MONOPOLY BY DEFAULT: PSYCHOLOGY MEETS ANTITRUST IN *UNITED STATES V. GOOGLE*

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I. INTRODUCTION

Convenience strongly influences consumers are strongly although most are likely unable to explain why. The economically-inclined may revert to the utilitarian principle articulated in the 19th century by John Stuart Mill that "actions are right in proportion as they tend to promote happiness."[1] While this belief accords with traditional schools of economics, research from the field of behavioral economics on the power of defaults undermines this view.[2] Behavioral economics shows that consumers are not so rational.[3] Rather, a product's default version and a host of other biases drive consumers to choose convenience, even if rational utility or happiness suggest otherwise.[4]

Technology firms understand the importance of defaults. Over 25 years, founders Sergey Brin and Larry Page built Google from a startup to a dominant player in general search and advertising.[5] Building on earlier versions of internet search tools, the company used innovations and subjective search data to establish its position, then strategically distributed Google search to protect its default status.[6] But according to the court in *United States v. Google*, what started as strategy morphed into anti-competitive behavior, and in August 2024, Judge Mehta in the D.C. District Court concluded that Google violated Section 2 of the Sherman Antitrust Act for maintaining monopolies in general search and general text advertising.[7] The case is remarkable for multiple reasons: it signals a new era in antitrust legal philosophy; it uses heterodox economic analysis in its antitrust analysis; and it raises questions about the incursion of federal regulators into Silicon Valley.

This note proceeds in five parts. Part I is a brief overview of American antitrust enforcement and the modern turn to the "New Brandeis" school of thought. This revolution in antitrust theory coincides with renewed regulatory vigor, particularly

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1. JOHN STUART MILL, UTILITARIANISM 7 (George Sher ed., Hackett Publ'g 2d ed. 2001).

2. *See generally* Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979) [hereinafter Kahneman & Tversky, *Prospect Theory*]; Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 SCI. 453 (1981) [hereinafter Tversky & Kahneman, *The Framing of Decisions*].

3. *See generally* Kahneman & Tversky, *Prospect Theory*, *supra* note 2.

4. Tversky & Kahneman, *The Framing of Decisions*, *supra* note 2, at 457-58.

5. *See* United States v. Google LLC, 747 F. Supp. 3d 1, 35 (D.D.C. 2024).

6. For an overview of Google's history and early product features, see Sergey Brin & Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Web Search Engine*, 30 COMPUTER NETWORKS AND ISDN SYSTEMS 107, 109-116 (1998). For instance, Brin and Page describe the "PageRank" tool, which acts as an "objective measure of [webpage] importance that corresponds well with people's subjective idea of importance." *Id.* at 109. Although not technically the first tool to search the internet, Google mastered personalized search through features like PageRank, giving it a quick lead among competitors. See also *Google*, 747 F. Supp. 3d at 88-106, for an overview of Google's distribution agreements.

7. *Google*, 747 F. Supp. 3d at 186-87; *see* discussion of 15 U.S.C. § 2 *infra* Part I.

against technology firms, providing context for the suit against a pillar of the U.S. economy. Part II outlines the extensive *United States v. Google* decision[8] from the District of Columbia District Court in June 2024. Part III introduces default theory, its background, and its effect on consumers making decisions. Part IV applies default theory to Google's search technology, addressing some of the nuances in high-tech products. Finally, Part V discusses the significance of the *Google* decision generally and ponders three questions about the case and its implications for antitrust law and policy.

II. ANTITRUST ENFORCEMENT AND THE NEW BRANDEIS SCHOOL

In 1889, Ohio Senator John Sherman proposed a new bill as part of the 51st United States Congress to combat growing market domination and price collusion, and President Benjamin Harrison signed the Sherman Antitrust Act one year later.[9] Since 1890, U.S. antitrust enforcement has ebbed and flowed in efforts to carry out its initial mission: "rid commerce of monopolies and restraints of trade."[10] Although not a perfect framework, there have been four demonstrable movements in the history of American antitrust enforcement, each borrowing and objecting to specific parts of the previous regime.[11]

The Sherman Act is the foundation of American antitrust law, but it did not yield important results until the start of the 20th century when – under President Theodore Roosevelt – the federal government won two major Sherman Act lawsuits, resulting in corporate dissolutions.[12] In 1911, the Sherman Act toppled a corporate giant when the Supreme Court found that John D. Rockefeller's Standard Oil Company had violated both the first and second sections of the Act.[13] The first section restricts trust-like combinations and conspiracies that restrain trade.[14] The second section addresses monopolies, making it a felony to "monopolize, or attempt

8. *See generally Google*, F. Supp. 3d.

9. William Kolasky, *Senator John Sherman and the Origin of Antitrust*, 24 ANTITRUST 85, 87 (2009); *Sherman Anti-Trust Act (1890)*, NAT'L ARCHIVES, https://www.archives.gov/milestone-documents/sherman-anti-trust-act (last visited Jan. 18, 2025).

10. HANS B. THORELLI, THE FEDERAL ANTITRUST POLICY: ORIGINATION OF AN AMERICAN TRADITION 227 (1955).

11. *See* Maurice E. Stucke & Ariel Ezrachi, *The Rise, Fall, and Rebirth of the U.S. Antitrust Movement*, HARV. BUS. REV. (Dec. 15, 2017), https://hbr.org/2017/12/the-rise-fall-and-rebirth-of-the-u-s-antitrust-movement (laying out four historic cycles of antitrust regulation, then discussing the emergence of the New Brandeis movement).

12. *See generally* Chesapeake & Ohio Fuel Co. v. United States, 115 F. 610 (6th Cir. 1902); N. Sec. Co. v. United States, 193 U.S. 197 (1904).

13. Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 79 (1911).

