No. 23-60167

IN THE
United States Court of Appeals
FOR THE FIFTH CIRCUIT

ILLUMINA, INC. AND GRAIL, INC.,

Petitioners,

v.

FEDERAL TRADE COMMISSION,

Respondent.

On Petition for Review from the Federal
Trade Commission (Docket Number 9401)

BRIEF OF 27 PROFESSORS OF ANTITRUST, ECONOMICS, OR BUSINESS AS *AMICI CURIAE* IN SUPPORT OF RESPONDENT

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I certify that the following listed persons and entities have an interest in the case's outcome as described in Fifth Circuit Rule 28.2.1. These representations are made so that the judges of this Court may evaluate possible disqualification or recusal.

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INTEREST OF AMICI CURIAE

The undersigned amici curiae are professors of antitrust law, economics, and business who are interested in the proper interpretation and enforcement of antitrust law. (A list of the signatories is attached as Addendum A.)[1] We submit this brief to assist the Court in analyzing the issues presented by this case: a vertical merger of an upstream supplier (Illumina) and a downstream manufacturer (Grail). Vertical mergers can reduce competition by foreclosing competitors from necessary inputs or distribution and injuring consumers in the process. They can also generate efficiencies that more than offset their anticompetitive effects and thereby prevent consumer harm.

In a decision joined by every Commissioner, the Federal Trade Commission (FTC) held that Illumina's acquisition of Grail may distort competition in the research, development, and commercialization of early-cancer detection tests, a revolutionary healthcare product that could save thousands of lives. The FTC found that the merger will give Illumina the ability and incentive to disadvantage

[1] The parties to this appeal have consented to this amicus brief. No party's counsel has authored this brief in whole or in part; no party's counsel has contributed money intended to fund preparing or submitting the brief; and no person other than the amici curiae or their counsel has contributed money that was intended to fund preparing or submitting the brief. The signatories' institutional affiliations are provided for information only; the institutions have not authorized or endorsed this brief.

rivals in the race to develop superior tests, reducing consumer choice and dampening innovation. While the merging parties argue that the transaction's efficiencies would enable Grail to develop a superior test more quickly, the FTC found that those efficiencies had not been demonstrated and thus the merger was unlikely to benefit consumers.[2]

INTRODUCTION

Illumina makes next-generation sequencing (NGS) platforms, which analyze genetic material from blood samples. Grail has developed the first commercially marketed multi-cancer early-detection (MCED) test, which utilizes blood samples drawn from patients and needs an NGS platform to read the samples. Illumina's acquisition of Grail is therefore a vertical acquisition, combining a product (an MCED test) and a critical input (an NGS platform).

The FTC concluded that the acquisition would create a "reasonable likelihood" of a substantial lessening of competition, the test of liability under Section 7 of the Clayton Act. *See United States v. Marine Bancorp. Inc.,* 418 U.S. 602, 622-23 (1974).[3] The FTC found that Illumina would have the ability and

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[2] The European Commission prohibited the acquisition on the same rationale. *See* Press Release, Eur. Comm'n, *Commission Prohibits Acquisition of GRAIL by Illumina*, Sept. 6, 2022 ("The merger would have stifled innovation, and reduced choice").

[3] Other leading cases use similar language. *See Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962) ("reasonable probability"); *Hosp. Corp. of Am. v. FTC*, 807 F.2d 1381, 1389 (7th Cir. 1986) (Posner, J.) ("appreciable danger").

incentive to disadvantage actual or potential rivals in the competition with Grail to develop MCED tests that are accurate, affordable, approved by the Food and Drug Administration (FDA), covered by third-party payers, and administrable at scale.[4] Tests that achieved all those attributes would transform cancer detection and save thousands of lives. But if competing MCED innovators are handicapped by lack of access to Illumina's platform, they will be discouraged from investing as much in innovation and handicapped when they do invest. In that event, the results of this rivalry may be determined by vertical foreclosure, rather than competition on merits, and there could be no assurance that the market would produce the best outcome. "Federal antitrust law . . . aims to preserve the free functioning of markets and foster participation by a diverse array of competitors." *United States v. Am. Airlines Grp. Inc.*, Civil No. 21-11558-LTS, 2023 WL 3560430 at *1 (D. Mass. May 19, 2023). The law "is not concerned with making individual competitors larger or more powerful." *Id.*

