Refining Future Potential Competition

The Doctrine Allowing Courts to Protect Innovation

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Article

The American antitrust enforcers cannot directly protect competition to innovate. In the cases in which they have claimed that they have done so they have actually protected competition in Future Markets,[1] markets for products which do not exist yet.[2] I have been saying this for a long, long time.

I have, since 1998, analyzed the vast number of cases in which not only the American enforcers, but also their European counterparts, claimed they could directly protect competition to innovate. I have shown, first, that the competition authorities, in both the United States and Europe, actually protect competition in Future Markets.[3] Second, after reviewing all these cases I derived the Future

[1] A Future Market may include products which some firms are already selling. *See* Lawrence B. Landman, *The Future Markets Model: how the competition authorities really regulate innovation*, 42 E.C.L.R. 505, 506 (2022).
[2] The products firms are developing "exist" in the sense that they exist in their development stage. They either do not exist in their final form yet, or they cannot legally be sold yet. *See also* Lawrence B. Landman, *Competition to Innovate and Future Potential Competition,* 103 J. Pat. & Trademark Off. Soc'y 177 (2023) at 204.
[3] Lawrence B. Landman, *Innovation Markets in Europe,* 19 E.C.L.R. 21 (1998); Lawrence B. Landman, *Did Congress Actually Create Innovation Markets?,* 13 Berkeley Tech. L.J. 721 (1998); Lawrence B. Landman, *The Economics of Future Goods Markets,* 21 World Competition: Law and Economics Review 63 (1998); Lawrence B. Landman, *Competitiveness, Innovation Policy and the Innovation Market Myth: A Reply to Tom and Newberg on Innovation Markets as the "Centerpiece" of "New Thinking" on Innovation,* 13 J. Civ. Rts. & Econ. Dev. 223 (1998) (Original citation: 13 St. John's Journal of Legal Commentary 223) (1998); Lawrence B. Landman, *Innovation and The Structure of Competition,* 84 J. Pat. Off. Soc. Part I, September, 728-740, Part II, October, 789-

Markets Model, the analytical tool competition authorities actually use when they protect competition in Future Markets. And I have shown that in all these cases the relevant competition authority has indeed, implicitly, always applied the Future Markets Model. [4]

Now, finally, the American enforcers and courts explicitly acknowledge that they are doing what they have in fact always been doing: protecting competition in Future Markets. On July 18, 2023 the enforcers acknowledged this when they issued their draft revised Merger Guidelines.[5] And the Fifth Circuit confirmed this when, on December 15, 2023, it issued its opinion in *Illumina v. FTC.*[6] That Court held, for the first time, that Section 7 of the Clayton Act allows the enforcers to protect competition in a market for products which do not exist yet. And the very next business day after the Fifth Circuit issued its opinion the enforcers issued their final revised Merger Guidelines.[7] These final Guidelines were, regarding Future Markets, substantively the same as the draft revised Merger Guidelines—but with one crucial exception. Now the enforcers could cite legal authority which allowed them to protect competition in Future Markets.[8]

802, and Part III, November, 838-881 (1999); and Lawrence B. Landman, *From Innovation Markets to Innovation Spaces in Europe: a new phrase, is not innovation,* 42 E.C.L.R 30 (2021).

[4] Lawrence B. Landman, *The Future Markets Model: how the competition authorities really regulate innovation*, *supra* nt. 1. *See also* Lawrence B. Landman, *Nascent competition and transnational jurisdiction: the future markets model explains the authorities' actions,* 43 E.C.L.R. 294 (2022); Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 1; *and Private Plaintiffs Can Easily Protect Innovation,* 103 J. Pat. & Trademark Off. Soc'y 465 (2023).

[5] Department of Justice and Federal Trade Commission, draft Merger Guidelines (July 18, 2023).

[6] *Illumina, Inc. v. FTC*, No. 23-60167, (5th Cir. Dec. 15, 2023).

[7] Department of Justice and Federal Trade Commission, Merger Guidelines, (Dec. 18, 2023) (Merger Guidelines).

[8] Terminology in this field can be confusing. In *Illumina v. FTC, supra* nt. 6*,* alone the Fifth Circuit referred to "research and development markets" (slip op. at 13); "research, development and commercialization markets" (slip op. at 17); and "research-and-development markets" (slip op. at 13). These terms all mean the same thing, markets for products which do not exist yet. The European Commission originally used the term "Future Markets." See Lawrence B. Landman, *Innovation Markets in Europe, supra* nt. 3. I prefer this term because, as I explain in *Protecting Competition to Innovate is Protecting Competition in Future Markets: Ten Law Review Articles Leave No Doubt*, 55 CPI Antitrust Chronicle 2(2) (Feb. 2023) at 56, an almost infinite number of firms compete in research and development. Transactions among such firms raise antitrust concerns only if the transaction may harm competition in the future--only if the products the firms are trying to produce may compete against each other in the future. Such competition thus raises antitrust concerns only it the relevant firms may compete against each other in a Future Market. And indeed in the Merger Guidelines the enforcers themselves use the term "future markets." *See*

While the Fifth Circuit held that the FTC may use the Clayton Act to protect competition in markets for products which do not exist yet, it did not identify any legal doctrine which it said allowed the it or the enforcers do so. Most importantly, the Court did not cite actual potential competition, the doctrine many believed a court would cite if and when it were to hold that the Clayton Act allowed the enforcers to protect competition in a market for products which do not exist yet.[9]

But actual potential competition only allows a court to determine when it should block a transaction which involves products which already exist. It relates to possible geographical expansion. In all the actual potential competition cases the relevant products exist. The court determined if the relevant company, if it did not enter into the relevant transaction, would have itself entered the relevant geographical market—and sold in the new market products which it was already selling in other markets. This doctrine therefore does not say how or when courts should protect competition in markets for products which do not exist yet.

Further, the standards courts developed to determine if they should use the actual potential competition doctrine to block a transaction involving such possible geographical expansion—cases in which all the relevant products already exist—do not help courts determine when they should block a transaction which relates to products which do not exist. I therefore have, previously, proposed a new doctrine, which I call Future Potential Competition.[10] This doctrine

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infra nt. 39 and accompanying text. Further, in *Illumina v. FTC* the Fifth Circuit itself said that it considers the relevant firms to be competing against each other because they are trying to make products which, if they exist, will, in the future, compete against each other. *See infra* text accompanying nts. 44-46.

[9] *See, e.g*. C. Scott Hemphill and Tim Wu, *Nascent Competitors*, 168 U. Pa. L. Rev. 1879, 1984-1986 (2020). Hemphill and Wu refer to nascent competition. Nascent competition, however, is just competition in a Future Market between a big firm and a small firm. *See infra* nt. 111 and accompanying text.

[10] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 1.

allows the enforcers and courts to apply standards which will help them determine when they should block a transaction and thus protect competition in markets for products which do not exist.

In this article I, first, show that in their final revised Merger Guidelines the enforcers, reversing what they have been saying for over 30 years, now acknowledge that they protect competition in Future Markets. Further, I show that in *Illumina v. Grail* the Fifth Circuit did just this, protect competition in a Future Market.

Second, I show that in their final Merger Guidelines the enforcers implicitly acknowledge that they apply the Future Markets Model. And I show that in *Illumina v. Grail* the Fifth Circuit also implicitly applied the Future Markets Model.[11]

Third, in this article I also further develop the doctrine of Future Potential Competition. I show that although the enforcers say in their final Merger Guidelines that they will use standard antitrust analysis when protecting competition in Future Markets, in reality they can only do so to a limited extent. Since the relevant products do not exist, the enforcers cannot calculate prices, changes in prices, or market shares. They best they can do is apply a structural presumption, and assume that to be competitive a Future Market must have a certain minimum number of competitors.