14. Sherman Antitrust Act, 15 U.S.C. § 1.

to monopolize … any part of the trade or commerce among the several States."[15] The Court found that Standard Oil "inten[ded] to drive others from the field and to exclude them from their right to trade" and in doing so, violated both sections of the Sherman Act.[16] The Court ordered Standard Oil to dissolve, demonstrating that the Sherman Act was a force to be reckoned with in federal commercial regulation.[17]

The next wave of antitrust enforcement in the 1920s and 1930s saw the New Deal embrace agency regulation and foster cooperation between regulators and companies.[18] After *Lochner*, the federal government encouraged companies to cooperate with regulators.[19] This minimized the need to overtly regulate large companies, especially given the mutual interest corporations and regulators shared in lifting the United States economy out of the Great Depression.[20] This cooperation continued into antitrust enforcement's third wave from 1945 to the 1960s, also called "The Golden Era of Antitrust."[21] During the "Golden Era," antitrust enforcement thrived as a tool to preserve capitalism against the political encroachment of fascism, communism, and perceived nefarious government dominance.[22] Despite enforcement, companies and the U.S. government thrived and innovated in the years following World War II.[23]

By the mid-1960s, a new wave of economists, lawyers, and policymakers took the "competition ideal" and argued it was actually opposed to government regulation, ushering in the fourth wave of antitrust philosophy: the Chicago School.[24] The

15. *Id.* § 2.

16. *Standard Oil Co. of N.J.*, 221 U.S. at 76.

17. *Id.* at 78-82.

18. *See* Stucke & Ezrachi, *supra* note 11.

19. *See id.*; *see also* Lochner v. New York, 198 U.S. 45, 64 (1905) (finding that a New York law limiting bakers' weekly working hours to a maximum of 60 was an unconstitutional violation of the freedom to contract protected by the Due Process Clause of the Fourteenth Amendment), *overruled by* Nebbia v. New York, 291 U.S. 502, 537 (1934). *Lochner* highlighted a laissez-faire period of commerce regulation that lasted until the Great Depression.

20. *See* Stucke & Ezrachi, *supra* note 11; *see also* Gene M. Gressley, *Thurman Arnold, Antitrust, and the New Deal*, 38 THE BUS. HIST. REV. 214, 214-15 (1964). Gressley characterizes 1900-1930 as a period of "vacillating and sporadic" antitrust enforcement, and he punctuates the account by calling President Roosevelt's views "ambivalent" until the late 1930s, when firm antitrust advocates won the president's attention. *Id.*

21. *See* Stucke & Ezrachi, *supra* note 11.

22. *Id.*

23. *See id.*

24. See the discussion in Mark Glick & Darren Bush, *The Chicago School, the Post-Chicago School, and the New Brandeisian School of Antitrust: Who is Right in Light of Modern Economics?*, 30 GEO. MASON L. REV. 935, 939-44 (2023), describing the origins of the deregulatory Chicago School movement and arguing that Friedrich Hayek was particularly responsible for the movement's "ideological premises."

Chicago School looked skeptically at government regulations across the board, and F.A Hayek's comment in *The Road to Serfdom* captured the new mood: "when we have to deal with many different monopolistic industries, there is much to be said for leaving them in different private hands rather than combining them under the single control of the state."[25] Monopolies, Hayek proposed "scarcely ever complete and [are] even more rarely of long duration or able to disregard potential competition."[26] President Ronald Reagan embodied the new Chicago School deregulatory approach when he pronounced that "government is not the solution to our problem; government is the problem."[27]

Against this status quo, a fifth antitrust wave called the "New Brandeis School" emerged in the 21st century.[28] This antitrust philosophy is named for Justice Louis' Brandeis, whose skepticism of corporate concentration was embodied by his statement that "size may, at least, become noxious by reason of the means through which it was attained or the uses to which it is put."[29] New Brandeisians abide by the traditional core of antitrust consumer welfare, but expand the standard to include "fairness, … work and life balance, social connections, safety, and environmental quality."[30] Spurred by this new antitrust movement, regulators opened investigations against the largest technology companies in the U.S. including Google, Facebook (i.e. Meta Platforms), Amazon.com, and Apple.[31]

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25. 2 F.A. HAYEK, *The Road to Serfdom*, *in* THE COLLECTED WORKS OF F.A. HAYEK 206 (Bruce Caldwell ed. 2007).

26. *Id.*

27. Ronald Reagan, *Inaugural Address 1981*, RONALD REAGAN PRESIDENTIAL LIBR. & MUSEUM https://www.reaganlibrary.gov/archives/speech/inaugural-address-1981 (last visited Feb. 17, 2025).

28. *See* Stucke & Ezrachi, *supra* note 11; Glick & Bush, *supra* note 24, at 955.

29. LOUIS D. BRANDEIS, *Chapter VIII: A Curse of Bigness*, *in* OTHER PEOPLE'S MONEY AND HOW THE BANKERS USE IT 92, 93 (2009).

30. Maurice E. Stucke, *Reconsidering Antitrust's Goals*, 53 BOS. COLL. L. REV. 551, 601-02 (2012); *see* Siamak Etefagh, *The New Brandeisian: A Populist Repackaging of the Harvard School*, MISES INST.: MISES WIRE (Jan. 10, 2025), https://mises.org/mises-wire/new-brandeisian-populist-repackaging-harvard-school.

31. Seth Fiegerman, *Google, Facebook and Apple Could Face US Antitrust Probes as Regulators Divide Up Tech Territory*, CNN BUS. (June 3, 2019, 4:31 PM), https://www.cnn.com/2019/06/03/tech/facebook-google-amazon-antitrust-ftc/index.html; *see* Complaint at 4, United States v. Google, F. Supp. 3d (D.D.C. 2024) (No. 1:20-cv-03010); Complaint for Declaratory and Injunctive Relief at 2, 3, Meta Platforms, Inc., v. Fed. Trade Comm'n, 723 F. Supp. 3d 64 (D.D.C. 2024) (No. 1:23-cv-03562); Complaint for Permanent Injunction, Civil Penalties, Monetary Relief, and other Equitable Relief at 21, Fed. Trade Comm'n v. Amazon.com, 735 F. Supp. 3d 1297 (W.D. Wash. 2024) (No. 2:23-cv-00932); Complaint at 3, United States v. Apple, 791 F.3d 290 (2d Cir. 2015) (No. 1:12-cv-02826).

