

No. 26-5023
(Consolidated with Nos. 26-5047 & 26-5049)

United States Court of Appeals
for the District of Columbia Circuit

UNITED STATES OF AMERICA, *ET AL.*,
Plaintiffs-Appellees-Cross-Appellants,

v.

GOOGLE LLC,
Defendant-Appellant-Cross-Appellee.

On Appeal from the United States District Court
for the District of Columbia, Nos. 20-cv-3010 & 20-cv-3715
Hon. Amit P. Mehta

**BRIEF OF LAW & ECONOMICS SCHOLARS AS *AMICI CURIAE*
IN SUPPORT OF DEFENDANT-APPELLANT-CROSS-
APPELLEE GOOGLE LLC**

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Rule 28(a)(1) of the United States Court of Appeals for the District of Columbia Circuit, counsel for *amici curiae* Law & Economics Scholars certifies as follows:

A. Parties and Amici

Except for the following Law & Economics Scholars, all parties, intervenors, and amici appearing before the District Court and in this Court are listed in the Brief for Appellant-Cross-Appellee Google LLC:

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B. Rulings Under Review

References to the rulings at issue in the appeal are listed in the Brief for Appellant-Cross-Appellee Google LLC.

C. Related Cases

The related cases are listed in the Brief for Appellant-Cross-Appellee Google LLC.

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rules 26.1 and 29(b), *amici curiae* certify that none of *amici* have any parent corporations and that no publicly held company owns 10% or greater ownership in any of *amici*.

TABLE OF CONTENTS

	Page
CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES.....	i
CORPORATE DISCLOSURE STATEMENT.....	iii
TABLE OF AUTHORITIES	vi
GLOSSARY OF ABBREVIATIONS	viii
STATUTES AND REGULATIONS	ix
IDENTITY AND INTEREST OF <i>AMICI CURIAE</i>	1
STATEMENT REGARDING AUTHORSHIP, FINANCIAL CONTRIBUTIONS, AND CONSENT TO FILE.....	1
INTRODUCTION AND SUMMARY OF ARGUMENT	2
ARGUMENT.....	6
I. Liability Rests on Legal and Economic Errors That Improperly Expand the Reach of Section 2	6
A. The “Reasonably Appears Capable” Standard Is a Narrow Exception, Not the General Rule of Section 2 Causation.....	6
B. The Record Below Does Not Indicate Exclusivity or Foreclosure.....	9
1. The Agreements Were Not Exclusive, and a “Single Default” Was Apple’s and Mozilla’s Product-Design Choice.....	10
2. Post-Hoc Query Share Is Not Foreclosure.....	12
3. The Trial Record’s Only Counterfactual Estimate Is Inconsistent with the Foreclosure Finding.....	14
4. The Natural Experiments the Court Cites Also Refute Its Foreclosure Claim.....	15
5. Users Choose Google Even Where Rivals Are Equally Accessible	17
C. Bing’s Share Was a Consequence of Microsoft’s Strategic Choices	19

1.	The District Court Found That Microsoft’s Mobile Failure Was Its Own.....	20
2.	Microsoft Demanded Distribution Before It Would Invest in Quality	21
3.	Apple’s Selection of Google Was a Textbook “Make-or-Buy” Decision	22
D.	The District Court Applied Inconsistent Causation Standards Within a Single Opinion	23
E.	The District Court’s Position Would Undermine Promotional Distribution and Investment Recoupment	25
II.	The Remedies Order Exceeds the Limits <i>Microsoft</i> and <i>Trinko</i> Impose.....	28
A.	<i>Microsoft</i> Requires a “Significant Causal Connection” the Record Cannot Support	28
B.	<i>Trinko</i> Applies to Remedies, Not Just to Liability	30
C.	The Empirical Track Record of Section 2 Remedies Counsels Restraint.....	33
D.	The GenAI Extension Highlights the Static-Analysis Problem	34
	CONCLUSION.....	35
	CERTIFICATE OF COMPLIANCE	37
	CERTIFICATE OF SERVICE	38

TABLE OF AUTHORITIES

CASES

<i>Massachusetts v. Microsoft</i> , 373 F.3d 1199 (D.C. Cir. 2004).....	5, 32, 35
<i>Matsushita Elec. Industrial Co. v. Zenith Radio Corp.</i> , 475 U. S. 574 (1986).....	6
<i>NCAA v. Alston</i> , 594 U.S. 69 (2021).....	5, 30
<i>New York v. Meta Platforms, Inc.</i> , 66 F.4th 288 (D.C. Cir. 2023).....	3, 10
* <i>Rambus Inc. v. FTC</i> , 522 F.3d 456 (D.C. Cir. 2008)....	2, 4, 7, 8, 9, 15, 35
<i>Standard Oil Co v. United States</i> , 337 U.S. 293 (1949).....	12
<i>United States v. Dentsply International, Inc.</i> , 399 F.3d 181 (3d Cir. 2005).....	19
<i>United States v. Google LLC</i> , 747 F.Supp.3d 1 (2024).....	2, 3, 4, 8, 10, 12, 15, 16, 17, 19, 20, 21, 24, 28, 31
<i>United States v. Google LLC</i> , 803 F.Supp.3d 18 (2025).....	35
* <i>United States v. Microsoft Corp.</i> , 253 F.3d 34 (D.C. Cir. 2001).....	2, 4, 5, 6, 7, 8, 15, 18, 19, 22, 24, 28, 32, 35, 36
* <i>Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP</i> , 540 U.S. 398 (2004).....	5, 6, 31, 32, 36

* Authorities upon which we chiefly rely are marked with an asterisk.

