of the choice between watching an Instagram Reel or an indistinguishable TikTok video), and (3) has exploited its monopoly in friend sharing to extract monopoly profits. If that account were right, then as Meta's business has shifted away from friend sharing and toward unconnected video, it should be losing its monopoly profits. Yet the opposite has happened: as Meta's apps have become closer substitutes for TikTok and YouTube, the company's projected rate of return has only increased. See Apr. 24 AM Tr. at 15:23–16:13; Apr. 17 AM Tr. at 25:20–24. When Meta's supposed monopoly is falling while its alleged monopoly profits are rising, it seems unlikely that the former is driving the latter.

2. *Quality-Adjusted Price*

Next, the FTC maintains that Meta has profitably raised the quality-adjusted price of its apps. See FTC Post-trial Mem. at 9–12. It must resort to this unintuitive argument because Meta

has never raised its apps' nominal price: Facebook and Instagram are free, just as they always have been. See Apr. 15 PM Tr. at 221:22–23. So the FTC instead argues that Meta has degraded these apps' quality. By offering a worse product for the same price, the agency reasons, Meta has imposed the equivalent of a price increase.

The record, however, shows the opposite: Meta's apps have continuously improved. The company has added scores of new features to Facebook and Instagram, from Stories to Reels to Marketplace. See DX 1180 (New Instagram Features); DX 1182 (New Facebook Features); DX 1207 (New Facebook Features, 2023–25); DX 1208 (New Instagram Features, 2023–25); May 14 AM Tr. at 42:9–23; May 21 PM Tr. at 158:16–24. It also spends billions on research and development to offer further improvements. See Apr. 15 PM Tr. at 230:13–231:23. The Court simply does not find it credible that users would prefer the Facebook and Instagram apps that existed ten years ago to the versions that exist today. Id. at 228:5–21 ("If you took a freeze frame of where our app used to be and that was the experience that [users] could have today, we would just be crushed.").

Still, for completeness, the Court will address the FTC's three arguments to the contrary: that Meta has degraded its apps' quality by increasing their ad load, that falling user sentiment shows that the apps have deteriorated, and that Meta has sabotaged its apps by underinvesting in friend sharing.

a. Ad Load

The agency first points out that Meta has steadily increased the ad load on Facebook and Instagram. See FTC Post-trial Mem. at 10; May 13 AM Tr. at 10:22–12:8. Since users dislike ads, Plaintiff reasons, the increase in ad load is equivalent to an increase in quality-adjusted price. See FTC Post-trial Mem. at 10. That position has two problems. For one, ads are only

one aspect of an app's quality. See May 14 AM Tr. at 41:3–6, 41:17–42:8, 49:24–50:2. When Meta has stuffed its apps with more ads and upgraded them with new features, it is not clear that the company has reduced quality overall.

More importantly, even considering just this one input into app quality, the effect of ads on users' experience depends on not only their number but also on their quality and relevance. See Apr. 15 AM Tr. at 96:22–25; Apr. 17 AM Tr. at 20:12–21:15; May 20 AM Tr. at 17:20–19:11, 30:5–17, 31:6–16. An ad that is attractive, engaging, unobtrusive, and shows a user something that he wants imposes a much lower cost than an ad that is unsightly, disruptive, and irrelevant. The Court therefore cannot say whether increases in the number of ads have degraded Facebook and Instagram without accounting for changes in those ads' quality.

All the evidence, in fact, shows that their quality has increased. For one, Meta generally does not increase ad load until its ads have improved — that way, the company can sell more ads without pushing users away from its apps. See DX 342 (News Feed Ad Load Trajectory Deck) at 7 ("[W]e will . . . [o]nly increase ad load when . . . ad quality is increasing."); Apr. 17 AM Tr. at 23:20-24:3; May 8 AM Tr. at 60:7–14; see also May 20 AM Tr. at 30:18–31:5, 31:17–32:4.

That rule makes cold economic sense. If Meta could profitably have imposed today's higher ad load years ago, it would have. Instead, the company was likely already freighting users with the highest ad load that they would tolerate. See CF Indus., Inc. v. Surface Transp. Bd., 255 F.3d 816, 824 (D.C. Cir. 2001) ("Koch is a for-profit institution, not an eleemosynary one, and it has provided no reason to believe that it priced below market for eight years, rather than calculated that those prices were the most the market would bear."); see also May 13 AM Tr. at 9:16–10:13 (describing this tradeoff for Meta). The only way that Meta could profitably

increase ad load from that already-profit-maximizing optimum, then, would be if the ads themselves had become less costly — that is, if their quality had improved.

What economic logic suggests direct evidence confirms. The rate at which users buy something or subscribe to a service based on Meta's ads has steadily risen, suggesting that the ads have gotten more and more likely to connect users to products in which they have an interest. See May 1 PM Tr .at 177:24–179:16; DDX 18.3 (Ad Conversion Rate).

If we assume that the quality-adjusted price of Meta's apps several years ago represented the competitive price, then Meta's subsequent increase in ad load suggests one of two things. It might show that Meta raised the quality-adjusted price above competitive levels, revealing monopoly power. It might equally show that as the quality of Meta's ads has increased and the apps' features have improved, the company increased ad load to hold the quality-adjusted price of its apps at the same, competitive level. All evidence points toward the latter.

b. Sentiment

Next, the FTC posits that falling user sentiment shows that the "overall quality of Facebook and Instagram ha[s] declined." FTC Post-trial Mem. at 11. Meta regularly surveys users on whether they think that Facebook and Instagram care about their users, whether they think these apps are good for the world, and how satisfied they are with the apps. See Apr. 30 PM Tr. at 197:7–199:18. The FTC (1) notes that the scores users give Meta have fallen over the years, (2) claims that "user sentiment measures [the] overall quality of Facebook and Instagram," and so (3) concludes that Facebook and Instagram have deteriorated. See FTC Post-trial Mem. at 11.

While the argument's first premise is true, the second is emphatically not. Nobody knows more about these surveys than Curtis Cobb, Meta's Vice President of Research, head of

the company's Demography and Survey Science group, and administrator of these surveys. See Apr. 30 PM Tr. at 193:1–11, 197:1–4. He explained that sentiment scores primarily measure "brand reputation," not product quality. Id. at 197:7–14; accord May 1 AM Tr. at 28:1–4. Meta's ordinary-course documents back him up: a 2020 deck calls these surveys measures of "our brand's standing." PX 3013 (Relative Metrics Update) at 6.

As Cobb and other executives testified, sentiment mostly reflects the tone of news coverage about the company, not the quality of its products. See May 1 AM Tr. at 30:5–19, 69:21–70:10; Apr. 29 PM Tr. at 158:7–10; May 8 PM Tr. at 267:2–6. For instance, sentiment increased when Zuckerberg announced that he would give much of his wealth to charity. See May 1 AM Tr. at 32:4–12. And it moves around when Meta makes controversial decisions. Sentiment fell after Facebook blocked posts about anti-lockdown protests at the height of COVID, as well as when the company left up Donald Trump's posts criticizing Black Lives Matter protests. See PX 15475 (Weekly Sentiment Update) at 7; May 1 AM Tr. at 31:16–22. None of those events reflects a change in the apps' quality. Plus, sentiment varies widely across countries — where the apps are identical, but the news cycles differ. See May 8 PM Tr. at 269:5–24; DDX 24.1 (Relative Cares About Users Scores by Country).

Unsurprisingly, then, Meta does not put much weight on these surveys to measure quality. See May 1 AM Tr. at 49:19–51:18. One Meta study "fail[ed] to detect significant and consistent effects of sentiment" on how often users posted, commented, or liked content, nor on how much advertising revenue Meta earned. See PX 12968 (Does Sentiment Towards Facebook Affect Revenue and Engagement?) at 4, 7. Meta has also found that sentiment surveys are poor predictors of user behavior. See May 1 AM Tr. at 26:5–17; Apr. 29 PM Tr. at 163:23–164:4.

To be sure, these surveys detect some reactions to Meta's products, see Apr. 30 PM Tr. at 197:7–18; May 1 AM Tr. at 69:12–70:10, 71:13–72:6, 73:13–74:6, and many negative news stories are about problems with Meta's apps. For instance, the Cambridge Analytica scandal revealed genuine problems with Facebook's privacy protections, see Apr. 29 PM Tr. at 157:16–158:1, and it inflicted the biggest sentiment decline in the company's history. See PX 12110 (Cambridge Analytica Sentiment Effects Deck) at 4; PX 12968 (Does Sentiment Towards Facebook Affect Revenue and Engagement?) at 6.

At bottom, however, the testimony of the people who know these surveys best, Meta's own internal analysis, and user sentiment's response to external events convince the Court that any signal is drowned in noise. That is unsurprising: ask people how they feel about, say, Exxon Mobil, and their answers will tell you very little about how good its oil is. The FTC's claim that worsening sentiment shows a worsening product is unpersuasive.

The agency also tries to turn all this to its advantage: the very fact that users report greater dissatisfaction with Meta but do not use its apps less shows that they have nowhere else to turn. See FTC Post-trial Findings of Fact, ¶¶ 165–66. On the contrary, as discussed below, users have several alternatives that they have been turning to in droves. The better interpretation is that sentiment surveys primarily measure what people think of Meta's business as seen through the lens of salient news stories, not what users think of its apps.

c. Underinvestment in Friends and Family

The FTC last claims that Meta has worsened its apps by underinvesting in the content that users value most: updates from friends and family. See FTC Post-trial Mem. at 11, 32; May 13 AM Tr. at 22:16–24:13. According to the agency, users consistently report that they want to

see more content from their friends, but Meta — insouciant in its monopoly power — has chosen not to listen. See FTC Post-trial Findings of Fact, ¶¶ 341–43.

While the Court acknowledges the FTC's thoughtful briefing and diligent trial presentation, this theory makes no sense. First, the evidence contradicts it. While it is true that users see less content from their friends these days, that is largely due to the friends themselves: people simply post less. See May 8 AM Tr. at 65:20–22; May 14 PM Tr. at 221:5–9. An internal Instagram presentation concluded that it was "[u]nlikely" that the dwindling share of friend content in users' feeds was because of Instagram's ranking algorithm. See PX 3631 (Instagram Insights) at 13. Instead, "the issue is related to inventory decline — how much potential content people have available to them. We are running out of [friends and family] inventory to show our users." Id.; see also id. at 14–15. Another Meta deck lamented, "Given the ongoing" fall in public posting, "we think increasing" friend posts "is almost impossible." PX 3008 (Facebook Feed & Ecosystems Deck) at 40. Users are not seeing less friend content because Meta is hiding it from them, but instead because there is less friend content for Meta to show.

Nor is it clear that users want more friend posts. True, they report on surveys that they do. See PX 3785 (Lorax 2.0: Top User Issues Deck) at 9; May 13 AM Tr. at 100:18–101:1; May 27 AM Tr. at 61:4–9; May 14 PM Tr. at 166:11–169:9. But their actions tell a different story. See Apr. 14 PM Tr. at 167:11–168:9, 169:7–24, 189:1–190:1; May 1 AM Tr. at 52:15–53:17; cf. United States v. Eastman Kodak Co., 63 F.3d 95, 104–05 (2d Cir. 1995) ("[W]hile many consumers state a preference for the familiar Kodak brand name, the empirical evidence of what consumers actually do indicates that consumers find non-Kodak film to be an acceptable substitute.").

Facebook tried boosting the amount of friend content in some users' feeds by 20% and decreasing it in others' by 20%. See May 14 PM Tr. at 249:21–250:10; PX 3008 (Facebook Feed & Ecosystems Deck) at 49. In both cases, time spent on Facebook was virtually unchanged. See DX 1168 (Facebook Feed Composition Experiment Result); PX 3008 (Facebook Feed & Ecosystems Deck) at 49. Instead, what users really seem to want is Reels. Meta measured the effect of Reels by rolling them out to most Instagram users, withholding them from a control group, and comparing how much each group used the app. See May 8 PM Tr. at 190:9–192:13. The effect was astonishing: users with Reels spent almost 50% more time on Instagram, opened the app more than 10% more, and were about 5% less likely to stop using it. Id. at 193:5–195:17. As Mosseri, the Head of Instagram testified, "It's insane. . . . [N]othing I can think of ever moved time by 48 percent, or anything even close to it. . . . [T]his is the most successful series of features as measured by a holdout in my 17 years at the company." Id. at 195:2–8. An equivalent experiment on Facebook found similar results. See May 14 PM Tr. at 259:20–260:5. Remember that Reels is not content from friends. See DX 1153 (Jan. 2025 Instagram Surface Breakdown). So whatever users might say they desire, what seems to draw them to Meta's apps is not marginal posts from marginal friends, but unconnected videos picked just for them. Meta's shift to the latter does not reveal monopoly power so much as a profit-maximizing corporation giving its customers what they want.

Indeed, the FTC's theory defies common sense. Meta's goal is to get users to spend as much time on its apps as possible, and it tunes its algorithms to show users the content they most want to see. See May 12 PM Tr. at 192:3–23; May 14 PM Tr. at 249:21–250:10. It has no reason to deliberately suppress content that will bring users in the door and put forward content that will push them out.

It would be especially irrational to force Reels on unwilling viewers because Reels earns Meta less money. Meta has a lower ad load on Reels, and the company and its rivals understand that the shift to Reels is costing Meta revenue in the short term. See DX 663 (Meta Executive Chat Thread) at 1; DX 922 (TikTok Project Blue Summ.) at 14; May 8 PM Tr. at 162:19–163:20; May 12 AM Tr. at 70:8–17. So does the FTC: its theory of this case is that Meta burdens friend content with ads because it enjoys a monopoly but can show fewer ads on Reels because it faces competition in short videos. See FTC Post-trial Mem. at 22, 33; FTC Post-trial Findings of Fact, ¶¶ 155, 169; May 12 PM Tr. at 214:6–12; May 13 AM Tr. at 17:3–11; May 27 AM Tr. at 45:5–18. Yet it now asks the Court to believe that Meta is gratuitously forgoing monopoly profits by pushing users away from its most popular and profitable offering to one that is both less appealing and less profitable.