III. THE *UNITED STATES V. GOOGLE* DECISION

In August 2024, District of Columbia District Judge Amit Mehta delivered a landmark opinion finding that Google violated Section 2 of The Sherman Act for maintaining a monopoly in the market for general search services and general text advertising.[32] *United States v. Google* is a sweeping opinion that carefully sets up a layman's understanding of the relevant technologies and markets before addressing how Google achieved, and illicitly protected, its market power.[33] It also addresses markets in which Google does not cross the monopoly threshold and rejected Rule 37 discovery sanctions for Google's internal policy of deleting incriminating discussions.[34] This section will summarize the procedural history and the key facts of *United States v. Google*, explain the governing law, and conclude with Judge Mehta's legal findings.

A. Procedural History

In October 2020, the U.S. Department of Justice and eleven states sued Google for violating Section 2 of the Sherman Act, alleging Google used exclusive distribution agreements to create and maintain a monopoly in general search services, search advertising, and general search text advertising.[35] The Plaintiffs asked the court to find Google liable, issue an injunction against Google's distribution agreements, and require any relief necessary to fix anticompetitive effect.[36] In December 2020, thirty-eight states jointly brought *State of Colorado v. Google* under § 16 of the Clayton Act,[37] supplementing *United States v. Google* with allegations of a "third advertiser-side market" for general search advertising and exclusionary conduct against specialized vertical providers and other exclusionary conduct by using its advertising platform, SA360, to generally restrict competition.[38] The court consolidated the cases for efficiency, and the parties conducted discovery for over two years.[39] In February 2023, the Plaintiffs moved for sanctions under Federal Rule of Civil Procedure 37(e) based on Google's failure to preserve key internal employee

32. *Google*, F. Supp. 3d at 32.

33. *Id.* at 32-42.

34. *Id.* at 33.

35. *Id.*

36. *See id.*

37. *Id.*; Clayton Act of 1914, 15 U.S.C. § 26 (building on the Sherman Antitrust Act by addressing specific circumstances that were not addressed in the Sherman Act, such as mergers and discriminatory price fixing).

38. *Google*, F. Supp. 3d at 33, 57-59. A specialized vertical provider (SVP) is a platform focused on a specific category of search queries, like retail searches on Amazon or subject-specific searches on Reddit. *Id.* at 58. Once within a specialized vertical provider, a user can tailor their searchers beyond general Google searches. *Id.* at 58-59.

39. *Id.* at 33-34.

messages.[40] The court deferred ruling on the sanctions until trial.[41] An extensive nine-week trial commenced in September 2023 and included numerous experts, third-party witnesses, and thousands of exhibits.[42] The court delayed closing arguments until May 2024, and Judge Mehta issued his decision three months later.[43]

B. Facts

Google was a decade old in 2008 when it made three significant moves.[44] First, Google released its open-source operating system, Android, allowing developers to build Google into different mobile devices and technologies.[45] Second, Google launched the Chrome browser, allowing internet users to access any website they chose through the platform.[46] Third, Google finalized its acquisition of DoubleClick, a market-leading search advertising tool with significant customer relationships with web publishers and agencies.[47] Through the launch of Android, Google took the technology already native to desktops and used it to dominate in the mobile era as well.[48] The court found that by 2022, Google had Search+ revenues over $162 billion, a number that tripled between 2014 and 2021.[49]

To provide clarity for its discussion of the search market and vendor agreements, the court listed key third parties to the litigation (including Apple, Microsoft Corp., and Samsung).[50] Then, the court overviewed Google's market position in search queries, explaining how a general search engine ("GSE") works and exploring different types of user queries and how those results display on the results page.[51] Importantly, the court found that by 2009, "80% of all general search queries [in the United States], whether entered on a desktop computer or mobile device,

40. *Id.* at 34; FED. R. CIV. PROC. 37(e) (allowing a court to sanction a party for failure to maintain electronically stored information "that should have been preserved in anticipation or conduct of litigation" if it finds prejudice or intent to stop the opposing party from obtaining the information).

41. *Google*, F. Supp. 3d at 34.

42. *Id.*

43. *Id.* at 29, 34.

44. *See id.* at 35.

45. *Id.*

46. *Id.*

47. *See id.*; *Google Acquisition of DoubleClick: Antitrust Implications*, AM. ANTITRUST INST. (Nov. 6, 2007), https://www.antitrustinstitute.org/wp-content/uploads/2018/08/Google_DoubleClick_memo_110620071437.pdf

48. *Google*, F. Supp. 3d at 35 ("[H]undreds of millions of mobile devices in the United States run on the Android operating system.").

49. *Id.*

50. *Id.* at 35-37.

51. *Id.* at 37-42.

flowed through Google."[52] By 2020, "Google's share… on mobile devices was even higher at 94.9%."[53] In stark contrast to Google, the next best rival, Microsoft's Bing, received 6% of search queries, followed by Yahoo, DuckDuckGo, and other smaller industry participants.[54]

The court also considered the significant expense required to build and maintain a general search engine of Google's scale.[55] The task "is an extremely capital- and human-resource intensive endeavor."[56] More specifically, Google's internal competitive analysis found that for "Apple to create and maintain a GSE that could compete with Google," Apple would need roughly $20 billion for the initial infrastructure and $7 billion annually to run it.[57] Apple's own estimates found the annual cost would be around $6 billion.[58] Essentially, building another competitor to Google's GSE was so expensive that Silicon Valley venture capitalists considered it un-investable.[59]

Next, the court detailed the different methods Google used to distribute its GSE, and it noted seven relevant channels by which Google makes the GSE accessible.[60] Of the seven, default placement on desktops and mobile devices was the most efficient way to reach consumers.[61] Google was the default on both Android and Apple mobile devices and was the default on all desktop applications except for Edge, which uses Microsoft's Bing GSE.[62] Google's search engine was also the default option for less distributed browsers such as Firefox.[63] Google obtained its default position through distribution contracts and about "50% of all general search queries

52. *Id.* at 38.