Illumina and Grail object to the FTC's decision. They argue that the merged firm would not foreclose Grail's competitors because refusing to deal with them would be unprofitable. The true motivation for the transaction, they contend, is to accelerate the development and commercialization of a superior MCED test

[4] Grail's existing test does not meet these standards. It is expensive, has not received full FDA approval, and is not generally covered by public or private health plans.

through closer collaboration between the merging parties. They also claim that the combination would lower prices by eliminating double marginalization (EDM).[5] The FTC rejected these claims, finding that the parties had failed to meet the basic requirements of a valid efficiency justification. They had not shown that their asserted efficiencies were quantified, verified, merger specific, and sufficiently large to make the transaction an overall benefit to consumers.

In this brief, we do not evaluate the evidentiary support for the parties' conflicting contentions. Our goal is to set forth the legal and economic principles that should determine the result once the facts are found.[6] We offer three main conclusions. First, vertical mergers involving a dominant firm can pose a serious threat to competition; they should not be viewed as presumptively procompetitive. Second, the FTC employed an appropriate analytical framework in assessing the transaction's likely anticompetitive effects. Third, the FTC also applied valid and well-accepted criteria in rejecting the merging parties' efficiency claims.

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[5] EDM is a well-recognized efficiency that occurs when a vertical merger leads the upstream firm to transfer its input to the downstream firm at cost, eliminating the markup at the upstream level and inducing the merged firm to lower its downstream price. As explained below, there are reasons why EDM may not be a significant or cognizable procompetitive justification in a particular case.

[6] We also do not evaluate the parties' proposed fix, the "Open Offer." The FTC rejected it as inadequate and we understand that other amicus briefs will address it.

Accordingly, if the FTC's findings of fact are supported by the evidence,[7] its ruling that the acquisition violated Section 7 should be upheld.

SUMMARY OF ARGUMENT

Like horizontal mergers, vertical mergers are sometimes procompetitive. But they can also distort competition and injure consumers, particularly when they involve the supply of a critical input by a dominant firm. The leading antitrust treatise sets forth 10 ways in which a vertical acquisition can reduce competition, including by foreclosing rivals from critical inputs. *See* IV-A PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶¶ 1004-13 (4th ed. 2016). Specifically, the acquisition of a downstream firm by a dominant input supplier may give the dominant firm the ability and incentive to (1) foreclose competing downstream firms by refusing to supply the critical input, degrading its quality, delaying its supply, or raising its price to (2) enable the acquired firm to raise price, reduce research and development (R&D), or otherwise compete less intensely. Such foreclosure deprives the downstream market of a level playing field and may result in significant harm to competition, consumers, and innovation. *See* Steven C. Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L.J. 1962 (2018). It is

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[7] To be accepted by an appellate court, an agency's findings of fact must be supported by substantial evidence. *See La. Pub. Serv. Comm'n v. FERC,* 522 F.3d 378, 395 (D.C. Cir. 2008); *Greater Bos. Television Corp. v. FCC*, 444 F.2d 841, 853 (D.C. Cir. 1970).

incorrect, therefore, to claim that a vertical merger is always or inherently procompetitive.

Vertical mergers can also produce significant efficiencies. The merging firms may be able, for example, to enhance coordination of production and R&D or eliminate double marginalization. The overall effect of a vertical merger, therefore, may be procompetitive or anticompetitive, depending on the facts of the case. This Court should not approach the matter with the presumption that because this merger is vertical, it is likely to be procompetitive. No case articulates such a presumption and economic theory and empirical evidence do not justify it.

The risk to competition is especially great when the upstream market is dominated by a single firm supplying a critical input and the downstream market is characterized by competition among differentiated firms to develop a new product. In that case, the foreclosure of downstream competitors may reduce the choices available to consumers and suppress or distort innovation.