Fourth and finally, I show that in *Illumina v. Grail* the Fifth Circuit not only did not apply the actual potential competition doctrine, but it laid down the core of a new standard, one which courts must apply when analyzing markets for products which do not exist yet. And as I show, Future

[11] Indeed, I have shown that in all cases involving Future Markets all competition authorities apply the Future Markets Model. See *supra* n. 4.

Potential Competition further develops, and thus helps court apply, this new standard. In essence, Future Potential Competition asks courts to balance all appropriate variables; courts should consider, for example, not just whether a product still in development is likely to exist in the future, but also how many firms are trying to develop comparable products.

I. FROM INNOVATION MARKETS TO FUTURE MARKETS

A. EARLY EFFORTS TO PROTECT COMPETITION TO INNOVATE

The American enforcers first claimed they could directly protect competition to innovate in 1993, in *General Motors/ZF Friedrichshafen* (GM/ZF).[12] In this case GM sought to buy ZF's automatic transmission division. The two firms had competed for many years to make better automatic transmissions. But the firms competed in Europe. In the United States the firms competed directly against each other in only two narrow markets, those for automatic transmissions for refuse trucks and busses. Rather than allege that the firms competed in just these two narrow segments DOJ alleged that the firms competed in a broad market in which innovation itself was the product. With this case DOJ thus gave us the concept of an Innovation Market.

In 1995 the enforcers confirmed that they would continue to at least claim that they could find Innovation Markets. In that year, first, two high-ranking DOJ officials, Richard J. Gilbert and Steven C. Sunshine, published their seminal article *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets*, 63 Antitrust L.J. 569 (1995). Second, also in

[12] United States v. General Motors Corp., No. 93-530 (D. Del. filed Nov. 16, 1993). I explain this case in greater detail in Lawrence B. Landman, *Did Congress Actually Create Innovation Markets?, supra* nt. 3, at 759-767.

that year DOJ and the FTC issued their Antitrust Guidelines for the Licensing of Intellectual Property (1995 I.P. Guidelines). In Section 3.2.3 of these Guidelines the enforcers said they would, in the right case, protect competition in an Innovation Market. When the enforcers updated their IP Guidelines in 2017 they substituted the term "R&D Markets" for "Innovation Markets," but did not change the substance of their claim that they could protect competition in what they now call R&D Markets.[13] In other words, the enforcers continued to claim they could directly protect competition to innovate.

Yet while the enforcers claimed they could directly protect competition to innovate, they actually protected competition in Future Markets, markets for products at least some of which did not exist yet. I showed this first in *Did Congress Actually Create Innovation Markets?*[14] In that article I analyzed all the cases in which the enforcers had, at that time, claimed they could directly protect competition to innovate, in other words in which they claimed they had found an Innovation Market. I showed that in almost all these cases the enforcers had actually, first, determined that both of the merging firms were trying to make the same future product. The enforcers then determined if the merger would cause competitive problems in this Future Market. If not enough other firms were also trying to make these possible future products then the enforcer would conclude that the transaction harmed competition in the Future Market. In response the parties to the relevant transactions always acquiesced to the enforcers' request, and licensed or sold the intellectual property relating to one of the relevant product development efforts.

[13] DOJ and FTC, *Antitrust Guidelines for the Licensing of Intellectual Property*, § 3.2.3 (2017).
[14] Lawrence B. Landman, *Did Congress Actually Create Innovation Markets, supra* nt. 3.

The exception to this was *Ceba-Geigy/Sandoz*,[15] the merger which created Novartis. The merging companies controlled broad patents which, together, could block access to the then burgeoning field of gene therapy. To approve the transaction, therefore, the FTC required Novartis to offer non-exclusive licenses to this crucial intellectual property.[16]

In this case, therefore, the FTC's concern was not that the relevant firms were trying to make specific products which may compete against each other in the future. Its concern, rather, was that the merged firm, through its control of a broad patent portfolio, could block access to a market. This concern, that firms would combine broad patents so as to block access to a market, is not new. The enforcers have always acted to stop firms from doing this. In this case the FTC did nothing new.[17] It did not find an Innovation Market. It did not directly protect competition to innovate.

During this period the European Commission did not even claim it could protect competition in an Innovation Market. Nor did it claim that it could it some other way directly protect competition to innovate. Instead, as I showed in *Innovation Markets in Europe*,[18] the European Commission acknowledged that it protected competition in Future Markets.

B. ENFORCEMENT DIRECTED AT PROTECTING INNOVATION WAS IN FACT ADDRESSING FUTURE MARKETS

Yet while the European Commission acknowledged that it protected competition in Future Markets the American enforcers continued to claim they could directly protect competition to

[15] Ciba Geigy Ltd., FTC File No. 961-0055 (Dec. 5, 1996).
[16] I explain this case in greater detail in Lawrence B. Landman, *Did Congress Actually Create Innovation Markets?, supra* nt. 3, at 787-793.
[17] *See e.g.* DOJ/FTC, Intellectual Property Licensing Guidelines, *supra* nt. 13, at § 5.4.
[18] Lawrence B. Landman, *Innovation Markets in Europe*, *supra* nt. 3.

innovate. In 2010 DOJ and the FTC issued their Horizontal Merger Guidelines. Section 6.4 offers a complex, indeed unclear, explanation of how the enforcers will evaluate this competition to innovate.[19] Unlike the 1995 and 2017 Intellectual Property Licensing Guidelines Section 6.4 of the 2010 Horizontal Merger Guidelines does not use either the term "Innovation Market" or "R&D Market."[20] Yet the section claims that the enforcers can directly protect firms' competition to innovate. It claims that the enforcers can identify a firm's capabilities and incentives to innovate.[21] It also says that, in many cases, firms could combine assets in a way which will create innovation efficiencies.[22]

And in 2017, the same year the American enforcers issued their updated Intellectual Property Guidelines, the European Commission, in *Dow/DuPont,* changed its position and, no longer acknowledging that it protects competition in Future Markets, now claims that it protects competition in yet a new kind of market, one it invented. In *Dow/DuPont* the European Commission claimed it can protect competition in what it calls an Innovation Space. Yet, as I show in *From Innovation Markets to Innovation Spaces in Europe: a new phrase is not innovation,*[23] an Innovation Space is just a Future Market. While the European Commission used convoluted language to try to create the impression that it created something new, in reality it did no such thing.

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[19] DOJ and FTC, *Horizontal Merger Guidelines* § 6.4 (August 2010) (2010 Horizontal Guidelines).
[20] *See supra* nt. 13 and accompanying text.
[21] Regarding the enforcers' ability to analyze a firm's capabilities, *see infra* nts. 33-34 and accompanying text.
[22] Regarding the enforcers ability to analyze innovation efficiencies, *see infra* Part II.E.1.
[23] Lawrence B. Landman, *From Innovation Markets to Innovation Spaces in Europe: a new phrase is not innovation*, *supra* nt. 3.

After showing, yet again, that the authorities protect competition in Future Markets I then derived, from all the cases in which the competition authorities did this, the methodology the authorities actually use to protect competition in Future Markets. I call this the Future Markets Model. I explain the Model, in detail, in *The Future Markets Model: how antitrust authorities really regulate innovation.*[24] To summarize, the Future Markets Model lays out the analytical steps any antitrust authority must take to analyze competition in a Future Market. The Future Markets Model contains four prongs. Each prong asks an authority to answer a specific question:

A. Does a current product exist?
B. How many firms are trying to develop a future product?
C. For each possible future product, is it sufficiently developed that the authority will consider it a possible future product?
D. How broad will the authority define the Future Market? Will the authority consider future products which are similar, but not identical, as future competing products?