53. *Id.*

54. *Id.*

55. *Id.* at 42-44.

56. *Id.* at 42.

57. *Id.* at 43. This competitive analysis done in 2020 asked what it would take for Apple to compete with Google. It also found that even if it assumed Apple needed only half of Google's technical infrastructure, it would still require $10 billion initially and $4 billion annually to maintain that infrastructure. *Id.*

58. *Id.*

59. *Id.* (paraphrasing testimony by Microsoft's CEO Satya Nadella, who called venture search investments the "biggest no fly zone").

60. *Id.* at 44 (listing the first six as "(1) the search bar integrated into browsers; (2) search widgets on Android device home screens; (3) search applications; (4) preset bookmarks within the default browser; (5) downloading an alternate browser; and (6) direct web search . . . .").

61. *Id.* at 44, 155.

62. *Id.* at 44.

63. *Id.*; Many users easily mistake browsers and search engines, although the two are separate technologies. For instance, when an iPhone user opens their Safari application, any searches actually index to Google's results, even though the search does not strictly look like Google search. *Id.* at 46.

in the United States flow[ed] through … one of the challenged contracts."[64] The court acknowledged that "[d]efault [browser] settings can be changed by the user" before delving into the significant advantage Google gained by its default position.[65] The court introduced the concept of "default bias" and, with support from expert testimony from Cal-Tech psychology professor Antonio Rangel, explained why Google's presence as the default search engine in over 50% of U.S. searches reinforced consumers' unquestioning use of Google Search.[66]

The court moved on to explain Google Search as a product, discussing both its quality and performance and its widespread success as a brand.[67] In addition to comments by representatives from Mozilla, T-Mobile, and others, the court concluded that "Google's superior product quality rests in part on its numerous innovations over the years."[68] As for branding, the court found not only that Google's brand in search was strong, but that "the public uses the term 'Google' interchangeably with internet search," supporting the view that it is the most dominant player among internet search players.[69]

Crucial to defining the market for general search services, the court briefly forayed into other platforms that internet users use to search.[70] The first kind of platforms are special vertical providers (SVPs), or "platforms that respond to queries centered on a particular subject matter."[71] The second kind of search platform is social media, which allows users "to interact with others and view photos and videos."[72] In contrast to GSEs, a search on social media sites like TikTok "only display[] content already on [the site] and [do] not contain links or information from the open web."[73] Use of both the SVP and the social media platforms do not detract from consumption on Google.[74] Quite the contrary, the court noted, "a 2009 Google study showed that users who increase their use of Facebook tend to use Google more often, not less."[75]

64. *Id.*
65. *Id.*
66. *Id.* at 46; *see also* discussion *infra* Part III.
67. *Google*, F. Supp. 3d at 56-58.
68. *Id.* at 56.
69. *Id.* at 57.
70. *Id.* at 58-62.
71. *Id.* at 58 (listing Amazon or Expedia as examples of SVPs).
72. *Id.* at 61.
73. *Id.*
74. *Id.* at 62.
75. *Id.*

Next, the court explained how search engines use advertising to generate revenue.[76] To cover the expenses of building and operating a search engine, Google (as well as Microsoft, Netflix, Snapchat, and other technology firms) sell advertising space using search and display advertising.[77] Search engines use the data from queries to better understand an individual's potential buying habits, including when, what, and how individuals make their purchases.[78] The court found that Google could target specific ads depending on where a party was in their buying cycle.[79] A product of both market share and refining its internal search algorithms, Google has reported over $200 billion in advertising revenue from 2021 to 2023.[80]

Finally, the court laid out Google's various agreements with browser developers, device manufacturers, and wireless carriers.[81] In 2021, Google paid $26.3 billion in revenue share payments to companies to distribute its search tools, giving the court a sense of the lengths to which Google went to obtain and control market share.[82] The court siloed these contracts into browser agreements and Android agreements.[83] The browser agreements made Google the default search engine on both Apple and Mozilla browsers.[84] The Android agreements with Samsung, Motorola, and Sony required the companies to "preload all 11 [Google] applications onto a new device."[85] As for the agreements with wireless carriers, Google setup incentive agreements unrelated to search, but rewarded phone retailers for "supporting the sale of Android devices and the Android ecosystem."[86]

C. The Governing Law

Twenty-three years prior, the Circuit Court for the District of Columbia affirmed in part an uncharacteristic antitrust blow against a technology firm, finding

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76. *See id.* at 62-88. Search advertising is a subsect of digital advertising in which the advertiser pays Google or another search engine provider to post advertisements based on every user's individual search advertiser. *Id.* at 62-63. Google gets revenue per click. *Id.* at 66. Because individuals search for products and results they want, digital ads are more successful than analog or physical ads because they respond directly to search data. *Id.* at 62-63.

77. *See id.* at 71.

78. *See id.* at 71-73, 179.

79. *Id.* at 73.

80. *Advertising Revenue of Google from 2001 to 2023*, STATISTA, https://www.statista.com/statistics/266249/advertis ing-revenue-of-google/ (last visited Mar. 7, 2024).

81. *Google*, F. Supp. 3d at 88-106.

82. *Id.* at 88.

83. *Id.* at 89, 97.

84. *Id.* at 89, 96.