Courts presume that sophisticated corporations act rationally. Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, 587, 594 n.19, 595 (1986); Chase Mfg., Inc. v. Johns Manville Corp., 84 F.4th 1157, 1168 (10th Cir. 2023). So "if the factual context renders [a] claim implausible — if the claim is one that simply makes no economic sense — [the party] must come forward with more persuasive evidence to support [its] claim than would otherwise be necessary." Matsushita, 475 U.S. at 587. Here, the FTC has not offered even an ordinarily persuasive case that Meta is making the economically irrational choice to underinvest in its most lucrative offerings. It certainly has not made a particularly persuasive one.

* * * * *

In the end, the Court finds it impossible to believe that consumers would prefer the versions of Instagram and Facebook that existed a decade ago to the versions that exist today. That leaves open the possibility that while Meta's apps have improved, they are still worse than

they would be if Meta faced more competition. Direct proof that a product is worse than some unknown counterfactual is elusive, however. Instead, this argument is best considered as the harm that would follow if Meta were indeed a monopoly. But the FTC must first prove that the company is one. Up to this point, it has not.

3. *Price Discrimination*

Last, the agency asserts that Meta charges a higher quality-adjusted price to a subset of users by showing them more ads. See FTC Post-trial Mem. at 12. That is mostly true: Meta shows more ads to the users who it predicts will respond by cutting their usage of Facebook and Instagram less. See, e.g., May 1 AM Tr. at 99:15–100:15; May 12 PM Tr. at 220:21–221:9; May 14 PM Tr. at 185:25–186:5; May 15 AM Tr. at 23:12–24:3.

That also does not prove monopoly power. Instead, price discrimination reveals only what economists call market power — the power to price a good above marginal cost. See Lars A. Stole, Price Discrimination and Competition, 3 Handbook of Indus. Org. 2221, 2224 (2007). In the real world, almost every business enjoys some degree of market power, which is a far lower bar than monopoly power. See Richard Schmalensee, Another Look at Market Power, 95 Harv. L. Rev. 1789, 1790 (1982); Areeda & Hovenkamp, ¶ 501, at 115–16 ("Market power exists in degrees," which often fall below monopoly power.). True, courts often confusingly call monopoly power "market power," but different concepts they remain. Price discrimination shows only that a firm is not the undifferentiated fiction earning zero profits that scarcely exists outside the pages of an Econ 101 textbook. It does not prove that the market is monopolized.

That must be true, since "price discrimination is a ubiquitous phenomenon." Hal R. Varian, Price Discrimination, 1 Handbook of Indus. Org. 597, 646 (1989). You will find it in every movie theater offering a student discount, every drug store offering a senior discount, and

every airline charging higher prices to travelers who book at the last minute. Id. at 641. When price discrimination prevails in just about every market, it cannot reliably distinguish the few markets in the grips of a monopoly from the many more markets where the competitive price exceeds marginal cost. The Supreme Court agrees: "[W]hile price discrimination may provide evidence of market power, . . . it is generally recognized that it also occurs in fully competitive markets." Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 44–45 (2006).

D. Indirect Evidence

Having found no direct proof that Meta holds monopoly power, the Court now turns to indirect evidence. The FTC here must show that Meta holds a dominant share of the market that is protected by barriers to entry. Microsoft, 253 F.3d at 51.

The Court must therefore first define what market Facebook and Instagram compete in. A market involves a product market and a geographic market — say, midsize sedans in the United States or segway tours in Washington, D.C. Sky Angel U.S., LLC v. Nat'l Cable Satellite Corp., 947 F. Supp. 2d 88, 102 (D.D.C. 2013). In this case, both sides agree that the relevant geographic market is the United States. Meta, 775 F. Supp. 3d at 35 (noting agreement on this point at summary judgment); FTC Post-trial Mem. at 6 (FTC maintaining that position in post-trial briefing); ECF No. 626-1 (Meta Post-trial Mem.) at 12 (same for Meta). What they fight over are the bounds of the relevant product market.

According to the FTC, Meta competes in a separate market for PSN apps, which people use to keep up with their friends and family. See ECF No. 623-1 (FTC Post-trial Findings of Fact), ¶ 7; FTC Post-trial Mem. at 6–7. The agency insists that this market contains only four apps: Facebook, Instagram, Snapchat, and a less-used option called MeWe. See FTC Post-trial Findings of Fact, ¶¶ 33, 40. Apps like TikTok and YouTube, by contrast, are used for

entertainment. Id., ¶¶ 58–59, 73. So, the FTC insists, they do not offer a substitute for Facebook and Instagram. Id., ¶ 14.

Meta rejoins that that is a hypothesis that must be tested against the evidence. According to the company, people mostly use Facebook and Instagram to watch unconnected videos, just like they use TikTok and YouTube. See Meta Post-trial Mem. at 1. Turning to consumer behavior, Meta maintains that all the empirical evidence shows that consumers treat other apps — especially TikTok and YouTube — as substitutes for Facebook and Instagram. Id. at 14–15. The FTC might have drawn up some theories that sound plausible in the abstract and might even have been true in years gone by, but Defendant says that they do not match today's reality.

Having introduced these dueling accounts, the Court now lays out the legal framework against which it will test them. A product market is the set of all alternatives that are "reasonably interchangeable by consumers for the same purposes." Du Pont, 351 U.S. at 395. An alternative need not be identical to be reasonably interchangeable. Id. at 394. On the other hand, a vast spectrum of goods can serve as substitutes to some extent, "[b]ut a relevant market cannot meaningfully encompass that infinite range." Times-Picayune Publ'g Co. v. United States, 345 U.S. 594, 612 n.31 (1953); see also United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 54 (D.D.C. 2011) (just because products "may compete at some level" does not mean they belong in same product market). Indeed, judges could find differences between just about every product in earth: Coca-Cola differs from root beer, which differs from Sprite, which differs from milk. How should courts draw conclusions about reasonable interchangeability?

The leading way is the hypothetical-monopolist test. E.g., FTC v. Penn State Hershey Med. Ctr., 838 F.3d 327, 338 (3d Cir. 2016). The HMT defines a product market as the smallest set of products such that if a hypothetical monopolist controlled them all, then it would maximize

its profits by raising prices significantly above competitive levels. See Areeda & Hovenkamp, ¶ 536, at 322–25. More precisely, courts ask whether the hypothetical monopolist would profitably impose a small but significant and nontransitory increase in price (SSNIP). E.g., Penn State Hershey Med. Ctr., 838 F.3d at 338. While the threshold needed for a "small but significant" price increase might vary, a common number is 5%. See U.S. Dep't of Just. & Fed. Trade Comm'n, Merger Guidelines 43 (2023); Penn State Hershey Med. Ctr., 838 F.3d at 338 n.1; FTC v. Sysco Corp., 113 F. Supp. 3d 1, 34 (D.D.C. 2015).

To see how the HMT works in practice, suppose that a single firm controlled the entire production of pencils. If that hypothetical monopolist could maximize its profits by charging a price about 5% higher than the competitive level, then pencils would be a market in themselves. But if that price hike would be unprofitable because too many consumers would switch to pens, then pencils and pens would belong in the same market.

What if the products are free, like Facebook and Instagram? Courts can update the hoary HMT for the digital age by asking whether a hypothetical monopolist would impose a small but significant and nontransitory increase in the apps' quality-adjusted price — basically, whether it would make them significantly worse than they would be in a competitive market (say, by bloating them with ads). See Merger Guidelines at 41–42. Of course, the answer is unobservable (by definition, it is hypothetical). But the HMT at least tells the Court what question to ask: would a firm that controlled both Facebook and Instagram maximize its profit by making them about 5% worse than they would be under competitive conditions? If it would not because, say, too many users would substitute time on Instagram for time on TikTok, then TikTok belongs in the product market.

Note that this test does not focus on whether items have abstract qualitative differences but instead on the reality of what consumers would do. After all, whether a hypothetical monopolist could profitably raise prices — and therefore where the product market's borders lie — depends on which alternatives consumers would turn to and how readily they would do so, not on how different the products seem to a judge. Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 218 (D.C. Cir. 1986) (Bork, J.).

Consider United States v. Continental Can Co., 378 U.S. 441 (1964), where the Supreme Court decided whether metal cans and glass containers belonged in the same product market. Id. at 456. The Court could have noted all the qualitative differences between glass and metal — their different transparencies, tensile strengths, and weights — and held that they therefore must occupy different markets. Instead, the Court looked to real-world evidence of whether users treated the two as substitutes. Id. at 456–57. They did, so the Court held that these superficially different products belonged in the same market. Id. In general, the Supreme Court has warned against any rule that would make "only physically identical products . . . part of the market." Du Pont, 351 U.S. at 394; accord Cont'l Can, 378 U.S. at 452. Instead, courts must "recognize competition where, in fact, competition exists." Brown Shoe Co. v. United States, 370 U.S. 294, 326 (1962); see also Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 467 (1992) (courts must "examine[] closely the economic reality of the market at issue"). Of course, real-world substitution evidence is sometimes unreliable. And qualitative differences between products can serve as useful "evidentiary proxies for direct proof of substitutability." Rothery, 792 F.2d at 218. But the touchstone of market definition remains how consumers would respond to a price increase.

The Court makes one last preliminary point. The HMT does not ask whether consumers would stop buying a product entirely. Instead, the question is whether they would cut back enough to make a significant price increase unprofitable. Applying that logic to social media, the relevant question is not whether a SSNIP would cause people to stop checking Facebook and Instagram at all, but whether it would cause them to use these apps less — and whether that shift in usage would make the SSNIP unprofitable. See FTC v. Tenet Health Care Corp., 186 F.3d 1045, 1053 n.11 (8th Cir. 1999). That is especially true because social-media apps are free, so users are unlikely to entirely replace one app with another. Instead, these companies fight over users' time: when people have a free moment, which app will they open, and how long will they spend on it? See May 12 PM Tr. at 175:18–176:4 (because these apps are used by almost everyone, they compete over marginal time); May 1 PM Tr. at 170:21–171:6 (similar); May 15 PM Tr. at 257:2–8 (advertising dollars are based on time spent); May 8 PM Tr. at 265:4–266:3 (similar).

The Court is finally ready to preview what follows. The FTC bears the burden of proving the product market's bounds. Du Pont, 351 U.S. at 381; Gross v. Wright, 185 F. Supp. 3d 39, 50 (D.D.C. 2016). The Court will first examine empirical evidence of whether consumers treat TikTok and YouTube as substitutes for Facebook and Instagram. The evidence resoundingly shows that they do. The Court then considers the factors from Brown Shoe, which use qualitative evidence as a proxy for substitutability. See United States v. Google LLC, 747 F. Supp. 3d 1, 108 (D.D.C. 2024) (courts consider both empirical substitution evidence and Brown Shoe factors). Even when the Court considers the apps qualitatively, it finds that their similarities outweigh their differences. PSN apps may have been a market unto themselves when

the FTC filed this case in 2020 or when it approved Facebook's acquisitions of Instagram and WhatsApp in 2012 and 2014. That is no longer the case.

1. *Empirical Evidence of Substitution*

The best evidence of what consumers consider as substitutes often comes from consumers themselves. After all, "[t]he definition of product market . . . focuses" on whether "consumers regard the products as substitutes." FTC v. H.J. Heinz Co., 246 F.3d 708, 718 (D.C. Cir. 2001) (quotation marks omitted); see also FTC v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1039 (D.C. Cir. 2008) (opinion of Brown, J.) (product market's bounds "must ultimately be determined by 'settled consumer preference'") (quoting United States v. Phila. Nat'l Bank, 374 U.S. 321, 357 (1963)).

Two kinds of evidence demonstrate that users consider TikTok and YouTube reasonably interchangeable with Meta's apps: observational and experimental evidence. The Court will consider each, but it notes at the outset that these sources show only that TikTok and YouTube are the closest substitutes for Facebook and Instagram. That fact alone does not answer the relevant question: whether those apps are reasonable enough substitutes to prevent Meta from profitably imposing a SSNIP. Because no evidence in the record measures that question directly, the Court will explain what the evidence does show, then assess what light it throws on the HMT.

a. Observational Evidence

The Court starts with everyday evidence of what apps users treat as substitutes for time on Facebook and Instagram. That evidence comes in two forms: users' response to the launch of TikTok and Meta's tracking of almost 50,000 users as they used their phones over several

months. Both strongly suggest that time on TikTok substitutes for time on Meta's apps, and the latter source shows that YouTube is an even stronger substitute.

i. Response to TikTok

When TikTok entered the United States, Americans reallocated massive amounts of time from Facebook and Instagram to this new app. As TikTok surged in popularity among young adults, they cut their time on Facebook by a quarter. See May 12 AM Tr. at 68:19–25, 70:5–17, 82:14–23; DX 605 (U.S. Young Adults on IG Deck) at 10. Alison testified that when he became Head of Facebook in 2021, the app's biggest challenge was that people were using it less, and "[t]he main factor we attributed the declining engagement to was competitive pressure from TikTok." May 14 PM Tr. at 237:20–238:23; see also DX 600 (Facebook U.S. Long-Term Themes Deck) at 5 (similar).

TikTok also took time away from Instagram. See Apr. 29 PM Tr. at 194:6–195:3. In 2019 — before TikTok had even won widespread adoption in the United States, see May 12 AM Tr. at 82:14–15, 21–22 — Meta estimated that almost a quarter of Instagram's year-over-year loss in user time was because of this new app. See DX 660 (IG Metric Softness Deck) at 6; see also DX 573 (Instagram Mem.) at 4 (Instagram use had dropped or plateaued, partly because of "competition from TikTok and Snapchat"); DX 606 (Instagram U.S. Teen Messaging Deck) at 4 (Instagram deck fretting about "growing competition" from TikTok, which "is winning in share of total time spent on social media apps").

By 2021, Meta estimated that TikTok was causing active Facebook users to spend 4–7% less time on the app, and active Instagram users 4–5% less time. See DX 535 (TikTok Headwinds on FB and IG Deck) at 4, 7. That decline was especially alarming because so many of Meta's users had not even downloaded TikTok yet. See May 12 AM Tr. at 82:19–23. Among

Facebook users who had, Meta estimated that TikTok caused them to use Facebook 17–26% less. See DX 535 (TikTok Headwinds on FB and IG Deck) at 4. Young adults — who were bellwethers of TikTok adoption, id. at 10, 15 — had cut their time on Meta's apps by 11% in just eighteen months. See DX 605 (U.S. Young Adults on IG Deck) at 10; May 12 AM Tr. at 70:8–17, 79:6–80:24; see also id. at 52:18–22 ("Fundamentally, younger cohorts were declining faster than older cohorts, and those cohorts were using TikTok."); Apr. 16 AM Tr. at 19:20–20:4 (when TikTok started growing, Facebook's and Instagram's growth "slowed down dramatically"); Apr. 17 AM Tr. at 29:20–32:16 (discussing document for Meta's Board saying that Meta's usage was 5% lower than expected in first half of 2020, that this was partly because people were using TikTok instead, and that TikTok's growth was expected to cost Meta $3 billion in ad revenue).