STATUTES AND RULES

15 U.S.C. § 2.....	6
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OTHER AUTHORITIES

Benjamin Klein & Joshua D. Wright, <i>The Economics of Slotting Contracts</i> , 50, J. L. & Econ. 421 (2007).....	26
Benjamin Klein & Kevin M. Murphy, <i>Exclusive Dealing Intensifies Competition for Distribution</i> , 75 Antitrust L. J. 433 (2008).....	12
Brief for the United States and FTC as Amici Curiae, <i>Epic Games, Inc. v. Google LLC</i> , No. 24-6274 (9th Cir. Oct. 26, 2024).....	30
Douglas H. Ginsburg & Koren Wong-Ervin, <i>Challenging Consummated Mergers Under Section 2</i> , CPI North America Column (May 25, 2020)...	7
Geoffrey A. Manne, <i>Error Costs in Digital Markets</i> , in <i>The Global Antitrust Institute Report on the Digital Economy</i> (Joshua D. Wright & Douglas H. Ginsburg eds., 2020).....	27
Howard P. Marvel, <i>Exclusive Dealing</i> , 25 J. L. & Econ. 1 (1982).....	12
Hunt Allcott, et al., <i>Sources of Market Power in Web Search: Evidence from a Field Experiment</i> , NBER Working Paper 33410 (Jan. 2025; revised. Feb. 2026), https://doi.org/10.3386/w33410	29
Joshua D. Wright, <i>Moving Beyond Naïve Foreclosure Analysis</i> , 19 Geo. Mason L. Rev. 1163 (2012).....	13
Robert W. Crandall & Kenneth G. Elzinga, <i>Injunctive Relief in Sherman Act Monopolization Cases</i> , in 21 RESEARCH IN LAW & ECONOMICS 277 (John B. Kirkwood ed., 2004).....	33
Robert W. Crandall, <i>The Failure of Structural Remedies in Sherman Act Monopolization Cases</i> , 80 Or. L. Rev. 109 (2001).....	33
Thomas G. Krattenmaker & Steven C. Salop, <i>Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price</i> , 96 Yale L.J. 209 (1986).....	13

GLOSSARY OF ABBREVIATIONS

The following abbreviated terms are used in this brief:

API	Application Programming Interface
GenAI	Generative Artificial Intelligence
GSE	General Search Engine
OEM	Original Equipment Manufacturer
SVP	Specialized Vertical Provider

STATUTES AND REGULATIONS

All applicable statutes and regulations are listed in the Brief for Appellant-Cross-Appellee Google LLC.

IDENTITY AND INTEREST OF *AMICI CURIAE*

Amici, listed above in the Certificate as to Parties, are Law & Economics Scholars whose research and teaching address antitrust law and its economic foundations. *Amici*'s scholarship addresses the questions on which this appeal turns: how courts should distinguish competition on the merits from unlawful exclusion, how foreclosure ought to be measured in markets with differentiated products and dynamic competition, and how Section 2 remedies should be designed given courts' institutional limits and the asymmetric costs of error.

Amici share an interest in ensuring that antitrust law promotes the public interest by remaining grounded in rules informed by sound economics. *Amici* submit this brief to assist the Court in evaluating economic issues directly relevant to this appeal.

STATEMENT REGARDING AUTHORSHIP, FINANCIAL CONTRIBUTIONS, AND CONSENT TO FILE

Under FRAP 29(c), *amici curiae* state that no party's counsel authored this brief in whole or in part, and no party or its counsel made a monetary contribution intended to fund the preparation or submission of this brief. No person other than *amici* contributed money that was intended to fund preparing or submitting the brief.

Under FRAP 29(a)(2), all parties have consented to the filing of this *amicus* brief.

INTRODUCTION AND SUMMARY OF ARGUMENT

The district court found Google liable for monopolization on a theory that Google’s default-placement agreements were exclusive dealing arrangements that denied “rivals access to user queries, or scale, needed to effectively compete.” *United States v. Google LLC*, 747 F.Supp.3d 1, 159 (2024) (“*Google*”). The court inferred “exclusivity” from market share and measured “foreclosure” by the share of queries covered by those agreements. It should instead have assessed the actual effects of the agreements against a counterfactual: the competitive state of affairs that likely would have come about absent the agreements. The result is a Section 2 holding that condemns conduct on the basis of consumer choice, not consumer coercion.

These shortcomings flowed from a misreading of this Court’s precedents on causation and anticompetitive effects in Section 2 cases under *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (“*Microsoft*”), and *Rambus Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008) (“*Rambus*”).

First, Google's agreements are not exclusive. They contain no exclusivity provision. *Google*, 747 F.Supp.3d at 147. Apple and Mozilla were free to distribute and promote rival GSEs, and they did. *Id.* at 148; *see also, id.* at 44, 48. Under this Court's decision in *New York v. Meta Platforms, Inc.*, 66 F.4th 288, 304 (D.C. Cir. 2023) ("*Meta Platforms*"), the exclusive-dealing inquiry ought to have ended there. The district court nonetheless treated the agreements as *de facto* exclusive because Google won the single default slots Apple and Mozilla independently chose in designing their browsers. The asserted "exclusivity" thus originates not with Google's conduct but with third parties' product-design decisions and their independent selection of Google as the default because consumers preferred its GSE.

Even within the 35% of Apple queries that flow through *non-default* access points, the overwhelming share still goes to Google. *Google*, 747 F.Supp.3d at 44. That is revealed consumer preference, not foreclosure.

Second, the 50% foreclosure inference is a category error. Counting query *coverage* cannot establish foreclosure; it does not measure the *harmful effect of the conduct at issue*. The proper measure is *but-for* foreclosure: the incremental reduction in rivals' market access caused by

the challenged conduct. *See Microsoft*, 253 F.3d at 78–79; *Rambus*, 522 F.3d at 466–67. The only counterfactual estimate in the trial record is Plaintiffs’ own choice-screen analysis, which puts the incremental effect of removing defaults at *under one percent*. Liab. Tr. 6046:6–19 (Whinston) (acknowledging that over 90% of U.S. consumers would select Google if presented with a choice screen). *See also* Liab. Tr. 9720:9–12 (Murphy); 9721:18–20 (Murphy); Liab. Tr. 299:23–300:5 (Closing). The natural experiments the court itself credited—Mozilla’s 2016 default switch, the Windows desktop, and vertical search—also indicate trivial effects. *Google*, 747 F.Supp.3d at 48, 60, 97.