85. *Id.* at 98. The court also found that without a Mobile Application Distribution Agreement (MADA), a manufacturer could not distribute Google's applications on their devices. *Id.*

86. *Id.* at 107.

that Microsoft violated Section 2 of the Sherman Act by its actions to obtain and protect monopoly power in the operating system market.[87] The *Google* court followed the legal framework the court articulated decades earlier in *Microsoft*.[88] Section 2 says that "[e]very person who shall monopolize, or attempt to monopolize… shall be deemed guilty of a felony."[89] For a plaintiff to prove a violation, the party has to show two elements: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition . . . of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[90] To meet the first element, there has to be a defined market and product and power within that relevant market.[91] Once the market is established, the court can use both direct and indirect evidence to demonstrate that the defendant has monopoly power in that market.[92] To meet the second element, there must be a "'willful acquisition or maintenance' of monopoly power."[93]

D. The Legal Conclusions

The U.S. brought three antitrust claims against Google, or rather, the same claim in three different markets: "general search services, search advertising, and general search text advertising."[94] Taking each market in turn, the court concluded that Google had a monopoly in general search services and general search text ads, but not in search advertising.[95]

First, the court inquired whether general search services were a market, using two categories of evidence: the *Brown Shoe* "practical indicia" and "quantitative evidence from expert economists."[96] In *Brown Shoe*, the Supreme Court looked at whether the market in question had "[1] industry or public recognition . . . [2] the product's peculiar characteristics and uses, [3] unique production facilities, [4] distinct customers, [5] distinct prices, [6] sensitivity to price changes, and [7] specialized vendors."[97] The *Google* court identified peculiar characteristics and uses, industry or public recognition, and unique production facilities to determine there was

87. *See* United States v. Microsoft Corp., 253 F.3d 34, 46 (D.C. Cir. 2001).
88. *Google*, F. Supp. 3d at 106.
89. 15 U.S.C. § 2.
90. *Google*, F. Supp. 3d at 106 (citing United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966)).
91. *Id.*
92. *Id.* at 117.
93. *Id.* at 106.
94. *Id.* at 33.
95. *Id.* at 124, 139, 142.
96. *Id.* at 108.
97. Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962).

in fact a market for general search services.[98] Google's counterargument that the real market was "query-by-query" did not persuade the court.[99] Judge Mehta noted that SVPs are not competitors to Google but entirely different services which complement each other.[100]

Once the court confirmed that general search is its own market, it used both direct and indirect evidence to find that Google obtained and maintained monopoly power in that market.[101] The court began with direct evidence of a monopoly by discussing "Google's immense revenues and large profit margins" and the company's ambivalence towards risk of competition when it changed search features.[102] Next, the court looked at indirect evidence, beginning with Google's 89.2% market share in general search.[103] It also looked at the barriers to market entry, including the astronomical costs required to build a competitor, Google's control of the distribution market via agreements with technology vendors, and the scale of both Google's search data and usage.[104]

The court used the same *Brown Shoe* factors to find that general search advertising was a relevant market.[105] However, the court looked past Google's consistent 65% market share in general search advertising concluding that the Plaintiffs could not sufficiently demonstrate "that barriers to entry protect Google's leading share in the search ads market."[106] Google avoided, crucially, a finding that it has a monopoly in general search ads.[107]

The court found that six out of the seven *Brown Shoe* factors supported a narrower relevant market for general search text ads.[108] Within this market, the court noted that only GSEs can compete for search text ads, and therefore the same barriers to entry protect Google's overwhelming market share as in general search services.[109]

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98. *Google*, F. Supp. 3d at 110-13.
99. *Id.* at 113-16.
100. *Id.* at 115-16.
101. *Id.* at 116-17.
102. *Id.* at 118.
103. *Id.* at 119.
104. *Id.* at 117-22.
105. *Id.* at 132.
106. *Id.* at 135.
107. *Id.* at 135-36.
108. *Id.* at 136-138.
109. *Id.* at 138.

Judge Mehta concluded his opinion by rejecting any inquiry into monopolistic intent, noting that "[a] finding of anticompetitive intent is not an element of a Section 2 violation."[110] Google's exclusive distribution agreements in both general search and general text advertising were sufficient for antitrust liability.[111] It also dismissed the Plaintiff's call for Rule 37(e) sanctions with a warning that it did not condone Google's decision to delete messages and that "Google avoided sanctions in this case. [But] [i]t may not be so lucky in the next one."[112] The court did enough for the time-being: Google's status as the default search engine for most U.S. consumers made it a monopolist in not one but two markets.[113]

IV. DEFAULT BIAS IN CONSUMER PSYCHOLOGY

The psychological concept of default bias is critical to the court's analysis in *Google*.[114] On the one hand, default bias is an intuitive concept: it is easier to choose the option in front of a consumer than to actively seek out an alternative provided the default option is satisfactory. But behavioral economics offers concrete evidence that defaults strongly influence consumer choices.[115] Behavioral economics asks many of the same questions about incentives, tradeoffs, and decision making found in traditional micro-economics, but behavioral economics approaches the questions using psychology. As a result of this heterodox approach, traditional assumptions about rationality or expected-utility no longer hold.[116] As one behavioral economist commented, "[w]e are finally beginning to understand that irrationality is the real invisible hand that drives human decision making."[117] Rather than making choices based on what will maximize welfare, humans are plagued by "cognitive biases of which they are largely unaware."[118]

Prospect theory is one of the pioneering ways in which behavioral economics undermines traditional expected utility analysis.[119] While traditional economics holds that a person measures their decisions based solely on expected value, prospect theory shows that bias related to certainty, probability, and possibility distorts

110. *Id.* at 186 (citing United States v. Microsoft Corp., 253 F.3d 34, 59 (D.C. Cir. 2001).

111. *Id.* at 186-87.

112. *Id.* at 187.

113. *Id.* at 187-88.

114. *Id.* at 44-47.

115. *See* Andreas Herrmann et al., *The Effect of Default Options on Choice–Evidence from Online Product Configurators*, 18 J. RETAILING & CONSUMER SERVS. 483, 483-91 (2011).

116. *See* Kahneman & Tversky, *Prospect Theory*, *supra* note 2, at 279.