In short, Meta observed widespread substitution from Facebook and Instagram to TikTok, and the rate of substitution was high enough to constrain Meta's growth. True, this evidence largely predates Meta's pivot to Reels, see Joint Stipulations of Fact, ¶¶ 20, 34, which likely won user time back from TikTok. But remodeling Facebook and Instagram to resemble TikTok only makes the latter an even closer substitute.

ii. Meta Study Panel

More formal measurement confirms that people treat TikTok as a substitute for Meta's apps — and especially treat YouTube as one. Meta tracks what it calls the study panel, in which almost 50,000 users let Meta record how much time they spend on each of their phone's apps over eighteen weeks. See May 19 PM Tr. at 147:7–12, 148:11–16. Its expert John List examined this data to assess which apps most traded off with Facebook and Instagram. Specifically, he tested the following question: when users decreased the time they spent on

Facebook or Instagram, what apps did they spend more time on instead? And when users increased their time on Facebook or Instagram, what apps did they cut time from? Id. at 147:1–6, 151:10–153:3.

Time on both Facebook and Instagram seemed to trade off most with time on YouTube. Id. at 150:3–7; DX 1226 (Facebook Time Shift Results) (single app with strongest relationship was YouTube, although some app categories, like "Games," had stronger negative relationship); DX 1228 (Instagram Time Shift Results) (similar findings with similar caveats). For both of Meta's apps, the second-biggest tradeoff was with TikTok. See May 19 PM Tr. at 150:7–8; DX 1226 (Facebook Time Shift Results); DX 1228 (Instagram Time Shift Results).

In other words, when people cut time from Facebook and Instagram, they were most likely to devote it to YouTube and TikTok. When they spent more time on Meta's apps, it was most likely to come at the expense of time on YouTube and TikTok.

b. Natural and Field Experiments

While the Court finds that observational evidence compelling, it recognizes that those results might be contaminated by other changes in a messy world. See May 19 PM Tr. at 148:17–19. More persuasive are results from experiments, including natural experiments that take advantage of times when an app suddenly became unavailable and thereby reveal which apps users consider the next-best alternatives. At trial, the parties introduced evidence concerning five natural and field experiments. All five confirmed the observational evidence discussed above.

i. Payment Experiment

The cleanest experiment was another run by List. He recruited 6,000 people and had them install a device that tracked how much time they spent on each of their phone's apps. See

May 19 AM Tr. at 84:1–4. For four weeks, he sat back and measured app usage. See May 19 PM Tr. at 201:19–23. He then randomly assigned participants to a treatment or control group. See May 19 AM Tr. at 84:1–12. People in the treatment group were paid $4 for each hour that they cut from their Facebook or Instagram use. Id. at 84:12–17. The control group was given a fixed weekly payment. Id. at 84:17–18. The payments lasted four weeks, during which List tracked each group's usage. See May 19 PM Tr. at 201:19–23.

The experiment thus made it more expensive to use Meta's apps and so simulated what would happen if Meta exercised monopoly power (or, if one accepts the FTC's view, what would happen if Meta further exercised that power). It worked: people in the treatment group reduced the time they spent on Facebook or Instagram by about two-thirds. See DX 1230 (Payment Experiment Effect). By measuring which apps users reallocated that time to, List could test which apps they considered the next-best thing.

Among people paid to use Facebook less, the app that they transferred the greatest share of time to was YouTube. See May 19 AM Tr. at 98:9–17; but see DX 1246 (Payment Experiment Facebook Diversion Rates) (highest diversion rate went to phone's browser — but that is not use in itself, but instead portal to reach other uses, like New York Times or ESPN). The second-biggest share went to Instagram. See May 19 AM Tr. at 98:18–19. Third was TikTok. Id. at 98:20–21.

Turning to the group paid to use Instagram less, the app they reallocated the most time to was YouTube. See DX 1221 (Payment Experiment Instagram Diversion Rates); May 19 AM Tr. at 101:24–102:1. Second was Facebook. See DX 1221 (Payment Experiment Instagram Diversion Rates) (excluding phone's browser for same reason as above); May 19 AM Tr. at

102:2–3. TikTok was once again third. See DX 1221 (Payment Experiment Instagram Diversion Rates); May 19 AM Tr. at 102:3–4.

Still, those numbers might not represent substitution if they merely reflected where users were spending time anyway. Suppose that someone was already spending 10% of his day on YouTube. If, when he was paid to spend less time on Instagram, he devoted 10% of his newfound free time to YouTube, then he would not be using that app to substitute for Instagram but simply spending additional time as he normally would have. To avoid this problem, List calculated the ratio of (1) the share of erstwhile Instagram time that a user allocated to an app to (2) the share of pre-treatment time that this user was spending on the app. See May 19 AM Tr. at 108:11–21. A ratio above 1 shows that people disproportionately used an app when they would have otherwise been on Facebook or Instagram and thus suggests that the app is peculiarly a Facebook or Instagram substitute.

Measured this way, List's results grow even more striking. Among the group paid to use Facebook less, the highest ratio went to Instagram (a ratio of 4), then TikTok (2.7), then YouTube (2.1), then Snapchat (1.9). Id. at 109:13–15; DX 1248 (Facebook Indexed Diversion Rates). No other app had a ratio much above 1. See DX 1248 (Facebook Indexed Diversion Rates). For people paid to use Instagram less, the highest ratio went to TikTok (2.7), then YouTube (2.5), then Facebook (2.4), then Snapchat (2.1). See May 19 AM Tr. at 109:25–110:8; DX 1249 (Instagram Indexed Diversion Rates). No other app had a ratio meaningfully above 1. See May 19 AM Tr. at 109:25–110:8; DX 1249 (Instagram Indexed Diversion Rates); but see id. (phone's browser had ratio of 1.6).

This experiment, which in the Court's judgment offers the single best evidence of what consumers consider alternatives to Meta's apps, tells a clear and consistent story: when using

Facebook and Instagram becomes more costly, users turn to TikTok, YouTube, and Snapchat, with no other app notably standing out.

ii. 2021 Meta Outage

What about when people cannot use Facebook or Instagram at all? In October 2021, Meta's apps suffered an outage and were offline for several hours. See DX 921 (Metrics Lift due to FB Outage) at 1. Meta's experts analyzed where users spent time instead. Of the total increase in usage of other apps, the largest share went to TikTok. See DX 1167 (Meta Outage Effects). The second largest went to YouTube. Id. And Snapchat — which the FTC insists is Meta's closest competitor — fell far below, seeing its usage increase by less than a third of what TikTok enjoyed and less than half of what YouTube did. Id.; see also May 21 AM Tr. at 86:9–12 ("If you think that Snapchat is in the market, then you are seriously underestimating the importance of the competitive constraints that apps like TikTok [and] YouTube . . . are imposing on Meta.").

These results are especially striking because Reels was still in its infancy. See May 21 AM Tr. at 97:4–9. Users were thus not trying to replace unconnected videos but instead content from their friends. Yet they still turned to TikTok and YouTube. This episode thus not only reinforces that those apps are the closest alternatives to Facebook and Instagram, but it also suggests that connected and unconnected content might compete with one another. Id. at 97:10–15.

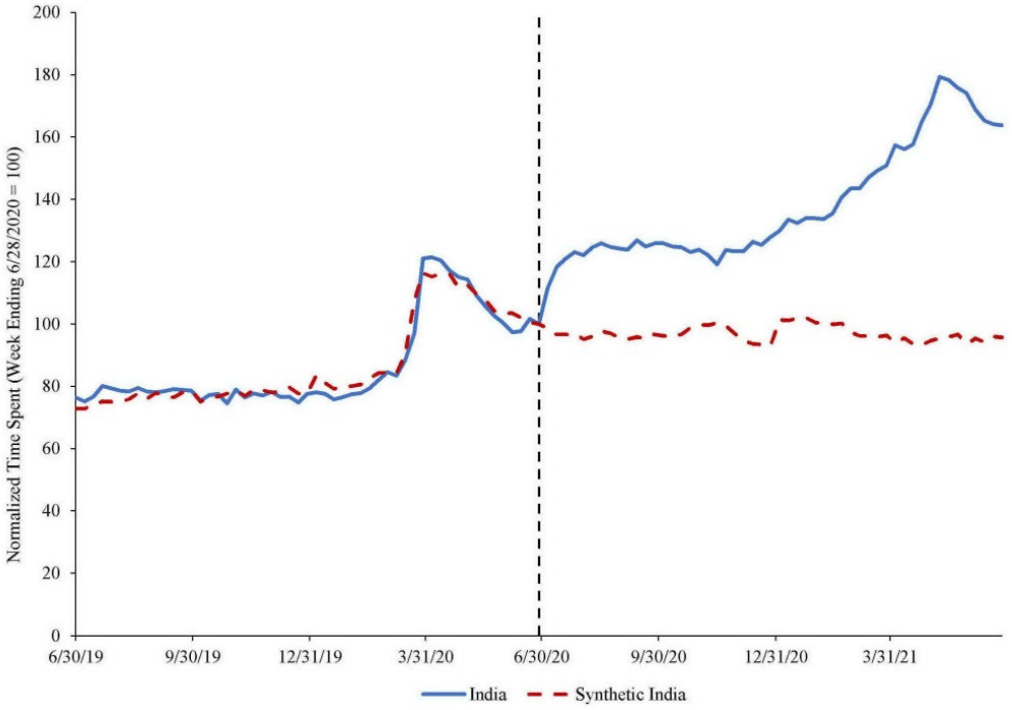
iii. India TikTok Ban

Opposite scenarios have also occurred, where users had to seek alternatives to TikTok or YouTube. The Court starts with India's banning of TikTok in 2020. See May 19 AM Tr. at 116:6–8.

As soon as TikTok disappeared, Indians spent more time on Facebook and Instagram. See May 12 AM Tr. at 67:13–20; DX 535 (TikTok Headwinds on FB and IG Deck) at 14. The shift was especially dramatic among teens, who presumably were most likely to have been using TikTok before the ban, see DX 535 (TikTok Headwinds on FB and IG Deck) at 10, 15 (teens more likely to use TikTok in United States): 12% more teens used Facebook each day, and the average teenage user spent 27% more time on the app. Id. at 14. Use of Instagram also surged. See May 12 AM Tr. at 84:10–19.

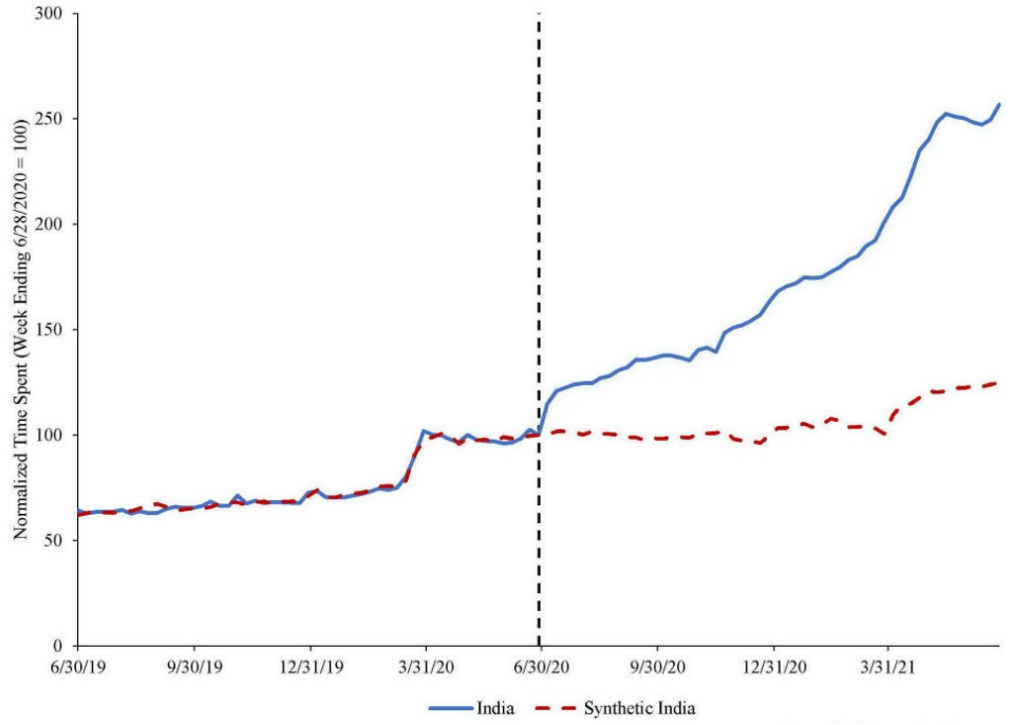
List tested whether TikTok's unavailability caused this stampede to Meta's apps. He created a synthetic control — a weighted average of several countries constructed to match the pre-ban pattern of usage in India — and compared how time spent on Facebook and Instagram changed in India (where TikTok had been banned) to the synthetic control (where it had not been). See May 19 AM Tr. at 116:17–117:8; see also Alberto Abadie, Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects, 59 J. Econ. Literature 391, 392–98 (2021) (explaining synthetic controls). The results practically speak for themselves:

Time Spent on Facebook Before and After TikTok Ban



DX 1224

Time Spent on Instagram Before and After TikTok Ban



DX 1225

Two weeks into the TikTok ban, Indians had increased their time on Facebook by more than 20%. See DX 1224 (India TikTok Ban Facebook Effects). In the synthetic control, Facebook time fell. Id. And Meta's usage in India kept climbing. Nine months into the ban, Indians were spending over 60% more time on Facebook, while its use had not changed in the synthetic control. Id. In the same time period, Indians increased their time on Instagram by a whopping 150%. See DX 1225 (India TikTok Ban Instagram Effects). In the synthetic control, Instagram time rose only about 25%. Id.