The FTC relied on those principles in concluding that Illumina's acquisition of Grail posed a substantial threat to competition. The FTC found that (1) Illumina is the dominant NGS platform and no other firm provides a service of comparable quality; (2) Illumina's control of this critical input gives it the *ability* to raise the costs of, or otherwise disadvantage, Grail's competitors in the relevant market: the

research, development, and commercialization of MCED tests;[8] (3) Illumina would have an *incentive* to do so, because the profits it would lose by discriminating against Grail's rivals would be more than made up by the profits it would make if Grail won the innovation race or rivals were handicapped; and (4) as a result, the merger posed a substantial threat to competition and consumers.

The merging parties argue that there is no risk to competition because Illumina would never refuse to deal with Grail's rivals as that would be unprofitable. But that ignores the large profits Illumina would receive if Grail's test were approved by the FDA or accepted by payers substantially before rivals' tests. It also ignores Illumina's ability to handicap rivals through measures short of refusals to deal, such as delaying, degrading, or raising the price of its input. Moreover, why would Illumina not favor Grail? Illumina will obtain the "vast downstream profits [that] await the winner of the MCED innovation race," FTC Opinion 50, only if Grail wins the innovation race.

[8] The Administrative Law Judge (ALJ) found this to be the relevant market and the Commission upheld that determination. *See* FTC Opinion 24-34. The merging parties argue that this market should be rejected because Grail's rivals have not yet commercialized any tests and thus it is not possible to evaluate whether their tests will be "reasonably interchangeable" with Grail's test, the standard for market definition. *See Brown Shoe*, 370 U.S. at 325. But the market the Commission and ALJ defined is an innovation market, in which the relevant competition is the competition to develop a commercially viable MCED test. In this market, Grail is competing with the other test developers, as Grail itself recognized. *See* FTC Opinion 33 (citing Grail internal presentation identifying Exact, Thrive and three other developers as "Competitive Threats"). If those firms were unlikely to develop tests that would be reasonably interchangeable with Grail's test, Grail would not regard them as competitive threats.

The merging parties maintain that even if the acquisition benefits Grail more than its rivals, it will enhance competition and benefit consumers because of the efficiencies it will create. The parties claim that it will speed up the development of a superior MCED test by enhancing collaboration between Illumina and Grail, and that it will also reduce the costs and thus the prices of Grail's tests by eliminating double marginalization.

The FTC rejected those efficiency claims because it found that they failed the fundamental criteria of a valid procompetitive justification. According to both the Horizontal Merger Guidelines and the case-law, a procompetitive justification must be quantified, verified, merger-specific, and likely to benefit consumers. Moreover, the procompetitive effects of a merger must outweigh its anticompetitive effects, making it likely that the transaction would enhance consumer welfare. Those requirements distinguish efficiency claims that are likely to be real from those that are speculative, aspirational, pretextual, or puffery. For example, the FTC refused to accept the parties' principal efficiency claim—that the merger would accelerate the development of a cheap and effective cancer test—because it was vague and unsupported. The Commission also found that the parties did not attempt to quantify the value or scale of the claimed research advances, the costs necessary to achieve them, or the obstacles they faced. Because the parties

did not offer a realistic business plan, the Commission could not conclude that the acquisition would be likely to promote innovation.

ARGUMENT

A. A vertical merger involving a dominant firm may pose a substantial threat to competition; it is not presumptively procompetitive.

Leading antitrust scholars recognize that vertical mergers can pose a substantial threat to competition. *See, e.g.,*IV-A AREEDA & HOVENKAMP, ANTITRUST LAW, *supra*; Salop, *Invigorating Vertical Merger Enforcement*, *supra*; Jonathan B. Baker, *Exclusion as a Core Competition Concern,* 78 ANTITRUST L.J. 527 (2013); Jonathan B. Baker, Nancy L. Rose, Steven C. Salop & Fiona Scott Morton, *Five Principles for Vertical Merger Enforcement Policy*, 33 ANTITRUST 12 (Summer 2019); William P. Rogerson, *Modelling and Predicting the Competitive Effects of Vertical Mergers*, 53 CAN. J. ECON. 407 (2020). The danger of foreclosure is most acute when one of the merging parties is a dominant firm. A dominant firm upstream may be able to disadvantage competitors of its downstream partner by cutting off their access to a critical input, or reducing its quality, delaying its supply, or increasing its price, thereby raising rivals' costs or otherwise weakening them and enabling the downstream partner to elevate its prices, lower its quality, or reduce its investment in R&D. *See* Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price,* 96 YALE L.J. 209 (1986). Such exclusionary conduct