The district court found that “Google’s superior product quality rests in part on its numerous innovations over the years.” *Id.* at 56. Microsoft’s own witnesses testified that Microsoft refused to invest in mobile-search quality without a guaranteed default placement, confirming that Bing’s smaller share is at least partly due to Microsoft’s strategic choices, not Google’s contracts. Liab. Tr. 10029:23–10030:5 (Parakhin); *Google*, 747 F.Supp.3d at 166. The DOJ’s economic expert conceded that “the queries that those arrangements cover is not an

economically sensible measure of foreclosure.” Liab. Tr. 6086:3–13 (Whinston). Yet the district court adopted exactly that measure.

Third, the remedies order compounds the liability error. The order imposes data-transfer and syndication obligations that *Microsoft* permits only on a “clear ‘indication of a significant causal connection between the conduct enjoined or mandated and the violation found,’” 253 F.3d at 105, and that *Trinko* and *Alston* proscribe because courts are ill-suited to act as “central planners” over complex, evolving markets. *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408, 414–15 (2004) (“*Trinko*”); *NCAA v. Alston*, 594 U.S. 69, 102–03 (2021) (“*Alston*”). This Court has already vacated a comparable royalty-free sharing obligation as confiscatory. *Massachusetts v. Microsoft*, 373 F.3d 1199, 1230–31 (D.C. Cir. 2004).

Distinguishing competition on the merits from anticompetitive exclusion can be challenging, but it is critical to effective Section 2 enforcement. As the Supreme Court has recognized, “[m]istaken inferences and the resulting false condemnations ‘are especially costly, because they chill the very conduct the antitrust laws are designed to

protect.” *Trinko*, 540 U.S. at 414 (quoting *Matsushita Elec. Industrial Co. v. Zenith Radio Corp.*, 475 U. S. 574, 594 (1986)). “The cost of false positives counsels against an undue expansion of § 2 liability.” *Id.*

Further, the costs of getting the remedies wrong—including durable losses to investment incentives, distorted competition among rivals, and ongoing judicial micro-management of evolving markets—are large, irreversible, and supported by an empirical track record stretching back decades. The *benefits*, by contrast, depend on causal inferences the trial record does not support. The liability holding should be reversed and the remedies order vacated.

ARGUMENT

- I. **Liability Rests on Legal and Economic Errors That Improperly Expand the Reach of Section 2**
 - A. **The “Reasonably Appears Capable” Standard Is a Narrow Exception, Not the General Rule of Section 2 Causation**

The district court treated *Microsoft*’s “reasonably appear[s] capable of making a significant contribution” language, 253 F.3d at 79, as a freestanding Section 2 causation standard applicable in any monopolization case. It is not. The *Microsoft* formulation arose in a special case: the threat posed by a nascent competitor (Netscape) whose

trajectory was inherently unknowable, and where the defendant's conduct had already been found to have anticompetitive effects in a distinct, if related, market. 253 F.3d at 78–80. As Judge Douglas Ginsburg and Koren Wong-Ervin have observed, *Microsoft* held that the plaintiff “must demonstrate that the monopolist’s conduct indeed has the requisite anticompetitive effect,” and this Court “went on to devote fully 20 pages to a careful analysis of the actual effects of each type of Microsoft’s allegedly anticompetitive conduct.” Douglas H. Ginsburg & Koren Wong-Ervin, *Challenging Consummated Mergers Under Section 2*, CPI North America Column 2 (May 25, 2020). The relaxed, “edentulous” standard was a limited response to the special difficulty of predicting the competitive consequences of a novel technology in a different market, not a general substitute for the causation and competitive-effects inquiries Section 2 ordinarily requires.

This Court restated the general rule in *Rambus*: The plaintiff must prove that *the defendant’s conduct* caused the alleged harm. 522 F.3d at 466–67. That Rambus’s deception made monopolization “somewhat more likely” was insufficient where the FTC had not shown that the standard-

setting organization would have acted differently but-for Rambus's conduct. *Id.* at 464.

The district court distinguished *Rambus* on the ground that it involved standard-setting deception not present here. *Google*, 747 F.Supp.3d at 153. But that is a distinction without a relevant difference. *Rambus* applies precisely where, as here, competitive alternatives are established and well understood, and the but-for world is relatively amenable to analysis. Neither deception nor standard setting is material to the fundamental principle this Court recognized in *Microsoft* and *Rambus*: “the plaintiff, on whom the burden of proof of course rests . . . must demonstrate that the monopolist’s conduct indeed has the requisite anticompetitive effect.” *Microsoft*, 253 F.3d at 58 (internal citations omitted).

A Section 2 standard satisfied by mere “capability” cannot meaningfully distinguish competition on the merits from unlawful exclusion. Any distribution agreement with a leading firm is *capable* of contributing to that firm’s dominant position. Successful procompetitive endeavors including both product innovation and effective marketing are, by definition, those that improve a firm’s position at the expense of its

competitors. Under the district court’s standard, no exclusive or quasi-exclusive distribution agreement could ever be lawful, no matter its actual competitive effect. *Microsoft* and *Rambus*, taken together, foreclose that result.