The Model also recognizes that at times a competition authority will act, as the FTC did in *Ciba-Giegy/Sandoz*,[25] to stop merging firms from blocking access to a market.[26]

Most importantly, the Future Markets Model recognizes that when an authority protects competition in a Future Market, and in particular when it is answering the four questions the Model asks, it could answer these questions aggressively, not aggressively, or somewhere in between. In many cases an authority will not be able to easily answer some or all of the questions the Model asks. There will be issues on the edge. To help it answer these difficult questions an authority

[24] Lawrence B. Landman, *The Future Markets Model: how antitrust authorities really regulate innovation*, *supra* nt. 4, at 506.
[25] *See supra* nt. 15 and accompanying text.
[26] The United Kingdom's Competition and Markets Authority did this when it, initially, blocked Microsoft's Acquisition of Activision. *See* Lawrence B. Landman*, Rule Britannia: Thanks to Brexit It Does… At Least in Antitrust,* CPI Columns Europe (May 2, 2023) https://www.pymnts.com/cpi_posts/rule-britannia-thanks-to-brexit-it-does-at-least-in-antitrust/

must develop a policy. It must decide how aggressively it will answer these questions, and thus how quick it will be to find competitive problems in a Future Market.

To pick one example, which I explain in greater detail in *The Future Markets Model*,[27] both the European Commission and the FTC, when reviewing Glaxo's purchase of Wellcome, had to decide if an injectable form of an antimigraine drug competed in the same market as an oral form of the drug. Since the two authorities applied different policies, they answered this question differently. The FTC, acting more aggressively than the European Commission, found that the oral and injectable forms of the drug competed in separate markets. It found that only two firms competed in the Future Market to make the injective form of the drug, and it thus found that the transaction harmed competition in this Future Market.[28]

C. Revised Merger Guidelines Acknowledge that Enforcers Protect Competition in Future Markets

When the American enforcers issued first their draft, and then, on Dec. 18, 2023, their final revised Merger Guidelines they acknowledged that they protect competition in Future Markets. They said this, almost explicitly, in Section 4.3.D.7, entitled "Market Definition When There is Harm to Innovation." This section says:

> When considering harm to competition in innovation, market definition may follow the same approaches that are used to analyze other dimensions of competition. In the case where a merger may substantially lessen competition by decreasing incentives for innovation, *the Agencies may define relevant antitrust markets around the products that would result from that innovation, even if they do not yet exist*.[91] In some cases, the Agencies

[27] *Lawrence B. Landman, The Future Markets Model: how antitrust authorities really regulate innovation*, *supra* nt. 2, at 506.
[28] See Glaxo plc., FTC File No. 951-0054, 60 Fed. Reg. 16,139 (Mar. 29, 1995) and Glaxo/Wellcome Case No. IV/M.555 (Feb. 28, 1995).

> may analyze different relevant markets when considering innovation than when considering other dimensions of competition. [Emphasis added]

Footnote 91 quotes the key passage in *Illumina v. FTC* in which the Fifth Circuit, as I discuss extensively *infra,*[29] did indeed find that the Clayton Act allows the FTC to protect competition in a Future Market. Footnote 91 says:

> See *Illumina*, slip op. at 12 (affirming a relevant market defined around "what …developers reasonably sought to achieve, not what they currently had to offer").

In addition to this, Section 4.2.E of the final revised Merger Guidelines simply lays out, in paragraph form, the four questions the Future Markets Model asks. In this section the enforcers thus implicitly acknowledge that they apply the Future Markets Model. The first paragraph of this section says:

> Firms can compete for customers by offering varied and innovative products and features, which could range from minor improvements to the introduction of a new product category. Features can include new or different product attributes, services offered along with a product, or higher-quality services standing alone. Customers value the variety of products or services that competition generates, including having a variety of locations at which they can shop.

This paragraph requires the FTC or DOJ to answer questions A and C of the Future Markets Model. The enforcer must decide if the relevant product[30] is either "new" or an "improvement," and thus different from previously existing products. And implicitly, the enforcer must decide if the relevant product is sufficiently developed that it will consider it a "product."[31]

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[29] *See infra* text accompanying nts. 31-50.
[30] Such a product could be a service. *See* Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4 at 184 nt. 35.
[31] Regarding distribution *see infra* nt. 36.

The second paragraph of this section says:

> Offering the best mix of products and features is an important dimension of competition that may be harmed as a result of the elimination of competition between the merging parties.

This paragraph requires the FTC or DOJ to answer questions B and D of the Future Markets Model. The enforcer must decide if the products the relevant firms are making, or trying to make, are sufficiently similar that they compete against each other. And it requires the enforcer to decide if such a small number of products compete in the market that the transaction, by eliminating a competitor, will harm competition in the Future Market.

The third paragraph of the section adds detail, but little substance, to the second paragraph. It says:

> When a firm introduces a new product or improves a product's features, some of the sales it gains may be at the expense of its rivals, including rivals that are competing to develop similar products and features. As a result, competition between firms may lead them to make greater efforts to offer a variety of products and features than would be the case if the firms were jointly owned, for example, if they merged. The merged firm may have a reduced incentive to continue or initiate development of new products that would have competed with the other merging party, but post-merger would "cannibalize" what would be its own sales. A service provider may have a reduced incentive to continue valuable upgrades offered by the acquired firm. The merged firm may have a reduced incentive to engage in disruptive innovation that would threaten the business of one of the merging firms. Or it may have the incentive to change its product mix, such as by ceasing to offer one of the merging firms' products, leaving worse off the customers who previously chose the product that was eliminated. For example, competition may be harmed when customers with a preference for a low-price option lose access to it, even if remaining products have higher quality.

This third paragraph thus explains in greater detail the harm a merger may cause if it substantially lessens competition in a Future Market. Firms that would otherwise have competed against each

other would, due to the merger, not do so. The merged firm would have less of an incentive to develop and sell new, better, innovative products. It would have either a monopoly, or at least a larger share of the Future Market. This is true, in fact it is obviously true, and I discuss in greater detail *infra.*[32]

The fourth paragraph says:

> The incentives to compete aggressively on innovation and product variety depend on the capabilities of the firms and on customer reactions to the new offerings. Development of new features depends on having the appropriate expertise and resources. Where firms are two of a small number of companies with specialized employees, development facilities, intellectual property, or research projects in a particular area, competition between them will have a greater impact on their incentives to innovate.

The first sentence retains a fragment of the more expansive claims Section 6.4 of the 2010 Horizontal Merger Guidelines made regarding the enforcers' abilities to analyze a firm's capabilities. This paragraph simply states the obvious fact that for a firm to compete in a Future Market it must at least plausibly be capable of making the relevant future product. And for a firm to be plausibly capable of making a future product it must be trying to make that product.[33]

As I explain in greater detail in both *The Future Markets Model*[34] and *From Innovation Markets to Innovation Spaces in Europe*,[35] competition authorities have great difficulty analyzing firms'

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[32] *See e.g. infra* text accompanying nts. 101 to 104.

[33] As I have also explained, to compete in a Future Market a firm must not only be capable of making a future product, it must also by trying to make the future product. *See infra* text accompanying Part II.A.1. *See also* Lawrence B. Landman, *The Future Markets Model Explains Meta/Within: A Reply to Herb Hovenkamp,* ProMarket (May 29, 2023) https://www.promarket.org/2023/05/29/the-future-markets-model-explains-meta-within-a-reply-to-herb-hovenkamp/

[34] Lawrence B. Landman, *The Future Markets Model: how the competition authorities really regulate innovation*, *supra* nt. 1, at 507 and 513.

[35] Lawrence B. Landman, *From Innovation Markets to Innovation Spaces in Europe: A New Phrase is Not Innovation*, *supra* nt. 3, at 37-38.

capabilities. Indeed, firms themselves do not know their capabilities, and at times fail to make the products they try to make. Quite simply, if a firm has sufficiently developed a product that an antitrust authority will consider it a "product," then the authority will conclude that that firm is capable. Saying the same thing the other way around, no authority would allow an otherwise anticompetitive transaction to proceed because it concludes that one of the relevant firms is incapable. For example, an enforcer would not allow the only two firms trying to make a future product to merge simply because it believed that one of the two firms was incapable of making the product it was trying to make.