may also change the outcome of an innovation race in the downstream market, causing the downstream partner to prevail even though, absent the merger, one of its competitors would have developed a superior product.[9]

In short, economic theory shows that vertical mergers can reduce competition, diminish consumer choice and innovation, and raise prices. Empirical studies have also found evidence that vertical mergers cause harm. For example, Jonathan Baker and co-authors concluded that the partial vertical merger of News Corp and DIRECTV led to anticompetitive input foreclosure because News Corp raised the price of Fox News to rivals of DIRECTV. *See* Jonathan B. Baker et al., *The Year in Economics at the FCC, 2010-11: Protecting Competition Online*, 39 REV. INDUS. ORG. 297, 306 (2011). Jean-Francois Houde found that an increase in the number of vertically integrated gas stations in Quebec City resulted in higher prices. *See* Jean-Francois Houde, *Spatial Differentiation and Vertical Mergers in Retail Markets for Gasoline*, 102 AM. ECON. REV. 2147 (2012). Marissa Beck and Fiona Scott Morton reviewed 29 recent empirical studies and found that the results were "decidedly mixed." While some vertical mergers enhanced competition, in half the cases vertical integration led to anticompetitive effects. *See* Marissa Beck & Fiona M. Scott Morton, *Evaluating the Evidence on Vertical Mergers*, 59 REV.

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[9] As a result, an anticompetitive presumption may be warranted when the vertical acquisition involves a dominant upstream supplier. *See* Baker, Rose, Salop & Scott Morton, *Five Principles for Vertical Merger Enforcement Policy*, *supra* at 16-17.

INDUS. ORG. 273 (2021) (concluding that "the empirical evidence . . . should certainly not be used as a basis for a presumption that most vertical mergers are procompetitive or harmless").

The case-law also recognizes that vertical mergers can stifle competition. *Brown Shoe* declared that the "primary vice" of a vertical merger is that it may foreclose competitors from a portion of the market and act as a "clog on competition." *Brown Shoe*, 370 U.S. at 323-24 (internal quotations omitted); *accord Ford Motor Co. v. United States*, 405 U.S. 562 (1972). Later cases ask whether the transaction is likely to increase the ability or the incentive of the merged firm to foreclose rivals from key sources of supply or distribution and whether this foreclosure is likely to harm competition. *See United States v. AT&T Inc.*, 310 F. Supp. 3d 161, 243-45 (D.D.C. 2018), *aff'd*, 916 F.3d 1029 (D.C. Cir. 2019). No case holds that vertical acquisitions are presumptively procompetitive.

Chicago School scholars once argued that vertical mergers cannot harm competition because there is only a "single monopoly profit" in a chain of distribution and an upstream monopolist can capture that entire profit simply by raising its price to the monopoly level. It cannot increase its profits by buying a downstream firm. If it does acquire a downstream firm, the motivation must be increased efficiency. *See* ROBERT H. BORK, THE ANTITRUST PARADOX 229 (1978); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV.

925, 936-37 (1979). Subsequent research has shown, however, that this single-monopoly-profit theory is valid only in extreme circumstances. In most instances, a vertical merger creates some opportunity for the upstream firm to increase its profits by favoring its downstream partner or disadvantaging its downstream rivals. *See* Jonathan B. Baker, *Taking the Error Out of "Error Cost" Analysis: What's Wrong with Antitrust' s Right*, 80 ANTITRUST L.J. 1, 15-17 (2015); Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 400-01 (2009); Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COL. L. REV. 515 (1985).