B. The Record Below Does Not Indicate Exclusivity or Foreclosure

The economic implications of treating coverage as foreclosure are so obvious that the DOJ’s own economic expert acknowledged the correct standard. On cross-examination Professor Whinston conceded that “the queries that those arrangements cover is not an economically sensible measure of foreclosure,” Liab. Tr. 6086:3–13 (Whinston), and agreed that “the likely competitive effects of Google’s behavior . . . is ideally examined relative to a but-for world.” Liab. Tr. 6085:9–19 (Whinston). Yet the district court adopted exactly that measure.

The exclusivity and foreclosure questions are doctrinally distinct, but the decision below conflates them. The district court treated Google’s agreements as *de facto* exclusive because of the share of queries they covered. Then it treated that coverage figure as a 50% foreclosure finding. Both moves are economically unsound, and they are refuted by the trial record.

1. The Agreements Were Not Exclusive, and a “Single Default” Was Apple’s and Mozilla’s Product-Design Choice

An exclusive-dealing theory “fails as a matter of law” where the challenged conduct “leaves [counterparties] entirely free to” deal with the monopolist’s competitors. *Meta Platforms*, 66 F.4th at 304. The challenged agreements here “contain[] no express exclusivity provision.” *Google*, 747 F.Supp.3d at 147. Apple and Mozilla were free to distribute and promote rival GSEs, and they did. *See id.* at 148 (browsers “free to navigate to Google’s rivals through non-default search access points”); *id.* at 48 (Safari Favorites page displays “preloaded icons to access Google, Bing, and Yahoo”); *id.* at 44 (Firefox’s “this time, search with” feature offers Bing, DuckDuckGo, and others, at the query-bar level). That should have ended the exclusive-dealing inquiry. *See Meta Platforms*, 66 F.4th at 304.

The district court nonetheless treated the agreements as *de facto* exclusive on the ground that browser defaults amounted to the *best* method of GSE distribution. *Google*, 747 F.Supp.3d at 120 (“Google controls the most efficient and effective channels of distribution for GSEs.”). But that misidentifies the source of the asserted “exclusivity.”

Apple and Mozilla both chose single-default architectures—design choices made independently of and prior to the Google default-placement agreements.

The court’s own findings credit this design rationale, noting that “OEMs recognize that preloading more than one of the same search access points, especially in similar prominent positions, is a suboptimal design that would degrade the user experience.” *Id.* at 99; see *also id.* at 99–100 (quoting testimony from Microsoft that two search-access points on the same device would be “really confusing” and “wouldn’t be a good product for the user”).

Even if a single-default architecture creates a winner-take-all promotional slot, Google’s winning the competition for that slot is not unlawful exclusion; it resulted from the kind of competition antitrust law affirmatively encourages. The district court’s reasoning suggests a paradoxical requirement: the only firm that could lawfully occupy Apple’s default slot is one whose offer Apple would have rejected, because any offer Apple accepted would, by definition, have produced the “exclusivity” the district court deemed actionable.

Exclusive dealing is often “of economic advantage to buyers as well as to sellers, and thus indirectly of advantage to the consuming public.” *Standard Oil Co v. United States*, 337 U.S. 293, 306 (1949). That is, it is frequently procompetitive. *See, e.g.*, Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 75 *Antitrust L. J.* 433 (2008); Howard P. Marvel, *Exclusive Dealing*, 25 *J. L. & Econ.* 1, 6–11 (1982). *Anticompetitive* exclusion is conduct that forecloses competitors to such an extent that they cannot achieve minimally efficient scale (that is, the scale at which they can effectively compete). No such finding was made here.

2. Post-Hoc Query Share Is Not Foreclosure

Independent of exclusivity, the district court’s 50% foreclosure finding rests on a single outcome that fails to establish actual foreclosure. “50% of all queries in the United States are run through the default search access points covered by the challenged distribution agreements.” *Google*, 747 F.Supp.3d at 152; *see also id.* at 157. That does not establish the degree of foreclosure, however, because it fails to estimate the share of searches that would have flowed through Google *absent* the agreements. It is merely a post-hoc counting of the share of distribution

subject to the challenged contracts, without assessing what it would have been in the but-for world. *See generally* Joshua D. Wright, *Moving Beyond Naïve Foreclosure Analysis*, 19 Geo. Mason L. Rev. 1163 (2012).

The 50% coverage figure is consistent with two critically distinct states of affairs: one in which consumers use Google because they cannot easily access alternatives, and one in which consumers choose Google because they prefer it, and distributors set Google as the default because consumers prefer it. The district court simply failed to distinguish these alternatives. And the latter possibility better fits the trial record.

The proper measure is the “net foreclosure rate”; that is, “the percentage of the suppliers’ capacity that was available to rivals before the . . . agreement was adopted but that is no longer available as a result of the agreement.” Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals’ Costs to Achieve Power Over Price*, 96 Yale L.J. 209, 259 (1986). That measure answers what Section 2 requires: *how much* did the challenged conduct constrict rivals’ access to the market?

The point matters especially in differentiated product markets like search. Where rivals offer differentiated products, default placement

plays a more limited role than it does for commodities, because consumer preference can dominate the marginal switching decision. The district court's reasoning would apply only if rivals offered indistinguishable substitutes—only, that is, if consumers presented with a Bing default would inevitably stick with Bing. The court's own findings on consumer switching behavior, discussed below, indicate otherwise.

3. The Trial Record's Only Counterfactual Estimate Is Inconsistent with the Foreclosure Finding

The trial record contains one counterfactual estimate of the marginal foreclosure effect of the challenged agreements: an analysis by the Plaintiffs' own expert in which all defaults covered by Android agreements were switched to a choice screen (entailing no default selection). He found that that less than one percent of U.S. market share would shift to rival GSEs. Liab. Tr. 6046:3–19 (Whinston); Liab. Tr. 6091:3–21 (Whinston).