This natural experiment shows what the world might look like without TikTok. Crucially, it measures long-term effects, confirming that substitution between Meta's apps and TikTok is not a passing phenomenon produced only by short-term outages. It shows that TikTok takes an enormous amount of time away from Facebook and Instagram.

iv. U.S. TikTok Shutdown

Closer to home, as the United States' short-lived TikTok ban was about to go into effect, the app went offline for about half a day this past January. See May 8 PM Tr. 201:9–12. While TikTok was down, people switched to other apps. See DX 1154 (TikTok Shutdown Effects). The greatest share of that newfound free time went to Facebook, then to Instagram, then YouTube. Id. YouTube was following the outage closely, and it homed in on users who were looking for a TikTok substitute: tracking app usage on people's phones, it drilled down on users who tried to open TikTok, saw that it was down, and opened another app in the next five minutes. See DX 1255 (U.S. TikTok Offline Period Impact Analysis Deck) at 7. Of the apps those would-be TikTok users turned to, they spent the most time on Facebook, then Instagram, then YouTube. Id. (also showing that Google Chrome was third ahead of YouTube, which Court ignores for reasons above).

Two results here are especially striking. First, according to the FTC's theory, TikTok and YouTube are video-entertainment apps, see FTC Post-trial Findings of Fact, ¶¶ 58–60, 73–74, while Facebook and Instagram are used for personal social networking. Id., ¶¶ 48–49. If the FTC were right, you would expect that users seeking a substitute for TikTok would turn most often to YouTube. The evidence shows otherwise: people evidently thought that the closest platforms to TikTok were Facebook and Instagram. It is unclear whether that was because Meta's apps are really entertainment apps, because TikTok is really a social-networking app, or because those artificial categories do not make sense. What is clear is that the FTC's hypothesis about how people use these apps is consistently disproven by the data.

Second, the amount of time that TikTok seems to be taking from Meta's apps is stunning. Compared to the same time on prior weekends, Americans used Instagram either 72% or 58% more when TikTok was down, depending on which measurement you use. See DX 1255 (U.S. TikTok Offline Period Impact Analysis Deck) at 6; DX 1154 (TikTok Shutdown Effects). Teens, who were more likely to be on TikTok, see DX 535 (TikTok Headwinds on FB and IG Deck) at 10, doubled their Instagram time. See May 8 PM Tr. at 202:7–9. In the same comparison, Americans overall used Facebook either 10% or 12% more. See DX 1255 (U.S. TikTok Offline Period Impact Analysis Deck) at 6; DX 1154 (TikTok Shutdown Effects). Mosseri, the Head of Instagram, put the Instagram numbers in perspective: "[I]n a world where we fight for basis points, .01 percent wins. . . . The idea of the entire app doubling . . . was jaw dropping." May 8 PM Tr. at 202:10–13. The Court finds this evidence particularly relevant because it is so recent and thus reflects the apps as they exist now.

Meta's leadership team took away a clear lesson. Mosseri reflected that the episode showed "there's no question about whether or not we compete with TikTok." Id. at 16–17.

Alison, the Head of Facebook, drew the same conclusion: "We believe that TikTok is taking . . . engagement . . . and people's attention away from Facebook and that it is a very strong competitor today and will likely continue to be." May 15 AM Tr. at 21:9–12.

v. 2018 YouTube Outage

YouTube suffered a 90-minute outage in 2018. See May 12 AM Tr. at 88:13–16; DX 345 (Oct. 2018 Meta Executives Email Thread) at 3. During that time, the number of people using Facebook's mobile app rose 6%, and time on Facebook climbed by 7%. See DX 345 (Oct. 2018 Meta Executives Email Thread) at 3; see also May 12 AM Tr. at 88:13–19. Facebook had been debating whether to invest more in video and whether that would cannibalize time on its traditional offerings. See DX 345 (Oct. 2018 Meta Executives Email Thread) at 3. Studying the effect of the YouTube outage, one executive wrote that "YouTube[] . . . cannibalizes us already. We weren't able to prove this assumption with any data, but tonight" the outage provided evidence that "confirms our strongly-held belief." Id. Knocking out YouTube had an "instant impact" on Facebook use, and that impact was "huge." Id. Indeed, the evident substitution between Facebook and YouTube helped convince Meta to invest billions in video. See May 8 PM Tr. at 179:12–16.

c. Interpreting the Evidence

Those natural and field experiments — the pricing experiment, the Meta outage, India's TikTok ban, the TikTok pause in the United States, and the YouTube outage — tell a consistent and unmistakable story. When consumers cannot use Facebook and Instagram, they turn first to TikTok and YouTube. When they cannot use TikTok or YouTube, they turn to Facebook and Instagram. That evidence leaves the Court with no doubt that TikTok and YouTube compete with Meta's apps. Alexander Schultz, Meta's Chief Marketing Officer and Vice President of

Analytics, see May 7 PM Tr. at 247:2–4, put it succinctly: "[E]very time we go down, [time] goes to those services. And [when] they go down, it goes to us." May 12 AM Tr. at 89:2–3.

Of course, a rival does not belong in the product market simply because it competes with the defendant. H & R Block, 833 F. Supp. 2d at 54. Instead, it must compete enough to prevent the defendant from exercising monopoly power. Rothery, 792 F.2d 210 at 218; Areeda & Hovenkamp, ¶ 536, at 322–23. The Court finds that TikTok and YouTube do, for two reasons.

First, the magnitude of substitution. India offers a counterfactual world in which TikTok does not exist: in that world, people spend 60% more time on Facebook and roughly double their time on Instagram compared to the synthetic control. See DX 1224 (India TikTok Ban Facebook Effects); DX 1225 (India TikTok Ban Instagram Effects). When TikTok went offline in the United States, Americans spent 58–72% more time on Instagram and 10–12% more time on Facebook. See DX 1154 (TikTok Shutdown Effects); DX 1255 (U.S. TikTok Offline Period Impact Analysis Deck) at 6. True, in May 2021, Meta estimated that TikTok was depressing active users' Facebook time by only 4–7% and their Instagram time by only 4–5%. See DX 535 (TikTok Headwinds on FB and IG Deck) at 4, 7. But when Meta considered only users who had adopted TikTok, its estimate of lost time rose to 17–26% (at least for Facebook). Id. at 8. The number of Americans using TikTok has soared by about 80% since then, so the app's current effect on Meta is likely closer to the latter numbers than the former. Compare DX 60 (V Pappas Decl.), ¶ 9 (as of September 2020, TikTok had 93 million monthly active U.S. users), with Apr. 30 AM Tr. at 65:22–25, and PX 689 (Presser Decl.) at 6 (today, that number is over 170 million).

As for the effect of YouTube's competition, the only quantitative measure comes from the YouTube 2018 outage, when Facebook use rose by 7%. See DX 345 (Oct. 2018 Meta Executives Email Thread) at 3. That is meaningful "in a world where [these companies] fight for

basis points." May 8 PM Tr. at 202:10. But remember that the 2018 version of Facebook did not have Reels, see Joint Stipulations of Fact, ¶ 20, and had much more content from friends. Nor did 2018's YouTube have Shorts. See Todd Sherman, YouTube Off. Blog, Bringing YouTube Shorts to the U.S. (Mar. 18, 2021). https://perma.cc/7BPL-3CWW. Today, Americans spend most of their time on Facebook watching videos, see DX 1147 (U.S. Share of Facebook Time Spent on Video), and the part of Facebook on which they spend the most time (Reels), see DX 1152 (Jan. 2025 Facebook Surface Breakdown), is identical to the Shorts that YouTube offers. The 2018 YouTube outage thus likely underestimates the effect of competition from YouTube on Facebook's business today. More recent evidence comes from List's payment experiment, which found that YouTube is Facebook's closest substitute. See May 19 AM Tr. at 98:9–17.

The magnitude of TikTok's and YouTube's effect on Meta's market share convinces the Court that these apps do not merely compete with Facebook and Instagram "at some level." H & R Block, 833 F. Supp. 2d at 54. Instead, they compete fiercely over a meaningful share of Meta's business.

Second, one need not take the Court's word for it: Meta has made billions of dollars of investment decisions because it views TikTok and YouTube as serious competitive threats. Take Reels, which Meta launched to meet the competition from TikTok. See May 8 PM Tr. at 154:21–155:23; DX 922 (TikTok Project Blue Summ.) at 14. Developing and maintaining this new feature cost Meta a small fortune in dollars and resources. See May 8 PM Tr. at 159:19–160:7; Apr. 29 PM Tr. at 197:12–25; May 1 PM Tr .at 171:10–14; May 12 AM Tr. at 70:18–71:7; May 14 PM Tr. at 256:9–16. It required the company to train and run a large AI model, see May 8 PM Tr. at 159:19–160:7; May 14 PM Tr. at 254:6–256:8, to redesign its video player,

see May 14 PM Tr. at 256:19–257:18, to overhaul its apps' features, see May 8 PM Tr. at 156:20–157:17, and to develop an infrastructure for content creators to make those Reels in the first place. See May 14 PM Tr. at 257:20–258:18. All told, Meta spent around $4 billion on Reels last year and is on track to spend about $4.5 billion this year. See May 8 PM Tr. at 159:25–160:2. The true cost of Reels is even higher: because Reels has a lower ad load than Meta's other features, shifting to Reels cost Meta dearly in short-term advertising revenue. See DX 922 (TikTok Project Blue Summ.) at 14 (TikTok estimate that shift to Reels would cost Meta 6% of total ad revenue in 2022); May 8 PM Tr. at 162:19–163:13; May 12 AM Tr. at 69:25–70:17.

That Meta sunk so much money and resources into fighting off competition from TikTok shows that substitution was taking a chunk out of Meta's bottom line. See May 8 PM Tr. at 163:14–20; May 12 AM Tr. at 69:13–24, 70:5–17; May 14 PM Tr. at 261:12–16. Indeed, since Reels now accounts for most time spent on Instagram and the most popular part of Facebook, Meta's balance sheet tells only part of the story: substitution from Meta to TikTok was so high that it forced Meta to fundamentally transform its apps.

While the evidence of substitution to YouTube is thinner, Meta similarly invested billions and developed new features to respond to that competitive threat. See May 8 PM Tr. at 179:2–16; May 12 AM Tr. at 89:17–90:4; May 14 PM Tr. at 252:5–20; May 15 AM Tr. at 22:2–12.

True, none of this empirical evidence is a SSNIP test. Bans and outages do not impose small but significant price increases; they get rid of a product entirely. The outages and pricing experiment were transitory. And the India ban has the further flaw that it is from a different geographic market.

In the real world, however, no evidence is perfect. Nor is any single piece dispositive here. While each of Meta's empirical showings can be quibbled with, they all tell a consistent story: people treat TikTok and YouTube as substitutes for Facebook and Instagram, and the amount of competitive overlap is economically important. Against that unmistakable pattern, the FTC offers no empirical evidence of substitution whatsoever.

Although the HMT and its SSNIP test cannot be directly tested in this case, it remains the relevant question. So the Court must take the non-HMT substitution evidence, make a qualitative, holistic appraisal of it, and ask what light it sheds on the relevant legal issue: could Meta maximize its profit by making its apps significantly worse than they would be in a competitive world, or is it constrained by competition from TikTok and YouTube? When the evidence implies that consumers are reallocating massive amounts of time from Meta's apps to these rivals and that the amount of substitution has forced Meta to invest gobs of cash to keep up, the answer is clear: Meta is not a monopolist insulated from competition. The Court finds the evidence favoring Meta on this issue both credible and convincing.

d. The FTC's Counterarguments

The FTC, naturally, disagrees. Before launching into its objections, the Court first comments on the credibility of the expert witness from which many of them issue. It then moves on to the merits of the agency's counterarguments.

i. Hemphill

While much of the evidence discussed above comes from lay witnesses (plus Meta's experts List and Dennis Carlton), the Court acknowledges that Professors Scott Hemphill and Clifford Lampe offered some contrary testimony. It seems unlikely that Hemphill, however, could have approached his task with an open mind. Before the FTC filed this suit, he met with it,

the Department of Justice, and state attorneys general to urge them to investigate Meta and outlined an antitrust suit that those enforcers could bring. See May 13 PM Tr. at 148:20–149:15, 152:23–153:25. He had created this presentation with Professor Tim Wu, who has long advocated breaking up Facebook, id. at 155:1–156:11, and Chris Hughes, a disillusioned Facebook cofounder who had become a public champion of dismantling the company. Id. at 156:13–159:11. The presentation even advised the FTC on specific next steps: recommending whom the agency should subpoena, advising it on what topics to ask those people about, and urging it to seek a preliminary injunction before Meta could integrate its messaging services and thereby make divestiture harder. See May 27 PM Tr. at 169:21–173:8.

The FTC took Hemphill's advice to heart. It opened the current investigation just one week after meeting with him, id. at 169:6–16, interviewed the people he had mentioned, id. at 170:20–171:3, and requested detailed information about Meta's plans to integrate its messaging services. Id. at 173:4–8. Just one day after the agency filed its Complaint, Hemphill wrote an article proclaiming, "These were acquisitions that . . . were by a monopolist, of its direct competitors or nascent competitors, with abundant evidence of anticompetitive intent." Id. at 174:22–175:19. All of this was before he had been hired as an expert witness. Id. at 173:15–18.

Once Hemphill was brought on, the Court doubts that he weighed the evidence objectively. Instead, it was almost as if the FTC had put one of its own lawyers on the stand. The Court realizes that parties seek out experts who they expect will reach conclusions that help them, and it cannot demand that parties find some antitrust expert who has never even considered whether the subject company might be a monopoly. The fact that someone has views on such a question — and might even have published articles on it — is, after all, what makes him an expert and not a desert hermit. But when Hemphill urged a party to bring this very suit, advised

it on litigation strategy, and publicly championed its case before getting hired, it makes a neutral evaluation of his opinions more difficult.

The Court nonetheless does not reject such opinions merely because of potential bias. Instead, it explains why they do not persuade on the merits.

ii. Cellophane Fallacy

Through Hemphill, the FTC insists that the Court cannot trust Meta's substitution evidence because of the so-called Cellophane fallacy. See FTC Post-trial Mem. at 34–35. This principle warns that consumers are more likely to turn to alternatives if a product is already priced above competitive levels, so a monopolist charging a supracompetitive price will appear to face competition that it would not in a competitive market. See, e.g., Epic Games, Inc. v. Apple, Inc., 67 F.4th 946, 975 n.7 (9th Cir. 2023).