In this case, the single monopoly profit theory does not apply. The theory assumes, among other things, that the downstream market—the market for MCED tests—is perfectly competitive. *See* Michael H. Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 ANTITRUST L.J. 513, 517 (1995). But two of the well-known conditions for perfect competition—homogenous products and perfect information—are not satisfied. Grail and its rivals are offering or developing differentiated products, and Illumina does not and will not have perfect information about the profitability of each downstream firm. As a result, it is highly unlikely that Illumina would have the power or knowledge to extract *all* the supracompetitive profits from the developer of a superior MCED test. The only way Illumina could obtain all the "vast downstream profits [that]

await the winner of the MCED innovation race," FTC Opinion 50, is by owning the winner.

In sum, economic theory, empirical studies, and case-law make clear that vertical mergers may pose a substantial threat to competition. No decision or generally applicable economic theory holds that vertical mergers are presumptively procompetitive. On the contrary, the Beck-Scott Morton review of the empirical literature found that approximately half the mergers studied were anticompetitive.

B. The FTC employed valid analytical principles in concluding that the merger of Illumina and Grail is reasonably likely to produce anticompetitive effects.

The FTC began its analysis of anticompetitive effects by noting that older cases like *Brown Shoe* use the "share of the market foreclosed" and factors like entry barriers to determine whether a vertical merger may substantially lessen competition. *See* FTC Opinion 40-41. More recent cases, in contrast, ask "whether a transaction is likely to increase the ability and/or incentive of the merged firm to foreclose rivals from sources of supply or from distribution outlets." *Id.* at 41.[10] The Commission concluded that the merger of Illumina and Grail would have anticompetitive effects under either framework. We focus on the ability-and-

[10] The FTC properly ruled that "While Complaint Counsel must demonstrate that both ability and incentive exist, it need not prove that the merger created both." *Id.* at 49. This is so because an acquiring firm may have the ability to foreclose downstream competitors prior to the merger. If the merger increases its incentive to do so, "the effect of such acquisition may be substantially to lessen competition." 15 U.S.C. § 18.

incentive framework because it is grounded in economics, reflects current case-law, and was endorsed by the merging parties.[11]

Illumina's *ability* to foreclose or otherwise disadvantage Grail's rivals is central to the anticompetitive theory of this case. If Illumina cannot weaken or eliminate these rivals, it cannot enable Grail to charge a supracompetitive price or gain an artificial boost in the race to develop a better test. The FTC found that Illumina had the ability to raise the costs of Grail's rivals because Illumina was the dominant provider of a critical input. The Commission stated: "Illumina is currently the dominant provider of NGS, a necessary input for MCED test development, and Illumina's test developer customers have no viable alternative to Illumina's NGS in the reasonably near future." *Id.* at 47. The Commission adopted the ALJ's findings that "substitute platforms are inadequate in terms of throughput, accuracy, cost, level of development, risks associated with adoption, or a combination of those factors." *Id.* at 7-8. Indeed, Grail itself characterized Illumina as the "gold standard." *Id.* at 6.

The FTC found that Illumina could use its control of this critical input to disadvantage Grail's rivals in many ways, including "increasing prices, withholding or degrading access, reducing service or support, or otherwise

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[11] The merging parties stated that "it was Complaint Counsel's burden to demonstrate that Illumina has the ability and incentive to foreclose during the relevant timeframe." FTC Opinion 41 n.26.

increasing the costs or reducing the efficiency or efficacy of Illumina's NGS platforms for MCED rivals." *Id.* at 40. In short, Illumina could hobble Grail's rivals without refusing to deal with them altogether.