And, as it concludes, this paragraph makes the obvious point that for a Future Market to be competitive a sufficient number of firms must compete in that market.[36] The paragraph does not say what that sufficient number is. As I discuss in greater detail *infra,* the Merger Guidelines implicitly say that to be competitive a Future Market should have at least five, and possibly seven, competitors.[37]

The Merger Guidelines also, to an extent, address the issue of what legal doctrine allows the enforcers to use the Clayton Act to protect competition in a Future Market. Section 2.4.A explains how the enforcers will apply the actual potential competition doctrine. While this section focuses on markets for existing products, footnote 23[38] of this section explains how the enforcers will

[36] The fifth and final paragraph of the section says: "Innovation may be directed at outcomes beyond product features; for example, innovation may be directed at reducing costs or adopting new technology for the distribution of products." The situations this paragraph describes do not involve new products and are therefore, regarding Future Markets, irrelevant.
[37] *See e.g. infra* text accompanying nts. 101 to 104.
[38] Footnote 23 says: "Harm from the elimination of a potential entrant can occur in markets that do not yet consist of commercial products, even if the market concentration of the *future market* cannot be measured using traditional means. Where there are few equivalent potential entrants, including one or both of the merging firms, that indicates that *the future market*, once commercialized, will be concentrated. The Agencies will consider other potential

address markets for products which do not exist yet. This footnote 23 thus implies that the enforcers believe that the actual potential competition doctrine allows them to protect competition in Future Markets.

This footnote 23 is noteworthy for two reasons. First, in it the enforcers are simply wrong. As I will show, the actual potential competition doctrine does not allow the enforcers to protect competition in Future Markets. Second, in this footnote the enforcers actually use the term "future market."[39] And they do so twice. This shows, again, that the enforcers actually see the relevant competition as competition in the Future Market.

D. *Illumina v. FTC:* The Clayton Act Protects Competition in Future Markets

1. *Court clearly protected competition in Future Markets*

As I said *supra,*[40] the Merger Guidelines, in their footnote 91, say that in *Illumina v. Grail* the Fifth Circuit held that the Clayton Act allows the enforcers to protect competition in a market for products which do not exist yet. And, indeed, the footnote is correct. This is exactly what the Court held.

In this case the Court reviewed FTC's order telling Illumina it may not buy Grail. Grail and five to seven[41] other companies are all trying to develop what will be, if and when they exist, miraculous cancer tests. The tests will be able to detect--very early--many different types of

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entrants' capabilities and incentives in comparison to the merging potential entrant to assess equivalence. [Emphasis supplied.]

[39] *Id.*

[40] *See supra* text accompanying nt. 29.

[41] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition*, *supra* nt. 4, at 202 nt. 117.

cancer. And, since, in many cases, early detection equals cure, these miraculous tests will, over time, save millions of lives.

All these tests use Illumina's DNA sequencing instruments. Thus, the FTC feared, if Illumina bought Grail then it would not allow Grail's competitors to use its instruments, or it would allow them to do so but subject to anticompetitive terms. This would give Grail an unfair advantage and thus allow Grail to dominate the Future Market.

But the products which would compete in this coming market do not exist yet. Grail has just begun to sell its test,[42] and all its competitors are still developing their tests.[43] Yet the Fifth Circuit allowed the FTC to use Section 7 of the Clayton Act to block this transaction. The Fifth Circuit thus clearly held that Section 7 gave the FTC the authority to protect competition in a market for products which do not exist yet.

2. *Insufficient Explanation of Policy: Why Should Sec. 7 Protect Future Markets?*

But the Fifth Circuit failed to say *why* it reached this conclusion. It failed to explain the policy it was developing and implementing. The Court simply accepted the FTC's assertion that the Clayton Act allows it to protect competition in a market for products which do not exist yet. The Court said:

> Critically, because the Commission viewed the relevant product market as one for the research, development, and commercialization of MCED tests — not the *existing* commercial market for MCED tests — it based its market

[42] "Grail had published promising results from a clinical study concerning the initial version of Galleri and was undergoing additional clinical studies to validate its updated version." *Illumina v. FTC, supra* note 6, at slip op. 2. "Grail first offered Galleri [Grail's product] for commercial sale in April 2021 as a laboratory-developed test.". *Id.* at 3.

[43] *See infra* nt. 61.

> definition on what MCED-test developers reasonably sought to achieve, not what they currently had to offer. Each of Illumina's proposed bases for why the Commission's market definition fails springs from the presumption that the Commission should have defined the market based on the products that currently exist, not those that are anticipated or expected. We disagree.[7] [emphasis in original][44]

And the Court's footnote 7 says:

> In any event, the leading antitrust commentators have noted that "the difference between actual and potential competition" for purposes of antitrust enforcement is often "exaggerate[d]": "[P]otential competition is competition 'for' the market, while 'actual' competition is said to be competition 'in' the market. But insofar as antitrust policy is concerned, both kinds of competition can be equally 'actual.'" 4 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 907 (4th ed. 2016).

This footnote 7 seems to offer the Court's explanation of why the Clayton Act allows the FTC to protect competition in a Future Market, but actually offers a very weak, if any, explanation. This footnote merely says that the FTC can use the Clayton Act to protect competition in a Future Market because the relevant firms, even if they have not yet produced the final version of their products, are nevertheless currently competing against each other.

And, again, the Court is correct. As I have explained elsewhere,[45] an almost infinite number of firms are constantly innovating, in a myriad of different ways. These firms are thus, in a sense, competing against each other in innovation. But, from an antitrust perspective, firms are only competing against each other in innovation if they are, as the Fifth Circuit implicitly said, trying

[44] *Illumina v. FTC*, supra nt. 6, at slip op. 12.

[45] Lawrence B. Landman, *Protecting Competition to Innovate is Protecting Competition in Future Markets: Ten law review articles leave no doubt*, supra nt. 8, at 56.

to make products which may compete against each other in the future. In other words, if they are competing in a Future Market.[46]

The Fifth Circuit thus implicitly confirmed the FTC's holding on this issue. The FTC, in its order blocking the transaction, had decided that Section 7 gave it the authority to protect competition in a Future Market. The FTC based this conclusion on its interpretation of the market definition criteria of *United States v. Brown Shoe*.[47] The FTC concluded that the market for these types of cancer tests, MCED tests, if they existed, would form a separate market. Regarding this issue, however, the FTC had surprisingly little to say. It said:

> Respondents argue that Complaint Counsel's relevant market impermissibly includes products still in development whose precise attributes are unknown, and that may not be viewed as substitutes for Galleri [Grail's product] when they launch. However, given that the purpose of market definition is to elucidate the potential for competitive harm, the market defined in this case must be broad enough to encompass competition to commercialize MCED tests.[48] [Citation Omitted]

Thus the FTC simply said that Section 7 of the Clayton Act must allow it to protect competition in markets for products which do not exist yet. But it, again, does not say *why* Section 7 must allow it to protect competition in such markets. The FTC can not have the authority it wants simply because it says it wants this authority.

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[46] The Merger Guidelines implicitly recognize this. The Guidelines say in Sec. 2.2 "Competition often involves firms trying to win business by offering lower prices, new or better products and services, more attractive features, higher wages, improved benefits, or better terms relating to various additional dimensions of competition. This can include competition to research and develop products or services, and the elimination of such competition may result in harm even if such products or services are not yet commercially available." But this passage, first, refers to specific products or services. Second, this passage assumes that these products or services, if they exist, will compete against each other in the future. And indeed in other sections the Guidelines say explicitly that the enforcers will protect competition in Future Markets. *See supra* text accompanying nts. 29 to 55.
[47] *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962).
[48] *In re Illumina,* Docket No. 9401, Public Version (March 31, 2023), at 25-26.