While the Court is mindful of this trap, it does not find the fallacy too worrying here. Start with the evidence that Cellophane does not threaten. It would not affect the order of substitution, which shows that the closest substitutes for Meta's apps are YouTube and TikTok. Nor does it undermine the amount of substitution to Meta's products when TikTok or YouTube becomes unavailable. If anything, Meta's purported monopoly power would bias those rates down, since consumers would be less likely to switch to an app charging a supracompetitive quality-adjusted price. It would also not affect evidence from Facebook and Instagram outages, which do not slightly increase the price of Meta's apps but take them away entirely. Indeed, if Meta were charging a monopoly price, that might make substitution rates to TikTok and YouTube look misleadingly low: the users most likely to respond to a price increase by switching to a different app already would have, while the ones still clinging to Meta's apps would be least likely to consider another app an acceptable substitute.

At most, then, the Cellophane fallacy makes the Court wary of Meta's alarm at how much business TikTok was taking from it and of its executives' perception that YouTube was a serious competitor. Yet while the Cellophane fallacy fits this general kind of evidence, it does not easily fit this market. Because Meta's apps are free, the FTC's primary theory of a supracompetitive price is that Meta has saturated its apps with ads. See FTC Post-trial Findings of Fact, ¶¶ 157–63. Yet those ads have such marginal effects on users' behavior that is hard to imagine that they are yanking substitution rates around. See May 13 AM Tr. at 50:23–51:11; May 20 AM Tr. at 36:18–23; DX 342 (News Feed Ad Load Trajectory Deck) at 26. Consider that Facebook users who downloaded TikTok used Meta's app 17–26% less. See DX 535 (TikTok Headwinds on FB and IG Deck) at 4. By comparison, Facebook users who were given a product with no ads whatsoever used the app only 7% more. See May 13 AM Tr. at 50:23–51:11; May 20 AM Tr. at 36:18–23. It is hard to believe that nudging down the ad load to whatever the FTC considers the competitive level would make substitution rates to TikTok unimportant.

Invoking the Cellophane fallacy here also puts the cart before the horse. The fallacy is a risk only if Meta is in fact a monopoly. Because the FTC's affirmative evidence does not establish monopoly power, it does not persuade the Court that Facebook and Instagram are charging supracompetitive prices. The substitution evidence therefore seems reliable here. Cf. PepsiCo, Inc. v. Coca-Cola Co., 114 F. Supp. 2d 243, 257–58 (S.D.N.Y. 2000) (no risk of Cellophane fallacy when plaintiff had "not submitted any evidence to show that [defendant's] prices are supracompetitive").

iii. Expansion into New Market

The FTC's next theory is that Meta does not compete in one market but in two. The agency acknowledges that Facebook and Instagram have added unconnected video and even admits that this option might compete with TikTok and YouTube. But, the agency rejoins, Meta's original offering of friend content still has no substitute. It is instead as "if the only supermarket in a town starts selling pet food." FTC Post-trial Mem. at 3. "[T]he supermarket would find itself in newfound competition with Petco and PetSmart[, b]ut those competitors would not alter the supermarket's dominance, because consumers cannot patron[ize] pet-store retailers to accomplish the purpose of buying groceries for the week." Id.

The evidence, however, shows that consumers treat connected and unconnected content as substitutes. In the FTC's telling, Meta added Reels to enter a new market where it could poach users from TikTok. See FTC Post-trial Mem. at 3. But it was the other way around: people were substituting time from Meta's apps to TikTok before Meta launched Reels. See May 12 AM Tr. at 105:18–24; Apr. 16 AM Tr. at 24:19–24; Apr. 17 AM at 31:21–25, 32:17–19. Meta did not create Reels to break into a new market but instead to hang onto its own users who were already flocking to TikTok. See May 8 PM Tr. at 1634:14–20; May 12 AM Tr. at 69:13–24, 70:5–17; May 14 PM Tr. at 261:12–16. Consumers therefore used TikTok as a replacement not just for unconnected video but for the friends' posts on Facebook and Instagram that the FTC claims have no substitute.

What is more, when Meta experimentally rolled out Reels for some users and not others, the users with Reels spent less time on their Instagram feed and marginally less time on Instagram Stories. See DDX 36.17 (Reels Holdout Effects); May 21 AM Tr. at 101:22–103:19. They therefore seemed to treat unconnected Reels as a substitute for the parts of the app where

they would see posts from their friends. Those results were consistent with what happened to Meta's apps when TikTok first gained a foothold: it crimped the growth of time spent on every part of Facebook and Instagram, not just videos. See Apr. 16 AM Tr. at 19:20–21:2.

Similarly, Snapchat found that users were [redacted] For instance, when Snapchat surveyed users about [redacted] A Snapchat executive confirmed that [redacted] Another source of evidence, another confirmation that people use TikTok as a substitute for content from friends.

The Court is the first to admit that seeing a photo from a friend and watching a video of a stranger are different. Yet like many differentiated products — Chinese and Mexican restaurants, Sprite and Coca-Cola, glass containers and metal cans — they compete.

2. *Brown Shoe*

Courts also identify distinct product markets using the factors from Brown Shoe: (1) the products' "peculiar characteristics and uses," (2) "industry or public recognition of the

submarket as a separate economic entity," (3) "unique production facilities," (4) "distinct customers, distinct prices [and] sensitivity to price changes," and (5) "specialized vendors." Brown Shoe, 370 U.S. at 325. The parties do not discuss the last factor, so the Court will ignore it as well.

Before plunging into the Brown Shoe factors, the Court notes two preliminary points. First, those factors do not set out a separate inquiry from the one the Court has already been performing. Rothery, 792 F.2d at 218 & n.4. The controlling question remains which firms belong in the product market, and that depends on which apps are reasonably interchangeable with Facebook and Instagram. The Brown Shoe factors approach that same question via a different path, using qualitative evidence as "evidentiary proxies" for whether consumers would in fact substitute between products. Id. at 218. Thurman Indus., Inc. v. Pay 'N Pak Stores, Inc., 875 F.2d 1369, 1375 (9th Cir. 1989) ("We have repeatedly noted that the Brown Shoe indicia are practical aids for identifying the areas of actual or potential competition and that their presence or absence does not decide automatically the submarket issue."); see also Whole Foods, 548 F.3d at 1038 (opinion of Brown, J.) (treating Brown Shoe factors and empirical substitution evidence as identical).

Second, the Court will avoid some confusing language that these factors have invited. Courts typically explain that the Brown Shoe factors pick out distinct "submarkets," which implies that a product market can be further split into cognizable niches. See Brown Shoe, 370 U.S. at 325. That impression would be misleading. The only relevant concept is the product market, indivisible as an atom. Id. (submarkets might be relevant only because they, "in themselves, constitute product markets for antitrust purposes"). By definition, the product market is already the smallest grouping of products on which a hypothetical monopolist could

profitably impose a SSNIP. Meta, 775 F. Supp. 3d at 36. If a subcomponent of that market meets that test, then it is not a "submarket" but a product market in its own right. See Areeda & Hovenkamp, ¶ 533c, at 288–91. If a subcomponent flunks that test, then it is legally irrelevant, and dignifying it with the name "submarket" adds only confusion. Id. (exhorting courts to abandon the word "submarket"); see also Geneva, 386 F.3d at 496 (noting these points).

Recall that the FTC argues that within social media, two relevant markets exist: one for PSN apps like Facebook, Instagram, and Snapchat, and a separate one for entertainment apps like TikTok and YouTube. The Court now tests that hypothesis against the evidence to which Brown Shoe points.

a. Peculiar Characteristics and Uses

This factor will be familiar to any reader who has compared products in the aisle of a hardware store. It asks whether different products have physical or functional differences that make them less likely to be interchangeable. See Rothery, 792 F.2d at 218 n.4; Brown Shoe, 370 U.S. at 326–28. Of course, it is not enough to find some difference between products. Any two products will have differences, yet the Supreme Court has rejected the notion that "Brown Shoe w[as] intended to limit the competition protected by [antitrust law] to competition between identical products." Cont'l Can, 378 U.S. at 452; see also du Pont, 351 U.S. at 394 ("[I]llegal monopoly does not exist merely because the product said to be monopolized differs from others. If it were not so, only physically identical products would be a part of the market."). The Court therefore considers how Meta's apps differ from TikTok and YouTube but also how important those differences are in the context of the overall apps. See Brown Shoe, 370 U.S. at 326 (asking

whether this factor showed that product's "characteristics peculiar to itself render[ed] it generally noncompetitive with the others" at issue).

i. Peculiar Characteristics

The FTC first points out that PSN apps all feature a so-called social graph — a map of each user's connections to other people on the app, whom the user usually knows in real life. See Apr. 14 PM Tr. at 162:7–163:8; Apr 23 AM Tr. at 85:4–86:18; Apr. 30 AM Tr. at 46:1–10; May 8 AM Tr. at 66:25–67:9, 70:4–71:1, 106:13–15; May 12 PM Tr. at 226:20–227:8; Jacob Andreou Deposition at 182:8–11; PX 729 (People You May Know Explanation) at 1–3. They use this graph to curate the content that each user sees. Think of Facebook's Feed showing you someone's picture because you are friends with her or Instagram showing you a Story because you followed the account that posted it. See Apr. 14 PM Tr. at 170:9–13; May 14 PM Tr. at 255:13–20; Andreou Dep. at 183:3–184:15 (without friend graph, Snapchat "can't deliver any value" to user).

By contrast, TikTok and YouTube are built around a content graph — a map of the topics that a user is interested in. See Apr. 17 PM Tr. at 172:20–173:7, 174:7–14; Apr. 30 AM Tr. at 46:11–25, 47:10–21; Blake Chandlee Deposition at 17:07–18:03; PX 13616 (TikTok Talking Points) at 3. Both apps use this content graph to recommend posts to users. See Apr. 16 AM Tr. at 37:14–23; Apr. 17 AM Tr. at 173:3–7; Apr. 23 AM Tr. at 95:12–21; Apr. 30 AM Tr. at 38:11–17; PX 13616 (TikTok Talking Points) at 3; PX 11525 (2019 Top Social-Media Trends Deck) at 23.

True enough, but TikTok has a social graph, too. It lets users follow people they know and has tried to make mapping those offline connections a bigger part of the app. It prompts users to import their list of Facebook and Instagram friends as well as their phone contacts, see

Apr. 30 AM Tr. at 57:21–58:5; May 12 AM Tr. at 55:12–20, 72:8–10, which it uses to suggest accounts to follow that belong to people the user knows. See Apr. 30 PM Tr. at 151:20–152:6. TikTok has also added a Friends tab, which contains only posts created or reshared by accounts that the user follows and that follow the user back. See Apr. 30 AM Tr. at 90:16–91:1. [redacted] see also DX 535 (TikTok Headwinds on FB and IG Deck) at 16 (Meta noting that TikTok is building "[s]ocial graph"); PX 3827 (Aug. 2022 Meta Email Thread) at 2 (Alison noting that "TikTok [is] pushing so hard into friending and friend sharing[;] . . . we are not the only company working on blending recommendations and socially connected content"); DX 922 (TikTok Project Blue Summ.) at 19 ("Meta is concerned that the moat around its core differentiator, the social graph, is getting weaker as Tiktok Friends tab and messaging functionality continues to gain traction.").

To be sure, TikTok's social graph has not achieved great success. A TikTok executive estimated that fewer than 10% of users import their contacts. See Apr. 30 AM Tr. at 58:6–17. Meanwhile, users spend only about 1% of time on the app watching videos in the Friends tab. Id. at 56:13–21; Pappas Dep. at 23:3–24:14.

Then again, these features are now also ancillary on Facebook and Instagram. Content from friends that is delivered through a social graph is a tiny minority of what users see on Meta's apps. See DX 1152 (Jan. 2025 Facebook Surface Breakdown); DX 1153 (Jan. 2025 Instagram Surface Breakdown). Instead, they overwhelmingly use the apps to see unconnected content recommended by AI algorithms. Id. That feature is identical to the core of TikTok and

YouTube. While social features are relatively more important on Facebook and Instagram, both apps' primary features are found on these two rivals.

Also probative is the fact that Meta's apps, Snapchat, TikTok, and YouTube all deliberately copy each other. See May 8 AM Tr. at 107:23–108:4; May 12 AM Tr. at 38:15–39:11; May 15 AM Tr. at 22:2–23:4. Meta's Reels and YouTube's shorts are transparent clones of TikTok, as is Snapchat's Spotlight feature. See DX 1088 (TikTok Resp. to Australian Regulators) at 3; Pappas Dep. at 55:19–20; Morrison Dep. at 85:16–19; May 15 AM Tr. at 22:17–23:7; May 15 PM Tr. at 265:12–19; May 19 AM Tr. at 53:7–9; Chandlee Dep. at 68:16–69:12. Snapchat first popularized stories, and Facebook, Instagram, and TikTok added identical versions. See Apr. 30 AM Tr. at 89:8–20; May 8 PM Tr. at 181:18–182:13; May 12 AM Tr. at 38:19–22; Chandlee Dep. at 68:13–15. Even YouTube tried its hand at a stories feature. See May 8 PM Tr. at 182:10–11. TikTok's addition of a social graph incorporates the feature that rocketed Facebook and Instagram to global popularity. See Apr. 16 AM Tr. at 21:3–23; Apr. 29 PM Tr. at 196:22–197:10; May 8 AM Tr. at 105:14–22; May 12 AM Tr. at 71:12–25.

The apps also compete to attract the same content creators. See Apr. 15 PM Tr. at 151:18–23; Apr. 16 AM Tr. at 36:13–37:10; Apr. 30 PM at 171:22–23; May 8 PM Tr. at 174:2–176:19; PX 12669 (FB App Strategy Thread) at 5. Those creators often post the same video to multiple platforms, as an Instagram Reel, a TikTok video, and a YouTube short. See Apr. 17 PM Tr. at 192:1–6; May 8 PM Tr. at 175:5–10.

When apps inside and outside the FTC's alleged market are deliberately offering the same features and competing to get the same people to post the same videos, that is strong evidence that that they are competing for the same users who are after the same things. See May

21 AM Tr. at 68:6–20. It is also evidence that while these apps do indeed have distinguishing features, the identical ones predominate.