117. Daniel Ariely, *The End of Rational Economics*, HARV. BUS. REV., July-Aug. 2009, at 2.

118. *Id.*

119. *See* Kahneman & Tversky, *Prospect Theory*, *supra* note 2, at 263 ("The present paper describes several classes of choice problems in which preferences systematically violate the axioms of expected utility theory.").

otherwise identical outcomes.[120] Moreover, humans are risk averse, meaning they will treat a risk of loss differently than the risk of gain even if the two scenarios present identical expected values.[121] For example, a party will value a 50% chance of winning $1000 differently than they will value a 50% chance of losing $1000, even though the expected value of each scenario is $500. Even though the expected utility from the choices is the same, the party chooses differently depending on framing, or "the decision-maker's conception of the acts, outcomes, and contingencies associated with a particular choice."[122] Kahneman and Tversky also point out that "[a] change of reference point alters the preference order for prospects."[123] This is where default bias enters the picture.

Framing not only influences consumers in the context of wins and losses, but it also changes how customers treat default products and their alternatives.[124] Generally, consumers will stick with the default option, either because they believe that by choosing the default, the seller "is implicitly recommending the default as best," or because of "cognitive and physical laziness."[125] Alternatively, if the consumer intends to deviate from the default, the default at least "serve[s] as an anchor with which the other available options can be compared."[126] In terms of the gains and losses language used earlier, a seller "should be more sensitive to utility losses following subtractive framing, whereas they should be more sensitive to economic losses following additive framing."[127] Defaults do not have unlimited influence; consumers will "distrust defaults that are set to attributes or levels very high in price."[128] Nonetheless, an intelligently priced default option "makes the decision-making process easier by demanding fewer cognitive resources" from the buyer.[129]

V. APPLYING DEFAULTS TO GOOGLE SEARCH

While only part of the entire opinion, default bias plays an important role in showing how Google achieved and protected its market-leading position. Although

120. *See id.* at 265 (stating that probability is an insufficient measure of decision making under uncertainty).

121. *See id.* at 279, fig. 3.

122. Tversky & Kahneman, *The Framing of Decision*, *supra* note 2, at 453.

123. *See* Kahneman & Tversky, *Prospect Theory*, *supra* note 2, at 286.

124. *See* Herrmann et al., *supra* note 115, at 483; Eric J. Johnson et al., *Defaults, Framing and Privacy: Why Opting In-Opting Out*, 13 MKTG. LETTERS 5, 7 (2002); *see generally* Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 AM. PSYCH. 341 (1984).

125. Johnson et al., *supra* note 124, at 7.

126. Herrmann et al., *supra* note 115, at 483.

127. *Id.* at 484.

128. *Id.* at 490.

129. *Id.* at 484.

Google was not strictly the first GSE, it quickly ascended to the top of the market and gained an inside edge against other potential competitors.[130] Once users subscribe to search on Google, they are relatively easy to retain because search queries are a habitual activity.[131] The Plaintiff's expert in *Google* testified that user retention is because internet searches are "high frequency" and "done on a familiar device that provides an instant response."[132] Users form habits on a particular device with the default search engine on that device and are much less likely to switch search engines because they will either assume Google offers the best product or because of "cognitive and physical laziness."[133] Even if a user wants to switch from the default Google search, prospect theory plays on the user's default bias to create friction against that decision.[134]

Changing from the default Google GSE presents the user with a risky decision. Assuming the user achieves adequate results from Google, the risk is that the gains from switching to Bing, DuckDuckGo, or any other competitor might not justify the efforts of switching.[135] Perhaps users are optimistic they will be able to find better technology elsewhere, but they face an uphill psychological battle to justify their decision either with research about better search providers or the time and cost of simply experimenting with other technologies.[136] Even if Google produces unsatisfactory results, only a technically savvy user may be able to identify why a search engine competitor would provide better search results.[137]

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130. See generally Brin & Page, *supra* note 6 at 109, in which Google's founders described the "PageRank" tool, which acts as "an objective measure of [webpage] importance that corresponds well with people's subjective idea of importance." Although not technically the first tool to search the internet, Google achieved de facto first-mover advantage through PageRank, which personalized user's search experience. *Id.* For a primer on the benefits from early market dominance, see Marvin B. Lieberman & David B. Montgomery, *First-Mover Advantages*, 9 STRATEGIC MGMT. J. 41 (1988). Lieberman and Montgomery define first-mover advantage as "the ability of pioneering firms to earn positive economic profits." *Id.* at 41. The authors explain that first-movers gain edges in a market through "technological leadership," "[p]reemption of scarce assets," and "switching costs," which are of particular interest here and correlate the present discussion of prospect theory and framing. *Id.* at 41, 44.

131. United States v. Google, F. Supp. 3d 1, 45 (D.D.C., 2024).

132. *Id.*

133. Johnson et al., *supra* note 124, at 7; *Google*, F. Supp. 3d at 45 (Dr. Antonio Rangel testified specifically that "[w]hen a consumer encounters their devices for the first time and they start searching . . . . [i]f that search engine that is the default generates adequate experiences, the consumer will get habitized to that").

134. *Google*, F. Supp. 3d at 47-48.

135. *Id.* at 55-56.

136. *Id.*(acknowledging that Google's search engine is best-in-class, supported both by internal quality studies and the testimony of representatives from Apple, Mozilla, and others).

137. *Id.* at 56-57.

For most users who do not understand search engines, the following hypothetical demonstrates that the prospect of an alternative is likely framed negatively. The user will speculate that the effort to change is not worth the hassle; the alternatives are likely to either equal or underperform the default. This provides the user with three alternatives, each (for the sake of experiment) worth ~33.3%: improve, equal, or fall short of the status quo. Given that there is a ~67% chance the change is not worth the work, that leaves only a 33% chance the decision is worth it. All the alternatives cost $0 to the user, so they are likely evaluated in time and effort instead. At this point, the user faces a ~67% chance of a losing scenario versus a ~33% chance of using the best search engine without any additional effort. For devices where Google is the default, prospect theory precludes any reasons to change to an alternative search engine.