In fact the enforcers must be able to stop firms from exploiting the loophole of time. If the enforcers did not have the authority the FTC seeks, then firms could enter into an otherwise anticompetitive transaction before the relevant products exist, and then dominate the relevant market when, in the future, the products exist.

The FTC, or the Fifth Circuit, should have said this explicitly.[49] Either authority should have done so, first, because as I will discuss *infra*, understanding *why* the enforcers should protect competition in Future Markets allows courts to determine *when* they should allow the enforcers to do so.[50] Second, if the FTC had addressed the issue directly, then it could have explained why, it believes, those who disagree with it are wrong. For example, since Section 7 only applies to

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[49] On pages 60 and 61 of its order the FTC repeats its argument that the Clayton Act must allow it to protect competition in a Future Market. On these pages it cites cases which, as the FTC says, do recognize the importance of innovation. Indeed, as I say in Lawrence B. Landman, *The Economics of Future Goods Markets, supra* nt. 3, courts enforce all the antitrust laws because they assume that competitive markets drive innovation. Thus, in this sense, these cases do, as the FTC says, protect innovation competition. *In re Illumina, supra* nt. 48, at 60-61.

But the FTC says that these cases show that "the antitrust laws protect innovation competition even when products have not yet launched." *Id.* at 60. Thus the FTC at least implies that in these cases the relevant authority protected competition in a Future Market. This is not true. In *United States v. Anthem, Inc.,* 855 F.3d 345 (D.C. Cir. 2017) the court analyze the health insurance market, and said the proposed merger, by lessening competition, may lower the quality of service. Health insurance is of course an existing product. In *FTC v. Actavis, Inc.,* 570 U.S. 136 (2013) the court analyzed the antitrust implications of a settlement of a patent infringement lawsuit. In *Otto Bock HealthCare N. Am., Inc.,* 168 F.T.C. 324 (2019) the FTC reviewed the possible acquisition, by the firm with the largest market share, of the firm with the third largest market share, of microprocessor-equipped prosthetic knees, also an existing product. The companies also made other prosthetics, but, again, these products already existed. And in *In re Union Carbide Corp.*, 59 F.T.C. 614, 1961 WL 65409, (1961) the FTC would not allow the largest producer of polyethylene resins used for making polyethylene film to acquire the largest manufacturer of polyethylene film. Again, these products existed. In the passages the FTC quotes and cites, and particularly the passage it quotes in its *Union Carbide* order, the relevant authority did point out the benefits of competition. And in all these cases, while the relevant authority is correct, in none of them is it saying anything new; all competition authorities strive to keep all markets competitive among other reasons because competitive markets spur innovation. *See* Lawrence B. Landman, *The Economics of Future Goods Markets, supra* nt. 3. But recognizing that competition, in general, drives companies to make new products is not the same as acting to protect competition in a specific market which contains a specific product which a specific company is still developing. It is not protecting competition in a Future Market.

But even if the FTC offered an overly expansive interpretation of these cases, what the FTC was claiming when it cited these cases is clear: the FTC was claiming, albeit implicitly, that the Clayton Act must allow it to protect competition in Future Markets and thus allow it to stop firms from exploiting the loophole of time. And this claim is certainly reasonable.

[50] *See infra* Part II.

products which compete in a "line of commerce"[51] not only have commentators argued that products which do not exist yet do not compete in a "line of commerce," but so to, in their brief before the FTC, did Illumina and Grail themselves.[52] Citing the leading case of *SCM v. Xerox*, 645 F.2d 1195 (2d Cir. 1981), cert. denied, 455 U.S. 1016 (1982), these commentators, as well as Illumina and Grail, make what seems on the surface to be a valid argument. Instead of simply ignoring these commentators, and Illumina and Grail, the FTC should have explained, explicitly, why it believes that when it protects competition in a Future Market it is protecting competition in a "line of commerce." Indeed, I have already done so.[53]

3. How Aggressively May the Enforcers Protect Competition in a Future Market?

Thus while the Fifth Circuit essentially confirmed the FTC's order, the Court issued a narrow opinion. This opinion explains why the Court agreed with the FTC in this particular case. But, regarding Future Markets generally, the Court's opinion leaves many questions unanswered.

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[51] Section 7 of the Clayton Act, 15 U.S.C. § 18 (1970), says in relevant part: "No person engaged in commerce or in any activity affecting commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another person engaged also in commerce or in any activity affecting commerce, where in any *line of commerce* or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

No person shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of one or more persons engaged in commerce or in any activity affecting commerce, where in any *line of commerce* or in any activity affecting commerce in any section of the country, the effect of such acquisition, of such stocks or assets, or of the use of such stock by the voting or granting of proxies or otherwise, may be substantially to lessen competition, or to tend to create a monopoly. [Emphasis supplied]

[52] Respondents' Post-Trial Brief, Illumina et. al. Docket No. 9401 (April 29, 2022) at 22–26.

[53] *See* Lawrence B. Landman, *Innovation and The Structure of Competition: Future Markets in European and American Law Part III, supra* nt. 3, at 847-861. As I explain on these pages while, as some commentators have said, a product competing in an Innovation Market (assuming such a thing exists) does not compete in a "line of commerce," a product competing in a Future Market does. Thus, as I explain in detail on these pages, Section 7 does allow the enforcers to protect competition in Future Markets.

The first question the Court did not adequately explain is how aggressive the enforcers may be when acting to protect competition in a Future Market. Since the products do not exist yet, the enforcers, when deciding if they should act, must make two critical determinations. First, for each possible future product, they must decide if it sufficiently developed that the authority will consider it a possible future product (Prong C of the Future Markets Model). Second, they must decide how broad the authority will define the Future Market (Prong D of the Future Markets Model). The Fifth Circuit simply said that an enforcer's assertion that the products will compete against each other in the Future Market cannot be "too speculative." The Court, referring to a Future Market as a market for "research and development"[54] merely said:

> To be sure, simply labeling a market as one for "research and development" does not relieve Complaint Counsel of its burden to delineate the bounds of a relevant product market. In some circumstances, there may be no firms which can fairly be said to be "competing" in a space. And the mere fact that some company, someday may innovate a competing product in a given market would be too speculative to support a Section 7 claim, lest every acquisition be presumptively unlawful.[55]

It thus offered only a simple, indeed incomplete, explanation of when the enforcers may use the Clayton Act to protect competition in a Future Market. While this standard offers some guidance, it is still vague.

The best way to understand how the Court applied this "too speculative" standard in *Ilumina* is to compare the Court's decision with that of the Administrative Law Judge (ALJ), D. Michael Chappell. The ALJ first reviewed, and approved, the transaction. Without using those exact words the ALJ essentially concluded that the FTC's conclusions were indeed "too speculative."[56] But

[54] Terminology in this field can be rather confusing. *See supra* nt. 8.
[55] *Illumina v. FTC*, *supra* note 6, at slip op. 13-14.
[56] I applied the Future Markets Model to Illumina's possible purchase of Grail in Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4, at 201-203, and 212-213.

the FTC then blocked the transaction and the Fifth Circuit essentially[57] confirmed the FTC's order. The Fifth Circuit thus disagreed with the ALJ and found that the FTC's conclusions, first, that the products would exist in the future (Prong C of the Future Markets Model) and that these products' features were sufficiently similar that the products would compete against each other (Prong D of the Future Markets Model) were both not "too speculative." This shows that, at least as the Fifth Circuit defines the term, an enforcer can speculate to some extent yet not be applying analysis which is "too speculative."