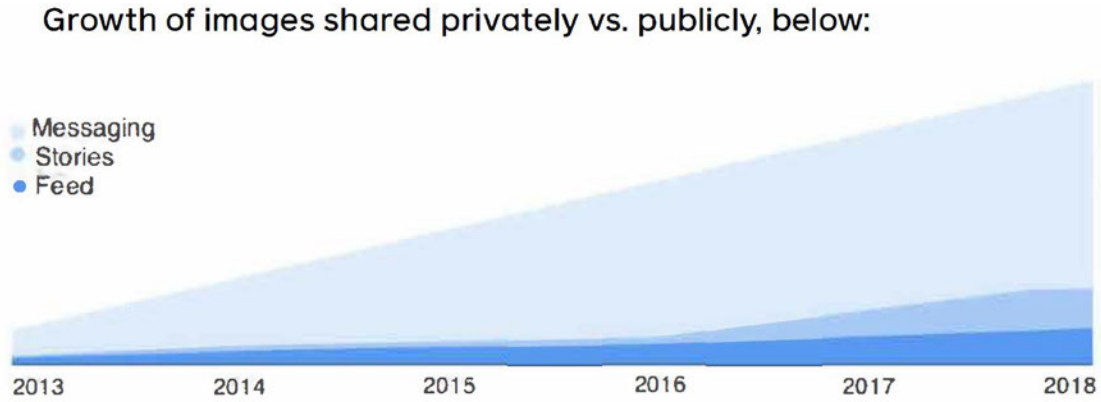
ii. Peculiar Uses

Still hunting for differences, the FTC argues that people use Facebook, Instagram, and Snapchat for distinct reasons. For one, they have norms of sharing personal content for others to see. People find it natural to post a vacation photo to Instagram or a life update to Facebook, but they are far less likely to share moments from their daily life on TikTok or YouTube. See May 8 AM Tr. at 92:7–17; Chandlee Dep. at 21:3–16; Apr. 23 PM Tr. at 143:13–144:7; May 12 PM Tr. at 216:2–20; PX 13564 at 13.

That is indeed a difference between the apps; once again, it is a minor one. People seldom post on Facebook or Instagram these days. See May 15 AM Tr. at 13:17–21 ("[F]or most people, [Facebook] is a consumption experience."); May 7 AM Tr. at 70:7–18; May 8 AM Tr. at 65:20–22, 87:7–11; May 14 PM Tr. at 176:14–177:11, 217:24–218:18, 221:5–9; May 15 AM Tr. at 11:9–23; DX 600 (Facebook U.S. Long-Term Themes Deck) at 5. On a given day, only about 1 in 20 active Facebook users shares an original post in Facebook's News Feed, and about the same percentage posts an original story. See May 15 AM Tr. at 84:11–17; DDX 29.2 (Participation Rates); see also May 15 AM Tr. at 12:1–6 (explaining participation rates). Over on Instagram, "maybe 1 in 40 or 30 people a day will post something to Feed, and about 1 in 6, 1 in 7 will post something to Stories." May 8 AM Tr. at 32:14–16.

Instead, the dominant way that people use Meta's apps to connect with friends is by sharing content in private messages or texts. See DX 606 (Instagram U.S. Teen Messaging Deck) at 4; DX 585 (Facebook Board Meeting Deck on Messaging) at 3, 6; DX 517 (Mosseri Post on Meaningful Social Interactions) at 2; May 8 AM Tr. at 118:13–22; PX 708 (Mosseri

Interview) at 10. As of 2018, there were 63 times as many Facebook messages per day as posts. See DX 517 (Mosseri Post on Meaningful Social Interactions) at 2. Even when Meta's users want to share a picture with friends, they do so overwhelmingly using direct messages:



DX 585 (Facebook Board Meeting Deck on Messaging) at 6
(title reformatted and image rescaled for clarity)

The dominant way that people use Meta's apps to share with friends is therefore the same way they share content from TikTok or YouTube.

The FTC tries one last angle. Its expert Clifford Lampe testified that survey responses and social norms show that people use Facebook, Instagram, and Snapchat to connect with friends, but open TikTok and YouTube to be entertained. The Court found none of this persuasive.

Starting with the surveys, they are far more mixed than the FTC lets on. For instance, it turns out that TikTok is fairly social. In one survey, when asked why they used TikTok, 51% of respondents chose, "To watch videos posted by my friends." DX 584 (Facebook Deck on How People Share Across Social Platforms in U.S.) at 48. That answer was essentially tied for first, neck and neck with "[t]o watch videos from the creators I follow" (53%) and "[t]o watch videos recommended by TikTok" (52%). Id. Another survey found that people were more likely to report that they used TikTok to "[s]tay connected with others" than they were for Instagram. See

DX 952 (Social Media Landscape Quantification Deck) at 12. The same survey found that people said interacting with "[f]riends, family, and other people I know" was more important on TikTok than on Instagram. Id. at 22. Indeed, Instagram is less social than the FTC thinks. In one survey, more people said they use it for entertainment than to keep up with friends and family. See Apr. 23 PM Tr. at 195:4–12.

To be fair, the totality of the survey evidence suggested that Americans considered at least Facebook and Snapchat to be more social than TikTok. But this evidence was mixed at best and, even when read charitably, at most showed a difference of degree and not one of kind.

The evidence about social norms also had problems. For one, norms can change. Sure enough, as discussed above, they have changed in ways that have brought all four social-media apps together. In addition, much of the FTC's evidence — for both surveys and norms — was outdated. See Apr. 14 PM Tr. at 153:7–154:16 (discussing post from 2006); PX 292 (Facebook S-1) at 1, 78 (statement from 2012); PX 48 (Building a Better News Feed for You Announcement) at 2 (post from 2016); PX 3431 (Facebook Research Insights Post on Understanding Value Prop of Social Apps) at 1 (survey from 2017); PX 794 (Zuckerberg Post) at 1 (post from January 2018); PX 12991 (Aug. 9, 2018, Product Territories of Family of Apps in United States Deck) at 8 (survey from July 2018); PX 12333 (Mosseri Talking Points) at 2 (talking points from January 2018); PX 14986 (Cathcart-Zuckerberg Email Thread) at 1 (email from July 2018); PX 12992 (Aug. 21, 2018, Product Territories of Family of Apps in United States Deck) at 4, 44, 73 (deck from August 2018); PX 12993 (Facebook User Goals and Intent Survey) at 1, 3 (survey from August 2018).

Lampe also conceded points that make the survey and norm evidence seem rather otiose. Were these differences ones of degree or of kind? He could not really say, having asked only

whether the apps had differences at all. See Apr. 23 PM Tr. at 160:17–161:2. Did his analysis of why people use these apps consider how they actually spend their time on them? Nope. Id. at 190:15–191:11, 193:12–194:2. Did he study how consumers would respond to changes in one app's price? "That's not a question in my field . . . , so no." Id. at 265:20–23. Did the evidence give him an opinion on whether Meta's apps compete with TikTok and YouTube? No; "[m]y field doesn't look in terms of competition." Id. at 265:9–17.

The field of antitrust law does. In it, eyeballing the apps and looking at some surveys does not produce evidence remotely as useful as examining actual consumer behavior. Turning to that question, whatever users say they are doing and whatever differences an expert might pick out between screenshots of the apps, the facts are that people spend a tiny share of their time on Meta's apps viewing content from their friends and a far greater share watching Reels. See DX 1152 (Jan. 2025 Facebook Surface Breakdown); see DX 1153 (Jan. 2025 Instagram Surface Breakdown).

Meta's apps are primarily recommendation systems hooked onto messaging tools. Their characteristics and uses are hardly peculiar.

b. Industry or Public Recognition

This factor looks at whether industry participants think that the proposed submarket really is "a separate economic entity." Brown Shoe, 370 U.S. at 325. "[E]conomic actors usually have accurate perceptions of economic realities," Rothery, 792 F.2d at 218 n.4, so if those actors think that another firm competes in or outside their own market, they are probably right. Because market definition depends on competition, courts applying this factor pay particular attention to which products and companies a firm considers its competitors. FTC v.

Staples, Inc., 970 F. Supp. 1066, 1079–80 (D.D.C. 1997); United States v. SunGard Data Sys., Inc., 172 F. Supp. 2d 172, 187–88 (D.D.C. 2001); Geneva, 386 F.3d 485 at 498.

The FTC rests on a claim that industry participants consider PSN apps a different kind of platform. That is largely true: in internal and external discussions, industry experts typically agreed that Facebook and Instagram let users keep up with friends, that TikTok and YouTube are less effective at this, and that this makes them different options. See PX 15043 (Twitter CorpDev Discussion) at 4; Apr. 28 AM Tr. at 35:1–22; Apr. 30 AM Tr. at 40:24–43:8; PX 13581 (ByteDance Resp. to European Commission) at 5–6, 8–10; DX 856 (The Magic of Reddit: Insights Report) at 10; Chandlee Dep. at 17:07–18:09, 20:21–21:16; Morrison Dep. at 190:22–192:21; Pappas Dep. at 14:10–15:10; 22:4–24:14; 88:05–89:07. That said, many industry executives make no such distinction and consider our four apps, and others, part of a single category. See DX 855 (Reddit Competitive Benchmarking Analysis) at 7 (considering market of "leading social media platforms," including Facebook, Instagram, and TikTok); DX 771 (Google Executives Email Thread) at 3 (studying "major social platforms" and including Facebook, Instagram, Snapchat, and TikTok); DX 1071 (Google Resps. to European Commission) at 5–6 (rejecting idea that there is "single industry definition of a social networking service" but saying that if there were, TikTok would be included); Apr. 24 PM Tr. at 149:6–150:5; Jonathan Chen Dep. at 19:15–21:10, 23:13–24:20, 25:16–27:07; Kumaresh Pattabiraman Deposition at 36:10–37:04; Apr. 17 PM Tr. at 198:5–199:19; 202:17–20; DX 606 (Instagram U.S. Teen Messaging Deck) at 4 (comparing Instagram and TikTok as part of single market); DX 965 (Walmart Connect Q3 Competitive Update) at 10; May 20 PM Tr. at 231:16–232:1.

Either way, whether industry experts recognize different categories of apps is not primarily the point. More important is "industry or public recognition of the submarket as a

separate economic entity," Brown Shoe, 370 U.S. at 325 (emphasis added) — that is, recognition that the submarket is its own competitive realm. See Staples, 970 F. Supp. at 1079–80 (applying this factor by asking which rivals firms considered their competition); SunGard,172 F. Supp. 2d at 187–89 (same); Geneva, 386 F.3d 485 at 498 (same); see also Reynolds Metals Co. v. FTC, 309 F.2d 223, 229 (D.C. Cir. 1962) (looking to whether firms' economic behavior, like pricing and purchasing practices, showed that they responded to putatively separate markets); Rothery, 792 F.2d at 218 n.4 (this factor susses out "economic realities").

Here, the evidence overwhelmingly shows that industry insiders think that TikTok and YouTube compete with PSN apps. Documents and testimony from these people noted this competition. See [redacted] DX 947 (X Q3 '21 Competitive Earnings Analysis) at 9 (noting "shift" in Instagram "driven by stiff competition from TikTok and YouTube"); DX 933 (TikTok 2021 July–Aug. Bimonthly Report) at 3 ("YouTube and Instagram are TikTok's most important competitors."); DX 1306 (TikTok 2025 Q1 Management Quarterly) at 3 (similar); DX 931 (TikTok Leadership Townhall) at 4 (similar); DX 917 (TikTok's Reels Post-Launch Resp.) at 2–3; Morrison Dep. at 85:4–87:9; Chandlee Dep. at 68:16–73:20, 77:10–20; Apr. 17 PM Tr. at 206:2–19 (discussing Google document saying that TikTok and YouTube compete with Facebook), 206:23–209:11; Apr. 30 AM Tr. at 108:1–109:8; Apr. 30 PM Tr. at 134:7–137:15; Pappas Dep. at 37:21–39:1; Debbie Weinstein Deposition at 241:9–242:17. TikTok and YouTube tracked Meta's products as competitive threats. See DX 766 (YouTube Quarterly Industry Update) at 5; DX 782 (YouTube Facebook Competitive Teardown); DX 917 (TikTok's Reels Post-Launch Resp.) at 2–3; DX 922 (TikTok Project Blue

Summ.) at 14; DX 932 (TikTok 2022 Mar.–Apr. Bimonthly Report) at 5; Weinstein Dep. at 336:1–338:13; Apr. 17 PM Tr. at 212:14–213:5 (YouTube executive could not recall single competitive report that omitted Facebook and Instagram). Both companies also monitored Meta's share of what they deemed the market. See DX 766 (YouTube Quarterly Industry Update) at 5; DX 768 (YouTube Quarterly Industry Deep Dive) at 6; DX 931 (TikTok Leadership Townhall) at 4; DX 932 (TikTok 2022 Mar.–Apr. Bimonthly Report) at 4–5; DX 1307 (TikTok Monthly 2025 Report) at 4–5.

Meta itself has no doubt that TikTok and YouTube compete with it. Its executives unsurprisingly testified to that belief. See Apr. 16 AM Tr at 36:13–37:10; Apr. 16 PM Tr. at 274:6–275:7; May 1 PM Tr. at 183:5–10; May 8 PM Tr. at 163:14–20, 179:2–16; May 12 AM Tr. at 62:19–63:4, 65:16–20, 68:14–69:1, 83:11–83:24; May 15 AM Tr. at 15:12–14. More persuasively, business documents created outside litigation reflect a consistent and urgent focus on TikTok's competitive threat. For instance, Zuckerberg told investors, "Competition has gotten more intense, especially with . . . the rise of TikTok which is one of the most effective competitors we have ever faced." DX 922 (TikTok Project Blue Summ.) at 22 (omission in original); see also DX 650 (May 2020 Raji Email) at 1 ("TikTok in the US is a much bigger threat to our entire family of apps."); DX 660 (IG Metric Softness Deck) at 6 ("Competition from TikTok is a big concern[.]"); DX 663 (Meta Executive Chat Thread) at 1 ("TikTock [*sic*] competition really matters . . . TikTock [*sic*] is the best competitor yet and this is what really competing feels like . . . . [W]e have the best competitor we've seen in a long way."); DX 1018

(Sep. 2020 Meta Board Meeting Deck) at 15; PX 3827 (Aug. 2022 Meta Email Thread) at 2; PX 12669 (FB App Strategy Thread) at 5.