By contracting with distributors like Apple and Samsung, Google established itself as the default search tool on close to half of American devices.[138] Once it was the go-to for most users, default bias created a psychological moat to protect Google's market presence.[139] The company's own behavioral economics team articulated the issue well: "[i]nertia is the path of the least resistance" and "[p]eople tend to stick with the status quo, as it takes more effort to make changes."[140]

VI. IMPLICATIONS AND QUESTIONS AFTER THE *GOOGLE* DECISION.

Competitive innovations led Google to become the dominant search engine in the market, but Judge Mehta notes that Google's distribution agreements with Apple, Mozilla, Samsung, and other distribution partners "have significantly contributed to Google's ability to maintain its highly durable monopoly."[141] By nature, Google's presence in search and advertising created "network effects," allowing the product to develop the greater its usage.[142] First, U.S. consumers who bought a new device were increasingly likely to have Google as their default search engine which led to higher use.[143] Second, high search volumes provided data to create more predictable, accurate, and helpful search results.[144] Third, better searches led to more effective advertising, and by extension, clicks, all creating higher revenues for Google.[145] For over two decades, Google's business plan was not only self-

138. *Id.* at 156-57.

139. *Id.* at 44-45.

140. *Id.* at 45.

141. *Id.* at 145.

142. Tim Stobierski, *What Are Network Effects?*, HARV. BUS. SCH. ONLINE (Nov. 12, 2020), https://online.hbs.edu/blog/post/what-are-network-effects.

143. *See Google*, F. Supp. 3d at 119, 156-57.

144. *Id.* at 62-63.

145. *Id.*

sustaining but tremendously successful, leading Google's parent company, Alphabet Corporation, to be one of only six U.S. companies with a market capitalization over $1 trillion.[146] Unfortunately, Google's success morphed into monopoly under the Sherman Act.[147]

The *Google* decision presents multiple unanswered questions about the state of the case, antitrust law, and public policy. The most obvious is whether the decision will stand. First, the parties will return to the district court in April 2025 for a remedies hearing.[148] The Department of Justice (DOJ) listed numerous possible remedies, but they are primarily asking for the court to require Google to spin off the Chrome browser business.[149] According to Google's Chief Legal Officer, the DOJ's proposed spinoff is a "wildly overboard proposal" which would "[e]ndanger the security and privacy of millions of Americans" and "[c]hill [Google's] investment in artificial intelligence," among other problems.[150] Regardless of the final remedy, Google intends to appeal the decision.[151] If the 2001 *Microsoft* decision is predictive, Google's prospects for reversal look grim.[152]

The second question is whether *U.S. v. Google* represents the entrenchment of psychology into the antitrust "consumer welfare" analysis. At the very least, the traditional view of consumer welfare does not account for the complicated ways companies view consumer products, and the *Google* case is the perfect example.

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146. *See Market Capitalization of Alphabet (Google) (GOOG)*, COS. MKT. CAP, https://companiesmarketcap.com/alphabet-google/marketcap/ (last visited Feb. 17, 2025). Market capitalization is the total number of outstanding shares times the share price. *Id.* The other five companies valued over $1 trillion were Apple, Microsoft, Amazon, Nvidia, and Meta. *See Market Capitalization of Apple (AAPL)*, COS. MKT. CAP, https://companiesmarketcap.com/apple/marketcap/ (last visited Feb. 17, 2025); *Market Capitalization of Microsoft (MSFT)*, COS. MKT. CAP, https://companiesmarketcap.com/microsoft/marketcap/ (last visited Feb. 17, 2025); *Market Capitalization of Amazon (AMZN)*, COS. MKT. CAP, https://companiesmarketcap.com/amazon/marketcap/ (last visited Feb. 17, 2025); *Market Capitalization of NVIDIA (NVDA)*, COS. MKT. CAP, https://companiesmarketcap.com/nvidia/marketcap/ (last visited Feb. 17, 2025); *Market Capitalization of Meta Platforms (Facebook) (META)*, COS. MKT. CAP, https://companiesmarketcap.com/meta-platforms/marketcap/ (last visited Feb. 17, 2025).

147. *Google*, F. Supp. 3d at 187-88.

148. Lauren Feiner, *DOJ Says Google Must Sell Chrome to Crack Open its Search Monopoly*, THE VERGE (Nov. 20, 2024, 10:56 PM), https://www.theverge.com/2024/11/20/24300617/doj-google-search-antitrust-chrome-breakup.

149. *Id.*

150. Kent Walker, *DOJ's Staggering Proposal Would Hurt American Consumers and America's Global Technological Leadership*, GOOGLE, THE KEYWORD (Nov. 21, 2024), https://blog.google/outreach-initiatives/public-policy/doj-search-remedies-nov-2024/.

151. Dara Kerr, *Google is Defiant After Losing Antitrust Lawsuit and Being Called a 'Monopolist'*, NAT'L PUB. RADIO (Aug. 6, 2024, 4:44 AM), https://www.npr.org/2024/08/06/nx-s1-5064669/google-loses-antitrust-monopoly-justice-department-lawsuit.

152. United States v. Microsoft Corp., 253 F.3d 34,118 (D.C. Cir. 2001) (affirming in part the D.C. District Court's decision, declaring Microsoft monopolized the PC operating system market).

Google has an internal behavioral economics team that applies the latest insights from both economics and psychology when crafting a user experience.[153] By basing its distribution strategy on default bias, Google has built an entire business by leveraging fundamental psychological principles.[154] When the New Brandeis School suggests that consumer welfare should encompass broader values than expected utility, it offers a way forward for antitrust analysis that embraces the same premise: consumers are multifaceted.[155] Even if *Google* gets overturned and regulators hold to their laissez-faire antitrust approach, the antitrust analysis needs to evolve to capture the latest developments from economics, psychology, and other disciplines. Regulators who wish to claim they can protect consumers must be able to fully understand the companies they are regulating. The *Google* decision is an encouraging sign that this is possible.

Third, the *Google* decision raises broader policy questions about how far antitrust enforcers should crack down on large technology companies. For decades, a "digital divide" separated Silicon Valley and Washington D.C., as many innovators either relished or regretted a "gap in understanding between [the] lawmakers responsible for resolving the tech community's most pressing issues and the industry leaders who first call attention to these issues."[156] Regulators' decision to investigate Google and three other technology giants shows that the divide is shrinking, especially considering the publicized hearings, calls for a repeal of liability shields, and even an outright ban on the social media firm, TikTok.[157] Accepting that regulation of specific elements of the technology industry is overdue, the *Google* decision looks like a step toward a healthier internet market.