Regarding the first key question, the ALJ decided that each possible future product was not sufficiently developed that he would consider them possible future products. (He answered "No" to Prong C.). Being less aggressive than the FTC or Fifth Circuit were later to be, the ALJ said:

> It is unclear when any other MCED [multi-cancer early detection] tests might launch, how many cancers the tests will screen for, what features the MCED tests may have, or what the prices of the MCED tests in development might be.[58]

The ALJ also said that he could not know what features these products would have (He answered "No" to Prong D). He could not know what types of cancers these different tests would, in the future, be able to detect. And since he could not now know if these products would, in the future, have similar features, he would not, now, consider them competing products.[59]

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[57] The Fifth Circuit affirmed the FTC's conclusion that it may use Section 7 of the Clayton Act to protect competition in a market for products which do not exist yet. The Court however remanded the FTC's order, instructing the FTC to analyze, in the proper manner, Illumina's offer to limit its actions in ways Illumina believed adequately responded to the FTC's competition concerns. This issue, how the FTC should analyze Illumina's offer, is beyond the scope of this article.

[58] Initial Decision (Redacted Public Version), *In re* Illumina Inc., Docket No. 9401 (F.T.C. Sept. 9, 2022), at 176.

[59] *See supra* note 58 and accompanying text.

The Court, however, disagreed with the ALJ's conclusions. It confirmed the FTC's finding that Grail and its competitors had developed their tests to such a sufficient extent that it would consider them possible future products (the Court answered "Yes" to Prong C). The Court said that Grail was just beginning to sell its test[60] and at least two other firms had developed tests to such an extent that it would assume these products would exist.[61]

The Court also confirmed the FTC's finding that the products will probably compete against each other in the future (The Court answered "Yes" to Prong D). The Court explained why it believes that the cancer tests, if they exist, will, in the future, compete against each other. The Court said that even if these tests would not be identical, they would be sufficiently similar that the Court would consider them competing products.[62] This shows that, as the Fifth Circuit defines the term, not "too speculative" can still be somewhat speculative.

Finally, the Court, because it issued a narrow opinion, did not say what legal doctrine allowed it to protect competition in the Future Market. Most conspicuously, the Court did not cite the potential competition doctrine, and in particular the actual potential competition doctrine. The

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[60] *See supra* nt. 42.

[61] "Thrive Earlier Detection Corporation had announced that the initial version of its own MCED test— — CancerSEEK— — had also been clinically validated. And other MCED tests— — including Singlera Genomics, Inc.'s PanSeer— — were in development... While Galleri is the only NGS-based [next-generation sequencing] MCED test currently available on the market, others expect to go to market soon and to directly compete with Galleri." *Illumina v. FTC, supra* note 6 at slip op. 2-3. The Court also explained on page 14 of its Opinion why it felt the FTC's claim was not speculative. The Court said: "While Grail may have the most advanced MCED test, competing tests — particularly CancerSEEK— — have been clinically validated, and other developers have concrete plans to begin the trials necessary for FDA approval. Indeed, Grail's own internal documents show that the company viewed itself as being in active competition with these other MCED-test developers." *Id.* at 14.

[62] "And even if Illumina was correct in its claim that the other MCED tests in development would only be able to detect a subset of the fifty cancer types that Galleri can detect, two products need not be identical to be in the same market; rather, the question is merely whether they are "similar in character or use…And the Commission correctly noted that these other tests could still take sales from Galleri (i.e., be substitutes, albeit not perfect substitutes) if they were priced lower." [Citations Omitted] *Illumina v. FTC, supra* note 6, at slip op. 12-13.

Court therefore implicitly held that the potential competition doctrine, and in particular the actual potential competition doctrine, did not apply to the case before it. The Court thus implicitly held that to help them analyze markets for products which do not exist yet courts need a new legal doctrine. As I will explain in the next section, this is exactly what courts do in fact need. Courts need a new legal doctrine, one I call Future Potential Competition.[63]

II. FUTURE POTENTIAL COMPETITION

A. ACTUAL POTENTIAL COMPETITION DOES NOT APPLY TO FUTURE MARKETS

While the Fifth Circuit held that the enforcers may protect competition in a Future Market, it failed to address the next logical legal question: "What legal doctrine gives the enforcers the authority to protect competition in Future Markets?" The Court simply did not answer this question. Most importantly, it did not say that the potential competition doctrine, and in particular the actual potential competition doctrine, gave the Court the authority to protect competition in Future Markets. The Court also did not cite any of the cases which develop the potential competition doctrine.[64]

[63] The Fifth Circuit's opinion in *Illumina v. FTC* is fully consistent with Future Potential Competition. *See infra* Part II.F.

[64] The court tangentially mentions *Mercantile Texas Corp. v. Board of Governors of Federal Reserve System*, 638 F.2d 1255 (5th Cir. 1981.), but it does so only to say that this case does not apply to markets involving products which do not exist yet. *See supra* nt. **Error! Bookmark not defined.**. The Court also cites *US v. Marine Bancorporation, Inc.*, 418 U.S. 602 (1974), but it does only to say that when analyzing an antitrust case a court must identify relevant product and geographic markets. It does not use this case to discuss the potential competition doctrine. *See Illumina v. FTC*, *supra* note 6, at slip op. 10.

Most commentators believed that if any doctrine were to give the courts the authority to protect competition in Future Markets it would be the actual potential competition doctrine.[65] For example, the Merger Guidelines, in Section 2.4.A, extensively analyze actual potential competition. And as I said *supra,*[66] this section implies that actual potential competition allows the enforcers to protect competition in Future Markets.

But, as I have shown, courts use the actual potential competition doctrine to determine whether the relevant firm, if it did not enter the relevant transaction, would instead enter the relevant market itself—by expanding geographically. In all these cases the relevant products existed. Actual potential competition therefore does not help courts decide if and when they should protect competition in a Future Market.

In *Competition to Innovate and Future Potential Competition,*[67] on pages 195 to 199, I extensively analyzed the cases in which the Supreme Court, and other courts, developed the potential competition doctrine, and in particular the doctrine of actual potential competition. As I show, in all these cases the court had to determine if the relevant firm, if it did not enter the relevant transaction, would otherwise have itself sold already existing products in a new market.

In fact, on page 196 of *Competition to Innovate and Future Potential Competition* I analyzed the three cases upon which the Merger Guidelines base their analysis of actual potential competition:[68]

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[65] *See, e.g.* Hemphill and Wu, *supra* nt. 9 at 1894–96.
[66] *See supra* text accompanying nt. 38.
[67] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4.
[68] *See* Merger Guidelines, Section 2.4.A.. Actual Potential Competition: Eliminating Reasonably Probable Future Entry, nts. 24 and 25.

U.S. v. Penn-Olin Chem. Co., 378 U.S. 158, (1964), *U.S. v. Marine Bancorporation, Inc*., 418 U.S. 602, 94 S. Ct. 2856, 41 L.Ed.2d 978 (1974), and *Yamaha Motor Co., Ltd. v. F. T. C.,* 657 F.2d 971 (1981). I show that as in all the relevant cases, in these three cases as well, the respective court analyzed possible geographic expansion.