The FTC also concluded that the merged firm had the *incentive* to disadvantage Grail's competitors. It found that the potential profits available to the winner of the innovation race are "enormous." *Id.* at 49 & 50. Because the merged firm would obtain these profits if Grail wins the innovation race but would not obtain them if a competitor wins, its incentive to tilt the playing field in favor of Grail is large. Moreover, the incentive is robust: Illumina can favor Grail not only by discriminating against its rivals—charging them more, reducing the quality of the service it provides them, failing to share technological advances with them, or refusing to deal with them—but also by giving Grail preferential access to discounts, support, and technical information.[12]

Historical evidence corroborates the FTC's conclusion. Illumina initially owned Grail and, when it did, it favored Grail—and disfavored Grail's rivals—by giving Grail "special pricing and other benefits," including "deep discounts." When Illumina divested its majority interest, those special benefits "went away." *Id.* at 52 (quoting deSouza Tr. 2207). An Illumina Q&A document explained that

[12] Because some of these methods are relatively inexpensive and difficult to detect, they increase Illumina's incentive to foreclose Grail's rivals. They also make it more likely that a behavioral remedy—the merging parties' proffered solution—would be inadequate.

this change would "level[] the playing field" and "accelerate the liquid biopsy market for all." *Id.*[13]

Illumina's incentive to favor Grail over its competitors increased when it reacquired ownership of Grail. Complaint counsel's economic expert, Dr. Fiona Scott Morton, explained why:

> Illumina now stands to profit substantially more from the sale of a GRAIL MCED test than it does from the sale of a rival MCED test, because on the GRAIL MCED test it will earn a margin from NGS sales plus GRAIL's margin from the test itself, while on the rival's test it will earn just the margin on NGS sales.

Id. at 49-50.[14] The ALJ found that this incentive was muted because most of Grail's rivals had not yet produced tests that were substitutes for Grail's. The Commission concluded, however, that once the rivals' tests were commercialized, they would compete directly with Grail and thus "diversion from other tests to Illumina/GRAIL is likely." *Id.* at 57.

The diversion of sales from one competitor to another is not enough, by itself, to establish injury to the competitive process or harm to consumers. *See* IV-A

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[13] The merging parties contend that there is no evidence that Illumina foreclosed any of Grail's rivals when Illumina had full ownership of Grail. That is true if foreclosure means taking affirmative steps to drive out rivals. But Illumina did give special benefits to Grail, depriving its competitors of a level playing field. And while those benefits helped Grail survive, they might also have helped the competitors at least as much.

[14] In addition, when Illumina reduced its interest in Grail, its favoritism of Grail declined. This indicates that Illumina's willingness to favor Grail and foreclose rivals is a function of its ownership interest in Grail.

AREEDA & HOVENKAMP, *supra,* ¶ 1003b at 163 ("[E]ven when foreclosure has the effect of making it more difficult for one or more existing firms to find inputs or patronage, injury to competition is not obvious and an additional explanation must be supplied."). As the treatise indicates, foreclosure of some downstream firms does not automatically injure competition because consumers may be able to switch to other downstream firms that obtain their inputs elsewhere. Here, however, the FTC found that all of Grail's competitors relied on Illumina and thus foreclosure of these firms would threaten competition. *See* FTC Opinion 59-61.

The Commission concluded that the threat was substantial. It found that Grail's rivals were significant competitors who were capable, through the rivalry among them, of developing and commercializing superior tests. The FTC noted that one competitor, Exact/Thrive, had already accomplished almost as much as Grail and that the others, while distinctly further behind, are working actively toward the same goal. Because there are at least seven active competitors and one of them has developed a comparable test, the Commission concluded that interfering with this rivalry created a material risk of suppressing innovation. *See id.* at 54-56.[15]

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[15] The merging parties stress that Grail is the market leader. It offers the only test that patients can now use. But it does not follow that foreclosing Grails' rivals would have no adverse effect on innovation. As the Commission found, and the parties do not dispute, Grail's rivals possess the capacity and incentive to develop competing superior tests.

In short, the Commission ruled that it is better to have Grail and seven rivals compete to develop superior cancer tests than to allow Illumina to acquire the market leader and tilt the race in its favor. At one point, Illumina agreed with this logic. When it released Grail to compete as an independent firm, it told investors that it was better to have "as many shots on goal as possible." *Id.* at 60. At the same time, Illumina eliminated its special benefits for Grail and explained that this change would "level[] the playing field" and "accelerate the liquid biopsy market for all." *Id.* at 52. Its CEO stated that "There are 70-plus players in the liquid biopsy space. We want to encourage them to look at all different avenues because this is important and the outcome's terrific for mankind." *Id.* at 60. These statements are consistent with the research on innovation. While innovation is a function of many factors, it is stimulated by active rivalry among diverse participants. *See* Jonathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 ANTITRUST L.J. 575, 587 (2007); Richard J. Gilbert & A. Douglas Melamed, *Innovation Under Section 2 of the Sherman Act*, 84 ANTITRUST L.J. 1, 19 (2021) ("Competition from actual or potential rivals can be a powerful incentive for innovation").