As Google's expert summarized it, “switching . . . the Google defaults to a choice screen, [has] very little effect, and . . . it's extremely small.” Liab. Tr. 9720:9–12 (Murphy). The agreements, he explained, “relative to a world without defaults, have a relatively small impact on

rivals.” *Id.* at 9721:18–20 (Murphy). Google’s counsel quantified the analysis at closing: “what’s the incremental share shift? 0.9 percent is the answer.” Liab. Tr. 299:23–300:5 (Closing).

Despite bearing the burden of proof, Plaintiffs offered no alternative counterfactual estimate showing a greater effect. Yet the district court inferred 50% foreclosure—many times the magnitude of the only estimate in the record. The point is not that 0.9% is precisely correct. It is that 0.9% is the only quantity in the record that even purports to represent what *Microsoft* and *Rambus* require: the *incremental* effect of the challenged conduct on rivals’ market access. *See Microsoft*, 253 F.3d at 79; *Rambus*, 522 F.3d at 466–67. Substituting a coverage figure for a foreclosure measure is not a harmless analytical shortcut; it is reversible error.

4. The Natural Experiments the Court Cites Also Refute Its Foreclosure Claim

As noted above, the district court’s own findings discuss three natural experiments that also impugn the post-hoc share measure.

The first was Mozilla’s switch of Firefox’s default from Google to Bing: “By the twelfth day, Bing had kept only 42% of the [Firefox] search volume.” *Google*, 747 F.Supp.3d at 97. Users readily abandoned the

default, despite switching costs, because they preferred Google. Yet from this the district court inferred only that “the default effect is weaker when the alternative is a dominant firm with high brand recognition backed by a quality product.” *Id.* That gloss is not required by the record, and it describes competition on the merits. Yet the court treats it as if it were foreclosure. Properly understood, that users actively switched from a different default to Google demonstrates that Google’s share cannot simply be attributed to default settings.

Second, Bing is the out-of-the-box default in Microsoft’s Edge browser, preloaded on all Windows desktops. Yet “Google had an 80% search share on Windows when Chrome first launched, and that share has remained steady ever since.” *Google*, 747 F.Supp.3d at 48. Most Windows users reach Google by downloading Chrome, overriding Microsoft’s preinstalled browser and GSE. Whinston conceded on cross that many Windows users circumvent the Bing default by using Chrome. Liab. Tr. 6137:17–24 (Whinston). One implication is clear: Google’s Windows share cannot be due to a default position on Windows machines because Google has no such position.

Third, although the district court excluded specialized vertical search providers (SVPs) from the GSE market, its own market-definition analysis shows that competition is “a click away” whenever the alternative is better, irrespective of default placement. “58% of users search Amazon first when they seek to make an online purchase, as opposed to only 25% who go first to Google.” *Google*, 747 F.Supp.3d at 60. “Yelp’s local query volume is higher than Google’s.” *Id.* None of these SVPs has a default search agreement, yet each has won a share of search queries. If even SVPs—alternatives the court deemed insufficiently close substitutes to be in the same market—can win significant share from the default GSE, the conclusion that Google’s default coverage of 50% of general search amounts to substantial foreclosure is untenable.

5. Users Choose Google Even Where Rivals Are Equally Accessible

The most direct refutation of the foreclosure inference appears in the district court’s findings on Apple-device behavior: roughly 65% of Apple-device searches flow through Safari’s default access point, *id.* at 44, yet “only 5.1% of all searches on iPhones are conducted on a GSE other than Google.” *Id.* Even of the 35% of queries that flow through non-default channels—where rivals are equally accessible to users through

bookmarks, the URL bar, downloaded applications, and the like—the overwhelming share still goes to Google.

That is revealed consumer preference for Google in the very setting the district court treated as evidence of foreclosure. In other words, the court inferred exclusion from the 65% default-channel share, but consumer behavior within the 35% non-default share refutes that inference. The default agreements at issue could not possibly have driven that result. Where rivals are equally accessible to consumers, consumers continue to choose Google.

The 65% / 5.1% pattern also explains why the district court's *Microsoft* analogy does not carry the weight ascribed to it. In *Microsoft*, Internet Explorer downloads in the late 1990s were “wholly unfamiliar, exceedingly complex, and truly difficult” for PC users, and Microsoft's licensing restrictions precluded OEMs from preinstalling Netscape on the desktop. 253 F.3d at 64, 71. Today, U.S. consumers download apps routinely, and the record shows that rivals are distributed by the counterparties to Google's agreements. High barriers to accessing alternative channels were the linchpin of *Microsoft's* exclusivity inference, but they are simply not present here.

The Third Circuit’s decision in *United States v. Dentsply International, Inc.*, 399 F.3d 181 (3d Cir. 2005), on which the district court also relied, is distinguishable on the same ground. There, the agreements expressly prohibited authorized distributors from selling rivals’ products. *Id.* at 191–93. Google’s agreements contain no such prohibition, and rivals are, in fact, distributed by its counterparties. Thus, for example, Bing appears among Safari’s preloaded options, *Google*, 747 F.Supp.3d at 48, and as an alternative in Firefox’s “this time, search with” feature, *id.* at 44. The conduct condemned below is not the conduct either *Dentsply* or *Microsoft* addressed.

C. Bing’s Share Was a Consequence of Microsoft’s Strategic Choices

The district court treated Bing’s smaller share as the consequence of Google’s distribution agreements. Yet the trial record indicates another source: Bing’s limited share is at least partly the result of Microsoft’s own strategic choices and capability deficits. Even *Microsoft*’s “edentulous” standard requires that the *defendant*’s conduct, not a rival’s independent failures, be the source of foreclosure. *See Microsoft*, 253 F.3d at 79 (anticompetitive conduct must “reasonably appear capable of making a significant contribution to . . . maintaining monopoly power”).