In none of the cases applying actual potential competition did a court analyze whether a firm would enter a Future Market. These courts therefore analyzed issues which are very different from those a court must analyze when determining if it should act to protect competition in a Future Market. When analyzing possible geographic expansion, for example, no court has to determine if a firm will develop a product it is trying to make. As I explained in *Competition to Innovate and Future Potential Competition*, and as I further explain *infra*,[69] in these cases courts developed standards which, while they may help them determine whether a firm may expand geographically, do not help a court determine if a firm may enter a Future Market. In short, courts developed the standard they apply in those cases in a very different context, and thus impose a standard which is, regarding Future Markets, inappropriate.

in *Illumina v. FTC* the Fifth Circuit implicitly confirmed this. The Court did not cite any legal doctrine which it said allows the enforcers to protect competition in a Future Market.[70] The Court, very conspicuously, did not apply actual potential competition.[71] It thus implicitly held that the

[69] *See infra* nts. 77-87 and accompanying text.
[70] It is also important to note that the Fifth Circuit it its footnote 7, and relatedly, Areeda & Hovenkamp in their ¶ 907, are not referring to the actual potential competition or perceived potential competition doctrines or the cases which developed these two strands of the potential competition doctrine. Footnote 7, and ¶ 907, simply say that if firms realize they may compete against each other in the future, and are thus in that sense potential competitors, and take current actions which they believe will help them compete in the future, then the firms are already actually competing again each other. This is true but, to repeat, has nothing to do with the potential competition doctrine.
[71] *See supra* text accompanying nt. 63.

enforcers cannot and should not use the actual potential competition doctrine to determine if they should act to protect competition in a Future Market. And the Fifth Circuit therefore also implicitly held that courts must develop a new doctrine, one which will allow them to decide when they should act to protect competition in a Future Market.

1. *FTC v. Meta Platforms: Actual Potential Competition Standard Makes no Sense*

While the Fifth Circuit in *Illumina v. FTC* did not try to apply the actual potential competition standard, in a similar, but still notably different, case another court did in fact try to apply the actual potential competition standard in what was at least arguably a Future Market case. In *FTC v. Meta*[72] the district court decided not to grant an injunction; it thus allowed Meta to buy Within. The district court's analysis shows why actual potential competition does not help courts analyze competition in Future Markets.

In this case Meta was not even trying to make the relevant future product. This is therefore not a true Future Market case. But the Court arguably treated this as if it were a Future Market case, and it applied, or at least tried to apply, the actual potential competition standard. The Court reached the only logical outcome: if Meta was not even trying to make the relevant future product then it obviously would never do so, or at least it was very unlikely to do so. But the district court's attempt to apply the actual potential competition standard shows why courts cannot use this doctrine to analyze Future Markets.

[72] *FTC v. Meta Platforms*, Case No. 5:22-cv-04325, 2023 WL 2346238 (N.D. Cal. Feb. 3, 2023).

Meta, the parent of Facebook, makes, among many other products, Beat Sabre, virtual reality software which provides what the FTC called incidental exercise software. Users waive their sabres to music not to get exercise—they do it for fun—but they nevertheless do get some exercise. They get incidental exercise. Within, by contrast, made the leading virtual reality software which users purchase precisely to get exercise. The FTC called this dedicated exercise software.

The FTC claimed, and the Court accepted, that the relevant market was that for dedicated exercise software. This market is new; all the relevant firms have developed their products within the last five years.[73] The FTC asked the Court for a preliminary injunction blocking the transaction and thus protecting competition in the market for dedicated exercise software.

But, as I said, Meta was not trying to enter the Future Market. Meta did not make, and was not trying to make, dedicated exercise software. It was certainly not trying to make better dedicated exercise software. As I explain in detail in *Competition to Innovate and Future Potential Competition,*[74] since Meta was not trying to make the relevant future product the Court—of course—found that Meta would not enter the Future Market.

Since the result in this case was a foregone conclusion—since Meta was not even trying to make a future product the Court would not block the transaction—in *Competition to Innovate and Future Potential Competition* I did not analyze the Court's reasoning in depth. But it is worth analyzing

[73] *Id.* at 9.

[74] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition*, *supra* nt. 4, at 214-218. *See also* Lawrence B. Landman *The Future Markets Model Explains Meta/Within: A Reply to Herb Hovenkamp,* ProMarket (May 29, 2023) https://www.promarket.org/2023/05/29/the-future-markets-model-explains-meta-within-a-reply-to-herb-hovenkamp/

the Court's reasoning in depth. The Court's reasoning shows why actual potential competition, the doctrine the Court tried to apply, did not help it analyze a market for products which do not exist yet.

First, and most obviously, the *Meta* court, citing actual potential competition cases, simply struggled to determine the standard it should apply. The court struggled because it was trying to fit a square peg in a round hole. It was analyzing cases in which a court sought to determine if a firm, if it did not enter into the relevant transaction, would otherwise expand—using already-existing products—into a new geographic market. But it was using these cases to try to develop a standard which would allow it to decide a completely different question: whether a firm would, in the future, try to develop a new, and presumably better, product and thus enter a Future Market.

When trying to determine what standard to apply the Court examined five cases. Although the Court failed to say so explicitly, in all five of these cases, as noted *supra,*[75] the relevant products existed. In the first case, *FTC v. Atl. Richfield Co*., 549 F.2d 289 (4th Cir. 1977), the *Meta* court quoted the standard the *Atl. Richfield* court applied when it determined if Atlantic Richfield, if it did not buy Anaconda, would itself have entered the copper market.[76] But the copper existed. The FTC did not claim that Atlantic Richfield would make better copper, would mine it in a better way, or would, regarding copper, innovate in any way. In fact, the *Atl. Richfield* court even said: "Arco [Atlantic Richfield]…has no technological skills readily transferrable to the copper markets."[77]

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[75] *See supra* nt. 67 and accompanying text.
[76] *FTC v. Meta Platforms*, *supra* nt. 72, slip op. at 41.
[77] *FTC v. Atl. Richfield Co*., 549 F.2d 289, 295 (4th Cir. 1977).

The *Meta* court noted that the *Atl. Richfield* court said it would require "strict proof" that Atlantic Richfield, if it did not buy Anaconda, would itself enter the copper market.[78]

The *Meta* court then analyzed *Tenneco, Inc. v. FTC*, 689 F.2d 346, 352 (2d Cir. 1982).[79] In this case the court had to decide it Tenneco, if it did not purchase the Monroe Auto Equipment Co., would instead itself enter the market for replacement shock absorbers. But, again, the shock absorbers existed. The *Meta* court noted that the *Tenneco* court applied a "reasonable probability standard," thus requiring the FTC to prove that there was a "better than fifty percent chance" that Tenneco, if it did not buy Monroe, would itself enter the replacement shock absorber market.[80]

The *Meta* court then noted that the Fifth Circuit in *Mercantile Texas Corp. v. Bd. of Governors*, 638 F.2d 1255 (5th Cir. 1981) also applied this reasonable probability standard.[81] This case involved the merger to two banks. However broadly one may wish to define the term, neither bank made any new product or provided any new service. In 1981 money was simply money.

Since the *Meta* court went on to adopt this standard, it is worth showing how the *Meta* court understood this standard. The *Meta* court said:

> The Fifth Circuit adopted the "reasonable probability" standard, which it remarked "signifies that an event has a better than fifty percent chance of occurring [with a] 'reasonable' probability represent[ing] an even greater likelihood of the event's occurrence."[82]

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[78] *Id.*
[79] *FTC v. Meta Platforms*, *supra* nt. 72, slip op. at 41.
[80] *See* Lawrence B. Landman, *Competition to Innovate and Future Potential Competition*, *supra* nt. 4, at 196-197.
[81] *FTC v. Meta Platforms*, *supra* nt. 72, slip op. at 41.
[82] *Id.*

The fourth case the *Meta* court analyzed was *Yamaha Motor Co., Ltd. v. F. T. C.,* 657 F.2d 971 (1981). In this case the court had to decide if Yamaha, if it did not enter into a joint venture with Brunswick, would itself enter the American outboard motor market. As the *Meta* court noted, the *Yamaha* court found that it had to determine if Yamaha, if it had not entered the relevant joint venture, would "*probably* have entered the [relevant] market independently [emphasis in original]."[83] This was the market for outboard motors, and those motors existed. [84]

The last case the *Meta* court reviewed was *B.A.T. Industries*, 1984 WL 565384 (Dec. 17, 1984).[85] In this case the court had to decide if B.A.T, whose subsidiary Wiggins Teape Group was the largest manufacturer of chemical carbonless paper outside the United States, would itself have entered the American market if it had not purchased the Appleton Papers Division of NCR, the largest manufacturer of chemical carbonless paper in the United States. Again, the relevant product existed. And as the *Meta* court said, the FTC itself, in its *B.A.T. Industries* decision, found that to block the transaction it would require "clear proof" that B.A.T, if it had not bought Appelton, would have itself entered the American market. And, once again, this was a market for an existing product, in this case chemical carbonless paper.