C. The FTC's analysis of the efficiencies issue was appropriate.

Illumina's acquisition of Grail could be beneficial to competition and consumers, despite the foreclosure of rivals, if the acquisition enabled the merged

firm to produce a much superior cancer test more quickly and cheaply. The merging parties contend that will result because the acquisition will generate substantial efficiencies.

The FTC found, however, that the merging parties had not established their efficiency claims. They did not show that each asserted efficiency met the basic requirements of a valid procompetitive justification that are set forth in Section 10 of the Horizontal Merger Guidelines and endorsed by the caselaw. As these authorities make clear, efficiencies must be quantified, verified, merger-specific, and, in combination, likely to prevent consumer harm.

These requirements are needed because studies show that mergers frequently do not achieve the benefits their proponents assert. In fact, there is considerable evidence that significant mergers usually *reduce* the efficiency of the merging firms. *See* Peter C. Carstensen & Robert H. Lande, *The Merger Incipiency Doctrine and the Importance of 'Redundant' Competitors*, 2018 WIS. L. REV. 783, 819-820 (2018) ("[T]here is a very large and respectable body of findings suggesting that, generally and overall, significant mergers lead to a . . . negative effect on efficiency."). Given these findings and the anticompetitive effects described above, it was reasonable, and consistent with precedent, for the Commission to insist that the merging parties satisfy the accepted standards for substantiating an efficiency claim. After all, the parties have access to the facts and

ought to be able to adduce compelling evidence if their claimed efficiencies are real.

The parties claim that the merger would accelerate the development and commercialization of a superior cancer test. According to the merging parties, the transaction would strengthen their R&D by combining their complementary expertise and enable them to secure FDA approval and payer acceptance more rapidly. The Commission found, however, that that claim was not properly supported. *See FTC v. H.J. Heinz Co.*, 246 F.3d 708, 721 (D.C. Cir. 2001) (Courts and the Commission must "undertake a rigorous analysis of the kinds of efficiencies being urged by the parties in order to ensure that those 'efficiencies' represent more than mere speculation and promises about post-merger behavior.").

The FTC noted that the merging parties' economic expert, Dr. Dennis Carlton, did not "attempt to quantify the value or scale of the claimed R&D efficiencies." FTC Opinion 77. Nor did the parties themselves. *Id.* Likewise, Illumina did not demonstrate how its acquisition of Grail would speed up FDA approval or how much time would be saved. The merging parties argued that third-party payers would accept a new test more quickly if it was offered by a larger firm, but the Commission stated that this was not the same as a "verifiable, analytical plan." *Id.* at 82. *See FTC v. Wilh. Wilhelmsen Holding ASA*, 341 F. Supp. 3d 27, 73 (D.D.C. 2018) ("The court cannot substitute Defendants' assessments

and projections for independent verification."); *FTC v. Penn State Hershey Med. Ctr.*, 838 F.3d 327, 348 (3d Cir. 2016) (efficiencies must be "verifiable, not speculative").

The FTC also found that the merging parties' claimed efficiencies were not merger-specific, because Grail need not be part of Illumina to secure FDA approval and payer acceptance. Grail obtained FDA permission to market its current test without Illumina's help. Moreover, instead of relying on Illumina, Grail can utilize the active industry of consultants and pharmaceutical firms who specialize in securing FDA approval and payer authorization. *See* FTC Opinion 81. *See also Heinz*, 246 F.3d at 721-22 (efficiencies must be merger specific); *FTC v. Hackensack Meridian Health, Inc.,* 30 F.4th 160, 176 (3d Cir. 2022) (same).