1. The District Court Found That Microsoft's Mobile Failure Was Its Own

The baseline finding against which any foreclosure inference must be measured is Google's 80% pre-agreement share. "By 2009, 80% of all general search queries [in the United States] flowed through Google." *Google*, 747 F.Supp.3d at 38. Whatever conduct, capability, or consumer preference produced that share, it cannot have been the post-2009 distribution agreements at issue below.

The district court's findings also explain why Microsoft fell further behind that baseline. "Microsoft 'missed' the mobile revolution and was unable to improve its browser, Internet Explorer, until it used Google's rendering engine, Chromium. Some of Microsoft's quality issues also were attributable to its poor index." *Google*, 747 F.Supp.3d at 166. Microsoft was "slow to recognize the importance of developing a search product for mobile" and "never caught up." *Id.* at 144. Those are the district court's findings on the *causes* of Bing's relatively small share; Google's distribution agreements are not among them.

That Microsoft has "invested nearly \$100 billion into search over the past two decades," *Google*, 747 F.Supp.3d at 36, only strengthens the point. Bing's deficit is not a story about resource constraints externally

imposed by Google's contracts; it is a story about how Microsoft chose to deploy its enormous resources.

2. Microsoft Demanded Distribution Before It Would Invest in Quality

Despite these findings, the court inferred foreclosure on the assumption that Microsoft was an equally capable rival displaced by Google's agreements. Yet Microsoft's own witnesses testified otherwise. Mikhail Parakhin, the executive then responsible for Bing, testified that "it's our belief that no amount of investment without securing some way to do distribution in mobile will result in any share gain. And so . . . unless Microsoft gets a more significant or a firmer guarantee of distribution, then it makes it uneconomical for Microsoft to invest in mobile quality." Liab. Tr. 10029:19–10030:5 (Parakhin, read in on Murphy cross). Jon Tinter, Microsoft's head of business development for Bing, testified to the same investment posture in dealings with Apple. *See* Liab. Tr. 3256:17–21 (Tinter).

Apple's response to Microsoft's contract-first overtures was that "there's no price that Microsoft could ever offer [Apple] to" preload Bing. *Google*, 747 F.Supp.3d at 144 (quoting Liab. Tr. 2519:10–11 (Cue)). Switching to Bing was not a viable option, Apple's witness explained,

because “there’s [nobody] . . . who’s anywhere near as good as Google at searching.” Liab. Tr. 10153:21–10154:3 (Cue, read in on Murphy cross).

Drawing a legal conclusion of foreclosure from these facts inverts how competition for distribution is supposed to work. Google invested in search quality and search infrastructure in advance of revenue certainty, won distribution on the strength of that investment, and loses substantial volume even where it occupies the default. Microsoft demanded distribution certainty as a precondition to investing in quality. *Microsoft’s* causation rule does not permit a rival’s refusal to invest to be reattributed to the defendant. 253 F.3d at 79.

3. Apple’s Selection of Google Was a Textbook “Make-or-Buy” Decision

Apple’s selection of Google as Safari’s default search engine was, in Murphy’s testimony, a textbook make-or-buy decision. *See* Liab. Tr. 10201:24–10203:5 (Murphy). Apple compared developing its own GSE to contracting with the highest-quality provider available, and it chose the latter: “[I]t wasn’t a choice to pick any of the [other] existing search engines,” leaving Apple “with no other choice than to potentially building our own.” Liab. Tr. 10154:16–25 (Cue, read in on Murphy cross). *See also* Liab. Tr. 2598:22–2599:3 (Cue) (replicating “what Google has done over

a more than 20-year period” with “incredible engineers” would be a “not . . . insignificant amount of work”).

The record explains the decision in conventional efficiency terms. Apple chose Google because it was the best available provider, and no other existing GSE was even in the running. *See* Liab. Tr. 10153:21–10154:3 (Cue, read in on Murphy cross). And Apple chose not to build its own GSE because that would have required redirecting constrained engineering resources from areas of its comparative advantage. *See* Liab. Tr. 2594:21–2595:6, 2598:22–2599:3 (Cue). That is efficient specialization by a counterparty, not foreclosure by the Defendant. Condemning it would condemn the elementary decision to “buy” a high-quality input rather than to “make” a costlier (and potentially lower-quality) substitute internally.

D. The District Court Applied Inconsistent Causation Standards Within a Single Opinion

The relaxed “reasonably appear capable” standard the district court applied to the default-distribution claim cannot be reconciled with the stricter standards it applied to the plaintiffs’ other Section 2 claims in the same case.

In dismissing the plaintiff states' claims that Google's conduct toward specialized vertical providers (SVPs) had anticompetitive effects, the district court held that "[s]peculation that Google's conduct 'can reasonably be expected,' 'might,' or 'could potentially' degrade SVPs and make them less attractive partners to Google's rivals is not evidence of anticompetitive effects in the relevant markets," and that "[p]laintiffs are required to show with proof 'that the monopolist's conduct *indeed* has the requisite anticompetitive effect.'" *Google*, 747 F.Supp.3d at 152 (quoting *Microsoft*, 253 F.3d at 58). The court likewise dismissed the plaintiff states' SA360 refusal-to-deal claim on the ground that adjudicating it would require the court to act as a "central planner," and warned that "those thorny questions foreshadow the challenges the court would face in administering a remedy." *Google*, 747 F.Supp.3d at 184.

What the court demanded for the SVP claims—proof that the conduct "*indeed* has the requisite anticompetitive effect," *id.* at 152—is the appropriate standard, but it is exactly what the court did not demand of the default-distribution claim it credited. For one claim, the court read *Microsoft* to require evidence of actual anticompetitive effect; for another, it treated capability alone as sufficient. The two standards cannot coexist

within a coherent body of Section 2 doctrine. The asymmetry is itself reason for reversal. The stricter standard the court itself applied to the SVP and SA360 claims is the appropriate Section 2 causation standard, and the default-distribution liability finding cannot survive it.