Meta obsessively tracks TikTok's strategy and success. See, e.g., DX 535 (TikTok Headwinds on FB and IG Deck) at 14–16; May 12 AM Tr. 116:9–120:4. Schultz, Meta's Chief Marketing Officer and Vice President of Analytics, testified that he and his colleagues discussed TikTok "weekly." May 12 AM Tr. at 81:24–82:1. For example, at "every leadership dinner with Mark [Zuckerberg], like, once a month, Adam [Mosseri, the Head of Instagram,] would have to, at the beginning of the dinner, give us a full rundown of the growth of TikTok and what we were doing about Reels." Id. at 82:2–5. Put simply, "we analyze the hell out of them." Id. at 72:23–25.

The balance of the persuasive evidence, then, shows that industry participants recognize that Facebook, Instagram, and Snapchat differ from TikTok and YouTube in important ways, but it also shows that they recognize that the apps compete. The second fact is more probative of whether there is "industry . . . recognition of the submarket as a separate economic entity," Brown Shoe, 370 U.S. at 325, so this factor also weighs against the FTC's proposed market.

c. Unique Production Facilities

The next factor fits the digital world awkwardly, but its spirit asks whether firms outside the proposed market could quickly enter or whether their current production technology would need to be overhauled. See Rothery, 792 F.2d at 218 (explaining cross-elasticity of supply). In other words, how much would TikTok and YouTube need to change to produce an app like Facebook, Instagram, or Snapchat?

Not much at all. As emphasized above, the apps are already quite similar. True, to the extent that TikTok or YouTube wanted to replicate a traditional social network, they would need

lots of people using them socially to create network effects. See PX 1136 (Zuckerberg Email Exchange) at 3; PX 1204 (Facebook Top Investor Questions Talking Points) at 2–3; PX 14319 (Facebook Roadshow Talking Points) at 5; PX 15200 (May 2016 Meta Executives Email Thread) at 2; PX 11304 (Google Executives Email Thread) at 4; DX 1317 (Snapchat Board Product Update) at 2; Apr. 14 PM Tr. at 194:6–15; Apr. 16 AM Tr. at 48:15–25. Yet both apps have already achieved that scale, even if not as many users people use them to connect with people they know. See Apr. 30 AM Tr. at 65:22–25 (TikTok had over 170 million monthly active users in United States at start of this year); DDX 24.15 (App Monthly Active Users). What is more, as Meta's apps have transitioned to focus on unconnected, recommended content, the experience depends less and less on having friends who post content and view your posts. See Apr. 16 AM Tr. at 53:15–54:14; May 14 AM Tr. at 17:2–7; May 27 PM Tr. at 136:17–137:23. Instead, the key inputs are a library of content and an advanced algorithm to recommend it. TikTok and YouTube already have both.

Apps inside and outside the FTC's proposed market thus share similar raw ingredients and similar technology to build them into similar experiences. This factor cuts against the agency.

d. Distinct Customers, Prices, and Sensitivity to Price Changes

The fourth factor also favors Meta. First, the customers of its apps, YouTube, and TikTok are not distinct. "[P]eople are . . . using every app." May 12 PM Tr. at 175:18–176:4. In fact, most customers of each app are also customers of all the others. Id. at 175:11–17 (there are about 250–300 million Americans older than 13); id. at 175:8–10 (240 million Americans use Facebook each month); id. at 173:2–4 (about 225 million Americans use Instagram each month); Apr. 30 AM Tr. at 65:22–25 (more than 170 million Americans use TikTok each month); DDX

24.15 (App Monthly Active Users) (more than 200 million people in United States and Canada use YouTube each month).

The price of all these apps is identical: $0. See Apr. 15 PM Tr. at 221:22–24, 227:24–228:1. Finally, undisputed evidence suggests that if Meta tried to raise its sticker price, users would flee. Id. at 224:22–225:23; see also May 1 PM Tr. at 163:22–164:13 (almost nobody willing to pay for ad-free version).

e. Overall Assessment

The FTC contends that Facebook, Instagram, and Snapchat form a distinct market that can be identified by those apps' unique features. While those apps certainly show some distinct markings, they mostly resemble two other social-media apps that the FTC insists must be excluded: TikTok and YouTube. Their dominant features are identical, people mostly use all four to watch unconnected content that they can send in direct messages, industry participants agree that the apps belong in the same competitive market, they use similar resources and technologies, and they charge the same price to the same customers.

* * * * *

Even when considering only qualitative evidence, the Court finds that Meta's apps are reasonably interchangeable with TikTok and YouTube. Moreover, that evidence must be considered in light of the widespread substitution between these apps. The Brown Shoe factors "necessitate, rather than avoid, careful consideration based upon the entire record." Cont'l Can, 378 U.S. at 449; see also Geneva, 386 F.3d at 496 ("The emphasis always is on the actual dynamics of the market . . . ."). After all, it was Brown Shoe that declared that courts must "recognize competition where, in fact, competition exists." 370 U.S. at 326. Taking all the evidence together, it shows that personal social networking is not a separate product market.

Instead, Meta competes in the market for social media, and that market includes — at minimum — TikTok and YouTube as well.

3. *Whole Foods*

Faced with that evidence, the FTC offers one last argument: a subset of users cares especially about friend sharing, they have no substitute for Facebook and Instagram, and Meta exploits this smaller group by targeting them with a higher ad load. See FTC Post-trial Mem. at 12, 22–23. Plaintiff thinks that this makes our case like FTC v. Whole Foods Market.

In that case, the D.C. Circuit found that Whole Foods occupied a market for "premium natural and organic supermarkets" separate from conventional grocery stores. Whole Foods, 548 F.3d at 1041 (opinion of Brown, J.); id. at 1042 (Tatel, J., concurring in the judgment). Writing only for herself, Judge Janice Rogers Brown explained that while some shoppers might substitute between those premium organic stores and any old supermarket, a group of "core customers" would not, and premium organic stores like Whole Foods exploited those captive costumers by charging higher prices. Id. at 1038–40 (opinion of Brown, J.). By analogy, the FTC reasons, even if users in general might swap out time on Facebook and Instagram for time on TikTok and YouTube, a group of core Meta users wants to see content from their friends, cannot get it elsewhere, and Meta exploits that by showing them a higher ad load. See FTC Post-trial Mem. at 12, 22–23.

Never mind that Judge Brown's opinion did not command a majority. Set aside the fact that it has never been adopted by the D.C. Circuit. And ignore the obstacle that because the Whole Foods court was not statutorily authorized to decide whether the proposed merger would actually violate the antitrust laws, Judge Brown's opinion would have held only that the FTC had raised serious enough "questions going to the merits . . . as to make them fair ground for" a more

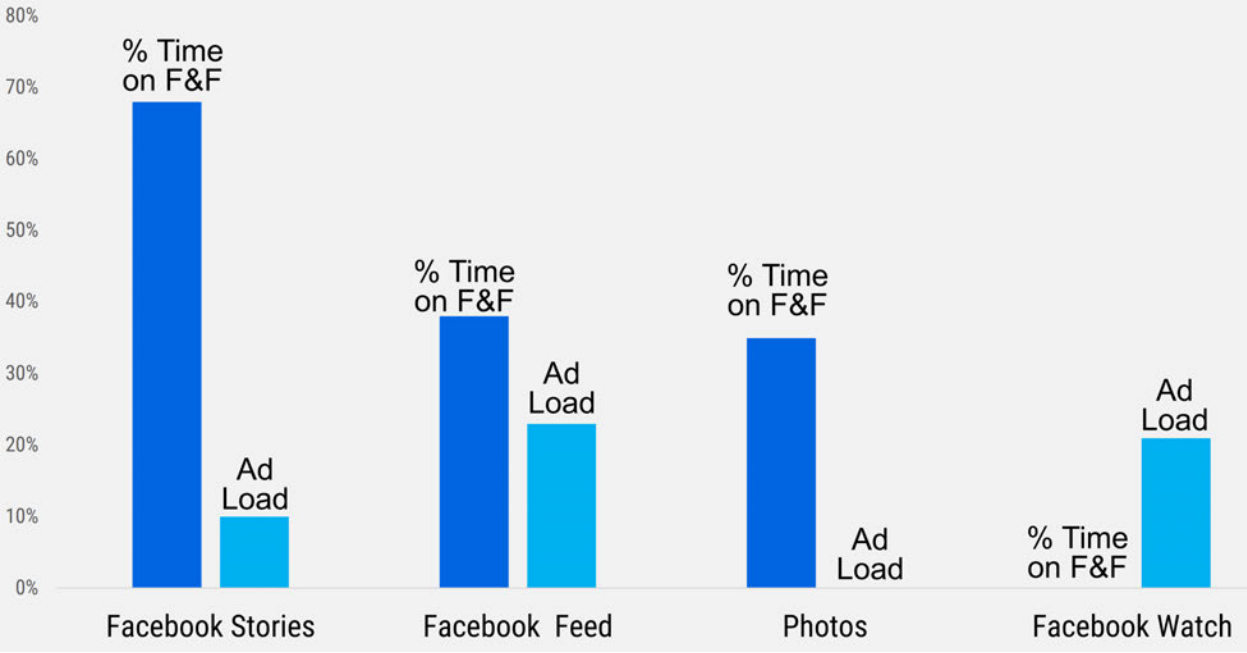
"thorough investigation." Whole Foods, 548 F.3d at 1035 (opinion of Brown, J.) (quotation marks omitted). Even on its own terms, the Whole Foods analogy does not work.

For one, the sign of a product market is that a monopolist could charge a significantly higher price. See id. at 1038. So if there were a separate market for users who cared about friend content, then that market's borders must be shown by significant differences in price. It is hard to imagine that is true here. Remember, Facebook and Instagram are free no matter how much someone values friend sharing. The FTC thus frames price discrimination as offering a lower-quality app to some users. But quality mostly does not vary across users: apps have the same features, layout, speed, reliability, and privacy practices for everyone. See May 21 AM Tr. at 72:2–13. The only aspect of quality that varies is ad load, see May 14 AM Tr. at 91:15–18, but, as discussed above, users barely seem to mind more ads. When removing ads entirely caused users to spend only 7% more time on Facebook, see May 13 AM Tr. at 50:23–51:11; May 20 AM Tr. at 36:18–23, and cutting ad load in half for the most ad-sensitive users was expected to increase their Facebook sessions by only 1%, see PX 12501 (May 2021 Meta Executives Email Thread) at 1, 3–4, it is hard to see how presumably smaller variations in ad load could possibly constitute a significant difference in price. Sure enough, Hemphill, who put forward this theory, admitted that he could not measure whether users faced significant price differences. See May 27 AM Tr. at 46:4–47:7.

The FTC's theory also fails for a more old-fashioned reason: it is contradicted by the evidence. As discussed earlier in this Opinion, Meta no doubt shows a higher ad load to some users than others. The FTC's claim, however, is that the company bases this discrimination on how much users value friend sharing. Meta's executives unanimously testified that it does not. See May 1 AM Tr. at 62:21–63:10; May 1 PM Tr. at 180:21–183:5; May 12 PM Tr. at 149:11–

150:8; May 15 AM Tr. at 24:4–8. True, Meta might achieve this effect indirectly: users who especially value seeing their friends' Facebook and Instagram posts might tolerate a higher ad load, and Meta's algorithm might sense this and show them more ads. But that account is also at odds with the record.

The FTC claims that parts of Meta's apps with more friend content have higher ad loads — for instance, Facebook's Feed has a higher ad load than Facebook Reels. See May 13 AM Tr. at 17:3–15. When comparing all features, however, there is no consistent relationship between the share of friend content and the ad load. See DX 1203 (Facebook Friend Content and Ad Load by Surface). For instance, the Facebook feature with the highest share of friend content is Stories, yet it has a lower ad load than the main Facebook Feed. Id. The feature with the lowest share of friend content is Facebook Watch; it has a higher ad load than Stories. Id.



DDX 36.30

Against this broader view, Hemphill offers only one comparison: Feed and Stories have a higher ad load than Reels. See May 13 AM Tr. at 17:2–11, 17:25–18:2; May 27 AM Tr. at 52:5–

13. Yet even that fact does not justify his conclusion. Instead, the evidence suggests that Reels has a lower ad load because it is new and Meta wants to get people using it. John Hegeman, Meta's Chief Revenue Officer, see May 1 AM Tr. at 77:18–19, explained that "when a new surface is introduced, we'll often start with a fairly low ad load, and then we'll take time to carefully figure out how can we best introduce ads in a way that doesn't disrupt the user experience." May 1 PM Tr. at 181:14–25. Meta's rivals understood its strategy this way; for example, an internal TikTok document noted that "Facebook has primarily focused on growing Reels user adoption and engagement in the short-term, rather than monetization." DX 922 (TikTok Project Blue Summ.) at 14.

That matches Meta's approach in the past — in regard to Facebook's mobile app, for instance. As people were shifting to using the platform on their phones, a company document stated that "we currently don't monetize mobile in a meaningful way." PX 1204 (Facebook Top Investor Questions Talking Points) at 11. "Our strategy . . . has always been to build the best experience for users first and drive user engagement which leads to downstream monetization opportunities and the most long-term value for our business." Id. Once the mobile app had won a foothold, Meta squeezed it for all it was worth. See May 13 AM Tr. at 13:7–19 (ad load on Facebook's mobile feed tripled from 2014 to 2022); Apr. 17 AM Tr. at 15:8–14 (Meta was "[v]ery" successful in monetizing mobile because "we first built a consumer product on mobile that they were happy with and engaging, and then we added ads in"); Apr. 16 PM Tr. at 225:17–226:25; May 12 AM Tr. at 77:2–14. Meta did the same thing with Stories. They started out with almost no ads; then Meta cranked up the ad load. See May 12 AM Tr. at 77:11–14; May 13 AM Tr. at 11:23–12:1.

In the context of that pattern, the low ad load on Reels seems linked to its novelty, not its share of friend content. Meta's ordinary-course documents reinforce this interpretation. Schultz told other Meta executives that the shift to Reels was costing Meta money because "we have to provide consumers the formats they want first and monetize second." DX 663 (Meta Executive Chat Thread) at 1. "Engagement is shifting formats to one that hasn't got significant ad load yet . . . ." Id. (emphasis added); see also May 1 PM Tr. at 181:24–25 ("[W]e expect . . . to ramp up the ad load on Reels over time."). In fact, Meta has already started raising the ad load on Reels. See May 13 AM Tr. at 17:4–6.