The merging parties also claimed that the acquisition would enable them to lower the prices of their tests by eliminating double marginalization. The effect of EDM on downstream prices, however, depends on numerous variables, including the percentage of rival sales diverted to the downstream merging firm, the net effect of that diversion on profits, the demand elasticity, the opportunity cost of reducing downstream prices, and the extent to which cost decreases lead to downstream price decreases. *See* Carl Shapiro, *Vertical Mergers and Input Foreclosure Lessons from the* AT&T/Time Warner *Case*, 59 REV. INDUS. ORG. 303, 325-27 (2021). Without knowing these variables, it is not possible to determine the

difference between the prices Grail would charge as an independent firm and the prices the integrated firm would charge. Dr. Carlton acknowledged that he did not have enough information to quantify the effect of EDM on prices. All he could offer were "illustrative" calculations based on assumptions. But an illustrative model, the Commission ruled, is "not adequate substantiation." FTC Opinion 84. *See United States v. H&R Block, Inc.*, 833 F. Supp. 2d 36, 89 (D.D.C. 2011) (substantiation must allow the court to verify the "likelihood and magnitude of each asserted efficiency").

Moreover, because the parties could not reliably predict the merged firm's downstream price, they could not show how much of the EDM savings would be passed on to consumers. *See* FTC Opinion 85. Yet pass-on is an essential element of an efficiency claim. Efficiencies justify mergers only to the extent that the benefits they create for the merging parties are passed on to consumers. The ultimate test of the parties' asserted justifications is whether they offset the merger's anticompetitive effects and prevent consumer harm. *See* U.S. Dep't of Just. & Fed. Trade Comm'n Horizontal Merger Guidelines § 10 (2010); *Penn State Hershey Med. Ctr.*, 838 F.3d at 348; *FTC v. Univ. Health, Inc.*, 938 F.2d 1206, 1223 (11th Cir. 1991).

Finally, it is necessary for the parties to demonstrate that the savings from EDM were merger-specific. An upstream firm and a downstream firm can

eliminate double marginalization without merging by contracting with each other in a way that leads to increased output. For example, the firms could agree on a two-part pricing structure, in which the upstream firm's price consists of a fixed charge and a variable charge. If the variable charge is at cost, there is no upstream markup to eliminate. *See* Simon Loertscher & Leslie M. Marx, *Double Markups, Information, and Vertical Mergers,* 67 ANTITRUST BULL. 434, 435 (2022) (If standalone firms "use two-part tariffs, there would be no double markup to be eliminated with vertical integration.").

In short, the criteria the FTC used in evaluating the merging parties' efficiency claims were proper. They are fundamental and widely accepted requirements of a cognizable efficiency justification.

CONCLUSION

The FTC concluded that the acquisition of Grail by Illumina violated Clayton Act § 7 because it posed a significant risk of distorting competition in the market for researching, developing, and commercializing a multi-cancer early detection test. The Commission correctly decided that the merger was not presumptively procompetitive and that its legality depended on a balanced assessment of its anticompetitive effects and its procompetitive effects. In concluding that the acquisition was reasonably likely to reduce competition and

harm consumers, the Commission employed valid analytical principles that are reflected in the cases, the Merger Guidelines, and the writings of leading scholars.

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CERTIFICATE OF COMPLIANCE

I hereby certify that the foregoing brief complies with Fed. R. App. P. 29(a)(5) and 32(a)(7)(B) because it contains 5,643 words as measured by Microsoft Word software. The brief also complies with the typeface and style requirements of Fed. R. App. P. 32(a)(5) and 32(a)(6) because it has been prepared in a proportionally spaced, Roman-style serif typeface of 14 points or more.

Dated: August 2, 2023

/s/ Seth D. Greenstein
Seth D. Greenstein

CERTIFICATE OF SERVICE

I hereby certify that on August 2, 2023, I electronically filed the foregoing document with the Clerk of the Court for the United States Court of Appeals for the Fifth Circuit by using the appellate CM/ECF system. Participants in this case are registered CM/ECF users, and service will be accomplished by the appellate CM/ECF system.

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