E. The District Court’s Position Would Undermine Promotional Distribution and Investment Recoupment

The district court’s reasoning, if affirmed, threatens to convert legitimate promotional placement, when effective, into a predicate for Section 2 liability—not only for digital platforms but for any firm with a strong brand competing for distribution. At least three commonplace types of business arrangements are directly implicated.

The first is preferred-placement arrangements: e.g., premium retail placements and slotting agreements, supermarket endcaps, store-within-a-store arrangements, in-app feature placement, and analogous distribution tools across diverse product markets. A standard that infers “exclusivity” from the degree to which a placement succeeds in driving consumer choice puts the legality of such arrangements at risk whenever the placed product happens to be popular. This runs contrary to the accepted economic justification of such arrangements. *See generally*

Benjamin Klein & Joshua D. Wright, *The Economics of Slotting Contracts*, 50, J. L. & Econ. 421 (2007).

The second category is retailer monetization more broadly: e.g., manufacturer-distributor rebates, loyalty programs, search-and-discovery placements in e-commerce. These models depend on distributors' ability to charge for promotional placement and brands' ability to win that placement through bids reflecting downstream consumer demand.

The third category is investment recoupment: e.g., long-term promotional arrangements that allow firms to recoup the up-front, fixed-cost investments characteristic of innovation-intensive industries such as pharmaceuticals, semiconductors, and content production. The district court's rule paradoxically treats the effectiveness of the recoupment as evidence of the impermissibility of the very arrangement that made the investment viable.

The economic problem is the same across all three categories. If "exclusivity" can be inferred from consumers' demonstrated preference for the promoted product, then the legality of any promotional arrangement becomes contingent on its ex-post effectiveness, but with

the incentives running the wrong way. Firms whose promotions succeed in directing consumers to good products are penalized; firms whose promotions fail are safe. That is not the rule the antitrust laws prescribe. *See, e.g.,* Geoffrey A. Manne, *Error Costs in Digital Markets*, in *The Global Antitrust Institute Report on the Digital Economy* 65 (Joshua D. Wright & Douglas H. Ginsburg eds., 2020).

Defaults and promotional placement are also frequently procompetitive. They enable price competition for distribution by allowing weaker rivals to garner promotional placements through payments rather than only through immediate quality competition. As Murphy explained, default agreements “create a lot of price competition,” and rivals’ inability to win that competition is evidence of the strength of the underlying consumer preference, not the absence of competitive opportunity. *Liab. Tr.* 9714:2–13 (Murphy). The district court’s rule, by contrast, would condemn as exclusionary the competition Murphy described simply because it works.

II. The Remedies Order Exceeds the Limits *Microsoft* and *Trinko* Impose

A. *Microsoft* Requires a “Significant Causal Connection” the Record Cannot Support

The remedies order compounds the errors in the liability decision. The Section 2 remedies regime this Court announced in *Microsoft* permits relief only when it is “tailored to fit the wrong creating the occasion for the remedy.” 253 F.3d at 107. For anything beyond a cease-and-desist order, the district court “must base its relief on some clear ‘indication of a significant causal connection between the conduct enjoined or mandated and the violation found.’” *Id.* at 105 (internal citations omitted).

The district court did not make the causal-connection finding required for the data-transfer and syndication mandates the order imposes. The court’s own liability findings traced Google’s market position substantially to factors other than Google’s agreements, including consumer preference, *Google*, 747 F.Supp.3d at 95 (Apple’s selection of Google as a “no brainer”); Microsoft’s mobile misstep, *id.* at 165–66 (“Microsoft ‘missed’ the mobile revolution”); and Google’s superior monetization of search advertising, *id.* at 144 (Google Search is “the best

bet for monetizing queries”). None of those determinants of Bing’s smaller share resulted from the conduct the remedies order enjoins.

The 0.9% choice-screen estimate takes on even greater significance at the remedies stage. If the only quantitative measure of the marginal foreclosure effect is approximately one percent, the data-transfer and syndication remedies—which assume that essentially *all* of Google’s competitive advantage is due to the agreements—are dramatically over-tailored to the violation found. In other words, while the remedies order treats Google’s qualitative advantage as the product of foreclosure, the record establishes otherwise, and the remedy is inappropriate.

Recent empirical work points the same way. A field experiment using a structural model fit to data from over two thousand desktop users estimated that sharing Google’s search data with Bing would raise Bing’s click-through rate from 23.5% to 24.8%—a “modest 5% gain that would have little effect on market share.” Hunt Allcott, et al., *Sources of Market Power in Web Search: Evidence from a Field Experiment*, NBER Working Paper 33410 (Jan. 2025; revised. Feb. 2026), <https://doi.org/10.3386/w33410>. That estimate, from authors generally sympathetic to Plaintiffs’ theory, undercuts the central premise of the

data-transfer remedy and confirms what the record already showed: data sharing of the kind the order mandates would not appreciably alter rivals' competitive positions.

The data-transfer and syndication mandates here are outliers in modern enforcement, and they are outliers because they presuppose a causal link the trial record does not establish.

B. *Trinko* Applies to Remedies, Not Just to Liability

The Department of Justice has elsewhere asserted that “*Trinko* addresses antitrust liability, not remedies.” Brief for the United States and FTC as *Amici Curiae* at 6, *Epic Games, Inc. v. Google LLC*, No. 24-6274 (9th Cir. Oct. 26, 2024). The Supreme Court has held otherwise, however. In *Alston*, the Court relied extensively on *Trinko* to caution that antitrust courts adopting “judicially adminis[tered]” remedies “tread cautiously,” and noted that mistaken remedies “could wind up impairing rather than enhancing competition.” 594 U.S. at 102. The Court invoked *Trinko* to support *remedial* restraint, not merely to limit a duty to deal.