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153. United States v. Google, F. Supp. 3d 1, 45(D.C.C. 2024).

154. *Id.* at 46 ("Google appreciates that increased choice friction discourages users from changing the default.").

155. *See* Stucke, *supra* note 30, at 599.

156. Tony Romm, *Silicon Valley: D.C. Doesn't Get Tech*, POLITICO (July 6, 2010, 4:35 AM), https://www.politico.com/story/ 2010/07/silicon-valley-dc-doesnt-get-tech-039384.

157. *See* Clare Duffy & Brian Fung, *CEOs of Meta, X, Discord, TikTok, and Snap Testify Before the Senate Judiciary Committee*, CNN (Jan. 31, 2024), https://www.cnn.com/tech/live-news/meta-x-discord-tiktok-snap-chiefs-testimony-senate/index.html (featuring a viral apology by Meta CEO Mark Zuckerberg to the families of teens who committed suicide or died by drugs accessed on social media platforms); Russell Brandom & Makena Kelly, *Trump Calls for Last-Minute 230 Repeal as Part of Defense Spending Bill*, THE VERGE (Dec. 2, 2020), https://www.the verge.com/2020/12/2/22037118/trump-section-230-repeal-ndaa-rider-facebook-twitter-moderation (reporting that the outgoing president called for Congress to repeal § 230 of the Communications Decency Act of 996, which essentially provides that social media companies cannot be liable for the speech published on their sites); TikTok Inc. v. Garland, No. 24-656, 2025 WL 222571, at *1 (U.S. Jan. 17, 2025) (upholding the Foreign Adversary Controlled Applications Act, which mandates that on Jan. 19, 2025, it is unlawful to support the TikTok application until the U.S. operation divests from Chinese ownership).

However, of all the ways to control technology companies, antitrust is not the optimal place for regulation. Antitrust is like criminal law in that it acts *post hoc*, but companies like Google did not necessarily do anything wrong. Monopoly power and protection is simply a matter of degree: at a certain point in Google's history, it behaved the same, presumably without violating antitrust laws. As Judge Mehta conceded, exclusive dealing is "not condemned per se by antitrust laws, even if they involve a dominant firm."[158] Moreover, the judge also acknowledged that Google's search and advertising tools are best in class.[159] Antitrust regulators did not worry about the company's dominance until well after the word "Google" became a verb in American vernacular.[160] Yet, to avoid antitrust regulation, Google would have to admit it was doing "too well" and stop competing in the market, drawing the ire of their shareholders.[161] To the extent large technology firms do genuine harm to consumers and market participants, antitrust requires regulators to draw apparently random lines in the sand to prevent large companies from becoming "noxious."[162]

VII. CONCLUSION

United States Senator Amy Klobuchar, a former lawyer and outspoken politician for antitrust enforcement, wrote that when technology companies act anti-competitively, "they should be made to pay, whether it be with fines to compensate for harm and wrongdoing or–if necessary to rectify ill-gotten marketplace dominance–by forcing the sale of assets or even breaking them up."[163] Her comment captures the regulatory fervor of the New Brandeis School. The *United States v. Google* decision is a landmark case for these new wave modern antitrust advocates. The *Google* opinion also shows how courts can use multi-disciplinary methods like

158. *Google*, F. Supp. 3d at 152 (citing United States v. Microsoft, 253 F.3d 34, 69 (D.C. Cir. 2001)).

159. *Id.* at 143-44 ("Google says that it has secured default distribution, not through exclusionary conduct, but by developing a 'superior product' through constant innovation. . . . In a sense, Google is not wrong. It has long been the best search engine, particularly on mobile devices.").

160. *See Federal Trade Commission Closes Google/DoubleClick Investigation*, FED. TRADE COMM'N (Dec. 20, 2007), https://www.ftc.gov/news-events/news/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation (finding the acquisition of DoubleClick would not "substantially lessen competition").

161. Google's parent company, Alphabet Inc., is incorporated in Delaware. Under Delaware law, "corporate directors have a fiduciary duty to act in the best interests of the corporation's stockholders." McRitchie v. Zuckerberg, 315 A.3d 518, 540 (Del. Ch. 2024) (internal quotation marks and citation omitted).

162. *See* BRANDEIS , *supra* note 29.

163. AMY KLOBUCHAR, ANTITRUST: TAKING ON MONOPOLY POWER FROM THE GILDED AGE TO THE DIGITAL AGE 317 (2021).

behavioral economics to enhance how they understand market behavior, a promising sign that the law can use the same tools for regulation that companies use to grow.[164]

However, this note also argues that antitrust is the wrong place to regulate large technology companies. Where companies or directors facilitate harm or present national security risks–as Meta and TikTok may–courts should enforce the law to protect consumers accordingly.[165] Google competed with a superior product.[166] A decision like *Google* distorts incentives for some of the most successful and innovative companies in the United States, and the New Brandeis School's broader standard fails to give clear guidance to other companies which want to avoid investigation.[167] Politicians and regulators are understandably biased toward greater regulation; they must be careful not to hamstring America's best firms along the way.

164. *See* discussion of default bias *supra* Part III; *see also Google*, F. Supp. 3d at 186-87

165. *See* Duffy & Fung, *supra* note 157; Exec. Order No. 13942, 3 CFR § 412 (Aug. 6, 2021) (finding that "TikTok automatically captures vast swaths of information from its users . . . . This data collection threatens to allow the Chinese Communist Party access to Americans' personal and proprietary information").

166. *Google*, F. Supp. 3d at 56.

167. On the new frontier of Artificial Intelligence, cash-rich technology firms like Google, Apple, and Microsoft lead investments in the space. Technologists and politicians also agree that U.S. failure to lead in A.I. presents its own national security risks. *See* Walker, *supra* note 150.