Facebook's Friends tab offers an almost perfect test. It is a feature that Facebook just launched that shows only content from a user's friends. See PX 796 (Friends Tab Announcement) at 2. If the FTC's price-discrimination hypothesis were right, it should be choked with ads. If Meta's story were right, this new feature's ad load should be low. The Friends tab has no ads at all. See May 15 AM Tr. at 24:9–12; see also id. at 24:14–25:3 ("[T]he friends tab is still a new product. So when we are building a new product, we . . . want to first prioritize making sure that people actually want to use the product" before ramping up ad load.). In sum, Meta's feature-level ad load does not show price discrimination against users who value friend content.

Judge Brown's Whole Foods opinion is nonbinding and tentative, and the Court doubts that marginal differences in ad load add up to significant differences in quality-adjusted price. Even setting those doubts aside, the evidence shows that Meta does not discriminate against users who value friend content. This last FTC rebuttal thus falls by the wayside.

E. Monopoly Power

In assessing Meta's monopoly power, the Court considers a market that comprises Facebook, Instagram, Snapchat, MeWe, TikTok, and YouTube. Monopoly power depends on whether the company can profitably and sustainably charge a price significantly above competitive levels. Microsoft, 253 F.3d at 51. Courts typically use the defendant's market share as an observable proxy for that unobservable fact. See Reazin v. Blue Cross & Blue Shield of Kan., Inc., 899 F.2d 951, 967 (10th Cir. 1990). The Court first explains how it will measure market share in this novel market, then evaluates whether Meta's share shows monopoly power.

1. *Measuring Market Share*

When companies sell a product for a price, calculating their market share is straightforward. Because the apps in this case are free, however, measuring their market share is trickier. The obvious candidates are total time spent on each app or total users, which in turn can be measured as daily or monthly active users.

In the Court's view, the best single measure of market share is total time spent. For one, that statistic makes the most analytic sense. Because Facebook, Instagram, Snapchat, TikTok, and YouTube are all free, people often use all five apps, which pulls each one's market share toward an uninformative tie. See May 12 PM Tr. at 175:18–176:4. Measuring the market by number of users, then, would ensnare the Court in a mess of double counting. Id. Time spent avoids this problem. It also captures the intensity of use: if someone spends two minutes on Instagram and two hours on TikTok, she should not count as an equal user of each.

Plus, time spent is the best proxy for what drives these apps' revenue: ads. The more time someone spends on an app, the more ads it can show him, and the more money it will make. See Apr. 17 AM Tr. at 11:17–21; May 8 PM Tr. at 265:21–266:3 ("[W]e show a certain number

of ads per hour and if you have less hours, you show less ads."); May 15 PM Tr. at 257:6–8 ("The longer time you spend on the app, the more ads you might be served and the more money these services might make."); May 21 PM Tr. at 154:20–155:2; PX 12664 (Meta Project Bluejay Update) at 7, 54.

It also matches how the companies themselves think about competition. Their executives' testimony and ordinary-course documents reveal that they understand themselves to be competing for users' time, not competing to get people to use their app at all. See May 1 PM Tr. at 182:18–24 (people are "unlikely to stop using [Facebook or Instagram] altogether"; they will just spend less time on the app "even in a case where they wouldn't choose to stop using the product entirely"); May 12 PM Tr. at 175:21–176:4 ("TikTok, YouTube, Facebook, and Instagram in the U.S." have all signed up most Americans already, so "the competition is about marginal time."); Chen Dep. at 21:13–19 (Q: "[W]hat did Twitter compete with Facebook over? What was the point of competition between the two companies?" A: "I would say we competed over the time share of people or users on consumer social platforms."), 24:21–25:03, 27:09–11; DX 885 (2022 Snapchat Stories Research Deck) at 2, 7, 21; [redacted]

In addition, time spent reflects how users themselves experience the relevant choice: they typically have multiple free apps, so the choice they face — when they are bored in line, sitting on their couch, or early to a date — is which app they will pop open and how long they will use it before switching to another.

Unsurprisingly, then, the companies themselves most often measure their market share using total time spent. See May 8 PM Tr. at 205:4–12 ("[W]e use time . . . as the best measure

of how well we are fairing [*sic*] relative to the competition."); see also, e.g., DX 606 (Instagram U.S. Teen Messaging Deck) at 4; DX 643 (Reels Summary Deck) at 4–5; DX 875 (Snapchat Email Thread) at 1–2; DX 922 (TikTok Project Blue Summ.) at 1–2; DX 1307 (TikTok Monthly 2025 Report) at 4.

Yet time spent is an imperfect yardstick. Most obviously, it takes longer to watch a video than to scroll through a picture, so measuring market shares using time spent overestimates the competitive importance of video apps like YouTube. See Apr. 23 PM Tr. at 162:12–23; May 13 AM Tr. at 39:3–7; see also DX 1152 (Jan. 2025 Facebook Surface Breakdown) (showing difference between time spent and pieces of content viewed). While these apps predominantly measure their market share using time spent, they all also consider other measures, most often daily and monthly average users. See May 8 PM Tr. at 207:14–24 ("Time spent is the best metric that we have to measure our relevance relative to the competition," but "we have always . . . also looked at other metrics. I think it's important . . . that you don't try to oversimply all the way down to just one metric."); Apr. 22 AM Tr. at 29:12–30:11; DX 600 (Facebook U.S. Long-Term Themes Deck) at 12; DX 660 (IG Metric Softness Deck) at 4; DX 830 (Pinterest Competitive Assessment) at 16; DX 875 (Snapchat Email Thread) at 1–2; DX 888 (Dec. 2021 Snapchat Board Meeting Update on Stories) at 2; DX 1306 (TikTok 2025 Q1 Management Quarterly) at 3.

The Court follows their lead, using time spent as the most informative measure of market share but also checking it against daily and monthly average users to take a holistic view of these apps' size.

2. *Meta's Market Share and Market Power*

As established above, the FTC must prove that Meta is a monopoly now. So where it can, the Court calculates market share using the latest available data from 2025.

The FTC concedes that Snapchat and MeWe belong in a product market with Facebook and Instagram. See FTC Post-trial Findings of Fact, ¶¶ 33, 40; FTC Post-trial Mem. at 8. Adding in TikTok and YouTube, Meta's share of that market comes out to around 30% of time spent. See DX 1185 (Apps Time Spent in 2022); DDX 24.14 (Apps Time Spent in Feb. 2025). As a matter of law, that modest share cannot establish monopoly power. United States v. Aluminum Co. of Am. (Alcoa), 148 F.2d 416, 424 (2d Cir. 1945) (Hand, J.) ("certainly thirty-three percent is not enough" market share for monopoly power); Blue Cross, 65 F.3d at 1411 (market share under 50% is "below any accepted benchmark for inferring monopoly power from market share"); Rebel Oil Co. v. Atl. Richfield Co., 51 F.3d 1421, 1438 (9th Cir. 1995); Bailey, 284 F.3d at 1250; U.S. Steel, 251 U.S. at 444.

To be fair, while the case for including TikTok in the product market is overwhelming, YouTube's inclusion, which the Court finds appropriate, is concededly more debatable. Yet even if YouTube is excluded, Meta still would not hold a monopoly. That would leave Facebook, Instagram, Snapchat, MeWe, and TikTok. As measured by Hemphill, as of 2025, Meta's share of time spent in that market is only 54%. See PDX 149 (Hemphill Rebuttal Demonstrative) at 47. Its share of monthly average users is 59%, while its share of daily average users is 62%. Id. When measured using third-party data that Meta ordinarily relies on in its business, Meta's share of time spent falls to 42%, and its share of daily active users dips to 56%. See DDX 24.14 (Apps Usage Data); May 12 AM Tr. at 116:9–22; but see DDX 24.14 (Apps

Usage Data) (footnotes listing several inaccuracies in this data, which cause the Court to give it less weight).

Even the market shares calculated by Hemphill do not win the day for the FTC. There is no threshold that a firm must cross to hold a monopoly. Kolon Indus. Inc. v. E.I. DuPont de Nemours & Co. (Kolon II), 748 F.3d 160, 174 (4th Cir. 2014). But courts that have surveyed the caselaw have found helpful guideposts. For instance, "the Supreme Court has never found a party with less than 75% market share to have monopoly power." Id.; accord Dimmitt Agri Indus., Inc. v. CPC Int'l Inc., 679 F.2d 516, 528 & n.11 (5th Cir. 1982). Lower courts have not lowered the bar much. See Colo. Interstate Gas Co. v. Nat. Gas Pipeline Co. of Am., 885 F.2d 683, 694 n.18 (10th Cir. 1989) ("[L]ower courts generally require a minimum market share of between 70% and 80%."); Exxon Corp. v. Berwick Bay Real Estate Partners, 748 F.2d 937, 940 (5th Cir. 1984) (Fifth Circuit "has noted that monopolization is rarely found when the defendant's share of the relevant market is below 70%"); E.I. du Pont de Nemours & Co. v. Kolon Indus., Inc. (Kolon I), 637 F.3d 435, 450 (4th Cir. 2011) ("[W]hen monopolization has been found the defendant controlled seventy to one hundred per cent of the relevant market.") (internal quotation marks omitted); Image Tech. Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1206 (9th Cir. 1997) ("Courts generally require a 65% market share to establish a prima facie case of market power.").

The canonical statement on the relationship between market shares and monopoly remains Judge Learned Hand's opinion in Alcoa, which declares that "it is doubtful whether sixty or sixty-four percent [market share] would be enough [for monopoly power]." 148 F.2d at 424. The Supreme Court, moreover, has held that a firm with 64% market share lacked monopoly power. United States v. Int'l Harvester Co., 274 U.S. 693, 709–10 (1927); see also

Alcoa, 148 F.2d at 430 (understanding International Harvester as holding that defendant was not monopoly because it "had less than two-thirds of the production in its hands").

Nothing, in short, suggests that a market share of 54% produces monopoly power, even if the Court nudges the figure upward in light of Meta's roughly 60% share of active users. See PDX 149 (Hemphill Rebuttal Demonstrative) at 47. Indeed, many cases expressly hold the contrary. Kolon II, 748 F.3d at 174 ("market share of less than 60% during the relevant period does not necessarily foreclose a finding of monopoly power," but "it does weigh heavily against such a finding"); Fineman v. Armstrong World Indus., Inc., 980 F.2d 171, 201 (3d Cir. 1992) ("As a matter of law, absent other relevant factors, a 55 percent market share will not prove the existence of monopoly power."); Kolon II, 748 F.3d at 174 (market share that had fallen to 55%, along with other factors, not enough for monopoly power); Exxon, 748 F.2d at 939–40 (52% share not monopoly power as matter of law).

Of course, market shares must be considered in the context of each case's facts. United States v. Columbia Steel Co., 334 U.S. 495, 528 (1948). Here, that context weighs even further against finding monopoly power.

First, Meta's market share is falling. "[I]n evaluating monopoly power, it is not market share that counts, but the ability to maintain market share." United States v. Dentsply Int'l, Inc., 399 F.3d 181, 188–89 (3d Cir. 2005) (cleaned up). A given market share is thus less likely to add up to a monopoly if it is eroding. Winn-Dixie Stores, Inc. v. E. Mushroom Mktg. Coop., Inc., 89 F.4th 430, 445 (3d Cir. 2023); Kolon II, 748 F.3d at 174–75.

Meta has suffered that fate. TikTok — which Meta considers its fiercest competitor — broke into the market only seven years ago, see Apr. 30 AM Tr. at 32:17–18, and has been overrunning the market ever since. At least some usage data finds that it is more popular in the

United States and Canada than either Facebook or Instagram. See DDX 24.14 (Apps Usage Data) (estimating that TikTok commands more daily active users than Instagram and more total time spent than either of Meta's apps). Unsurprisingly, then, Meta's market share seems to be shrinking. Compare DDX 36.3 (Carlton Demonstrative) (estimating Meta's share of market that includes TikTok as 58% in 2022), with PDX 149 (Hemphill Rebuttal Demonstrative) at 47 (estimate had fallen to 54% in 2025). If "[m]onopoly power is the power to control prices or exclude competition," du Pont, 351 U.S. at 391, then that power seems to have slipped from Meta's grasp.

Plus, Meta's true share of this market is almost certainly below 54%. In the real world, competition is a matter of degree. But market definition is binary, forcing courts to artificially place products entirely in or out of the market. See Areeda & Hovenkamp, ¶ 801, at 429–30. As a result, every product market — and so every market share — is mismeasured, and courts must make realistic adjustments for the weak substitutes that barely squeaked into the market or the competitive ones lying just outside. See id. at 427, 429–30; Kodak, 504 U.S. at 466–67 ("Legal presumptions that rest on formalistic distinctions rather than actual market realities are generally disfavored in antitrust law."). Here, even if YouTube should be excluded from the market, it remains a behemoth that offers some alternative to Meta's apps. A market share calculated by entirely excluding it thus overestimates Meta's power.

The Court ultimately finds that YouTube and TikTok belong in the product market, and they prevent Meta from holding a monopoly. Even if YouTube is out, including TikTok alone defeats the FTC's case.

III. Conclusion

Like Heraclitus's river, the rapids of social media rush along so fast that the Court has never even stepped into the same case twice. It considered motions to dismiss in 2021 and 2022, motions for summary judgment in 2024, and a full merits trial this year. Each time it examined Meta's apps, they had changed. The competitors had, too. The Court's two Opinions on motions to dismiss did not even mention the word "TikTok." Today, that app holds center stage as Meta's fiercest rival.

With apps surging and receding, chasing one craze and moving on from others, and adding new features with each passing year, the FTC has understandably struggled to fix the boundaries of Meta's product market. Even so, it continues to insist that Meta competes with the same old rivals it has for the last decade, that the company holds a monopoly among that small set, and that it maintained that monopoly through anticompetitive acquisitions. Whether or not Meta enjoyed monopoly power in the past, though, the agency must show that it continues to hold such power now. The Court's verdict today determines that the FTC has not done so. A judgment so stating shall issue this day.

/s/ *James E. Boasberg*
JAMES E. BOASBERG
Chief Judge

Date: December 2, 2025