The concerns animating *Trinko* are inherently concerns about imposed remedies. The disincentive to invest in proprietary inputs is generated not by a liability finding alone but by the remedial obligation

to share those inputs with rivals on judicially supervised terms. *See Trinko*, 540 U.S. at 407–08 (“Compelling such firms to share the source of their advantage . . . may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities.”); *id.* at 408 (“Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited.”). Those passages speak more to remedies than to liability.

The district court itself recognized the same problem on the same record. In dismissing the plaintiffs’ SA360 refusal-to-deal claim, the court explained that adjudicating it “would require the court to act as a ‘central planner,’” and that “those thorny questions foreshadow the challenges the court would face in administering a remedy.” *Google*, 747 F.Supp.3d at 183 (internal citations omitted). But the order on appeal commits the very error the court there avoided by requiring ongoing supervision of the scope, quality, and refresh cycles of “scale-dependent data inputs,” APIs, models, and applications, all through a “Technical Committee” the order establishes to administer it. That is the central-planning function the

court correctly deemed foreclosed by *Trinko* when applied to a different Section 2 claim in the same case.

This Court's decision in *Massachusetts v. Microsoft* is directly on point. That decision rejected an order that would have required Microsoft to share technical information with rivals on a royalty-free basis on the ground that such relief "would confiscate much of the value of Microsoft's investment in research and development" and constituted "an analogous form of structural relief" to divestiture. 373 F.3d at 1230. The data-transfer and syndication mandates here are at least as confiscatory. They require Google to share with rivals the engineered output of more than two decades of investment in search infrastructure, on terms a court-appointed committee will supervise into the indefinite future. The reasoning of *Massachusetts v. Microsoft* applies *a fortiori*.

Trinko's central-planner concern and *Microsoft's* causal-connection requirement operate together to confine remedies both to the conduct proven unlawful and to forms of relief courts can capably administer without distorting the markets they are meant to protect. The order on appeal violates both constraints.

C. The Empirical Track Record of Section 2 Remedies Counsels Restraint

The doctrinal restraints on Section 2 remedies are reinforced by the empirical record. Robert Crandall's review of the major Section 2 cases ending in divestiture finds "remarkably little evidence that these cases and the relief that emanated from them had a positive effect on competition and consumer welfare." Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, 80 Or. L. Rev. 109, 197 (2001). A follow-up survey of ten major monopolization cases reaches the same conclusion, finding "little evidence that any of them contributed favorably to consumer welfare." See Robert W. Crandall & Kenneth G. Elzinga, *Injunctive Relief in Sherman Act Monopolization Cases*, in 21 RESEARCH IN LAW & ECONOMICS 277, 335-336 (John B. Kirkwood ed., 2004).

The GM-bus consent decree is *the* cautionary example. The order's behavioral terms barred General Motors from "long-term exclusive contracts with Greyhound, thereby depriving it of the assured benefits of scale necessary for efficient operation. GM therefore exited from intercity bus manufacturing in 1979." *Id.* at 324. An order designed to discipline a

dominant firm produced that firm's exit and a market with one fewer competitor.

The pattern is not unique. Across the surveyed cases, aggressive Section 2 remedies—particularly those that compel sharing or constrain the defendant's distribution model—are observed to produce welfare losses that overwhelm the gains the remedies were predicted to yield. The combination of irreversibility, complexity, and dynamic-market evolution makes platform remedies an especially uncomfortable fit with the institutional limits suggested by the empirical literature.

The error-cost calculus for the order on appeal is one-sided: the costs of getting these remedies wrong (durable losses to investment incentives, distorted competition between rivals, ossification of judicial micro-management of a rapidly evolving market) are large, irreversible, and supported by the empirical record. The benefits, by contrast, depend on a chain of causal inferences the trial record does not establish.

D. The GenAI Extension Highlights the Static-Analysis Problem

The most striking demonstration of the order's defects is its extension of data-transfer and syndication obligations to GenAI providers. GenAI products did not exist during the relevant conduct

period; the district court itself found in the remedies opinion that the “GenAI space is highly competitive,” *United States v. Google LLC*, 803 F.Supp.3d 18, 37 (D.D.C. 2025), and described consumers as turning to “ChatGPT, Perplexity, and Claude” to gather information, *id.* at 36. The link required by *Massachusetts v. Microsoft*, 373 F.3d at 1226, between the conduct found unlawful and the GenAI obligations the order imposes is absent.

If GenAI competitors are thriving *without* access to Google’s data, the foreclosure-by-scale-denial theory underpinning liability has not borne out empirically. A remedies order built on a theory of harm falsified by the court’s subsequent findings cannot stand. The remedies-stage GenAI extension is, in that sense, less a separate error than an illustration of the liability opinion’s central analytical failure: a static analysis of a dynamic market, imposed years after the relevant conduct, in a market the court itself now describes as competitive.

CONCLUSION

The district court’s liability holding should be reversed and its remedies order vacated. This Court should make clear that: (a) *Rambus*, not *Microsoft*, supplies the general Section 2 causation standard; (b)

foreclosure must be measured against the but-for world rather than inferred from naïve, post-conduct outcomes; and (c) the *Microsoft* causal-connection requirement and *Trinko*'s central-planner concerns operate together to confine Section 2 remedies to the conduct actually proven unlawful.

Dated: May 29, 2026

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation set forth in Federal Rule of Appellate Procedure 29(a)(5) because it contains 6,499 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Rule 32(e)(1) of the United States Court of Appeals for the District of Columbia Circuit.

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Dated: May 29, 2026

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CERTIFICATE OF SERVICE

I hereby certify that, on May 29, 2026, I electronically filed the foregoing Brief of Law & Economics Scholars as *amici curiae* with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit using the Court's CM/ECF system, and served copies of the foregoing via the Court's CM/ECF system on all ECF-registered counsel.

Dated: May 29, 2026

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