The *Meta* court, after reviewing the standards these various courts applied, then chose one itself. The Court said that since the Clayton Act recognizes that when deciding a Section 7 case a court must evaluate probabilities, not certainties, the Court found that:

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[83] *Id.*
[84] *See also* Lawrence B. Landman, *Competition to Innovate and Future Potential Competition*, *supra* nt. 4, at 196.
[85] *FTC v. Meta Platforms*, *supra nt*. 72, at 41.

> the "reasonable probability" standard—as clarified by the Fifth Circuit to suggest a likelihood noticeably greater than fifty percent—is the standard of proof that the FTC must present. [86]

The question the Court thus had to answer was: "was it reasonably probable (noticeably greater than fifty percent likely) that Meta would enter the Future Market (that it would at least try to make dedicated exercise software)?" The Court then went on to essentially say that since Meta was not trying to make dedicated exercise software it was not reasonably probably that it would enter the market.

But if Meta had been competing in the Future Market, if it had been trying to make dedicated exercise software,[87] then that standard would make no sense. In this different situation the court would still have to answer the same question: "was it reasonably probable (noticeably greater than fifty percent likely) that Meta would enter the Future Market (that it would try to make dedicated exercise software)?" But if Meta were trying to make dedicated exercise software then it would already be competing in the Future Market. The probability that it would enter the market would be 100 percent. In fact, the question makes no sense.

Saying the same thing another way, the *Meta* court was trying to determine if it was it "reasonably probable (noticeably greater than fifty percent likely) that Meta would enter the Future Market (that it would try to make dedicated exercise software)." In every true Future Market case the

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[86] *Id*.
[87] The Court does say that Meta lacked certain skills and capabilities it would have needed to make dedicated exercise software. *FTC v. Meta Platforms*, *supra* nt. 72, at 43-46. But the Court implies that if Meta had nevertheless tried to make dedicated exercise software then that act of trying to make the relevant product would qualify as "entering the market." Nowhere does the Court say that for Meta to have entered the market it must have actually sold a product.

relevant firms were trying to make the relevant future products. They are already competing in the Future Market. They have already entered the Future Market. Thus, pursuant to the district court's logic, in all these cases all the relevant firms satisfied what it believes is the relevant standard, and the enforcers, or the courts, would have the authority to protect competition in the relevant Future Market.

In other words, pursuant to the district court's logic, if Meta had been simply trying to make dedicated exercise software then Meta would have entered the market (the Future Market) and the FTC could have blocked the transaction. But that standard proves too much.[88] Pursuant to that standard courts would have the authority to block any transaction in which, as part of their analysis, they consider the possibility that any relevant company is making any future product, so long as that company is trying to make that future product, and even if that product does not exist yet.[89]

And even if one interpreted *Meta* in this way, and one believes that the Court's decision gives any court the authority to block any transaction in which any one of the relevant firms is already trying to make a future product, the Court would still need a standard to help it decide *when* it should block a transaction so as to protect competition in a Future Market. Thus, quite simply, courts need a doctrine which allows them to apply a standard specifically designed to help them decide

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[88] Also showing the inapplicability of actual potential competition to Future Markets, actual potential competition allows an enforcer to block a transaction if the relevant market is concentrated. But, again, courts developed this doctrine when examining markets for existing products. How can a court determine if a market for products which do not exist yet is concentrated? Future Potential Competition does this by using a structural presumption, one which would probably not be appropriate when a court is analyzing a market for existing products. I discuss this structural presumption *infra*. *See infra* text accompanying nts. 101 to 104.

[89] Such an interpretation would contradict the finding of the administrative law judge in *Illumina/Grail*. He found that since none of Grail's competitors sold any products the products these firms were trying to make were, for antitrust purposes, irrelevant. *See* Initial Decision, *supra* nt. 58 and Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4, at 202.

if and when they should block a transaction which involves products which do not exist yet. Courts thus need a doctrine to help them decide when they should act to protect competition in a Future Market.

B. Future Potential Competition: Balance All Appropriate Variables

Unlike the Meta court, the Fifth Circuit in *Illumina v. FTC* did not try to apply actual potential competition. The Fifth Circuit thus implicitly found that this doctrine will not allow it to determine if and when it should act to protect competition in a Future Market. But beyond this the Fifth Circuit simply said nothing. While the Fifth Circuit did protect competition in a Future Market, that Court did not say what doctrine allowed it to do so. In *Competition to Innovate and Future Potential Competition* I developed the doctrine courts need to protect competition in a Future Market. I call this new doctrine Future Potential Competition. In this article I further refine this doctrine.

I lay out the general principals of Future Potential Competition on pages 192 to 224 of *Competition to Innovate and Future Potential Competition.* As I explain, Future Potential Competition, most importantly, requires courts to balance all appropriate variables. When deciding if it will allow two firms trying to develop the same possible future products to merge, a court must consider, first, it the relevant possible future products are sufficiently developed that the court will consider them future product (Prong C of the Future Markets Model). And the court must decide if the possible future products will have features which are sufficiently similar that the court will consider them future competing products (Prong D of the Future Markets Model). Future Potential Competition asks courts, when they make these two determinations, to consider the entire context of the relevant transaction.

Thus if more firms are trying to make the same, or similar, future products, then the Future Market is more likely to remain competitive even if two of the firms trying to make the same, or similar, future product merge. By contrast, if only a few firms, or no other firms, are trying to make the same, or similar, future products, then a court should be quicker to conclude that each of the two merging firms are making future products which are likely to exist, and likely to compete against each other, in the future. A court should thus be quicker to block a transaction which takes place within a less competitive Future Market. In other words, it should be quicker to protect competition in a less competitive Future Market.

In *Illumina v. FTC* the Fifth Circuit did, implicitly, apply this standard. It found that at least three firms were close enough to developing the relevant product that the Court would consider them future products.[90] And it held that these products' features, although not identical, were sufficiently similar that the Court would consider them to be future competing products.[91] The Court found this combination of number of competitors, the likelihood that the competitiors would actually make the products they are trying to make (Prong C), and the likelihood that the products would have features which would lead them to compete against each other (Prong D) lead it to conclude that it should block the transaction.

This provides some guidance, but to properly decide when they should act to protect competition in a Future Markets courts need more guidance. They need a comprehensive framework which

[90] *See supra* nt. 61.
[91] *See supra* nt. 62.

leads them to consider all appropriate variables. The new Merger Guidelines not only raise the appropriate issues, they also show how the enforcers' approach these issues.

C. Future Potential Competition Builds on Merger Guidelines

The Merger Guidelines say they will protect competition in Future Markets.[92] But in the section of the Merger Guidelines in which the enforcers say they will protect competition in Future Markets the enforcers also say that, to the extent they can, they will use the usual tools of competitive analysis when they analyze these markets. This section, Section 4.3.D.7., entitled "Market Definition When There is Harm to Innovation," says, in full:

> When considering harm to competition in innovation, *market definition may follow the same approaches that are used to analyze other dimensions of competition*. In the case where a merger may substantially lessen competition by decreasing incentives for innovation, *the Agencies may define relevant antitrust markets around the products that would result from that innovation, even if they do not yet exist*. In some cases, the Agencies may analyze different relevant markets when considering innovation than when considering other dimensions of competition. [Emphasis added]

In this section, therefore, the enforcers not only say that they protect competition in Future Markets, but they also say that when they do so "market definition may follow the same approaches that are used to analyze other dimensions of competition." Indeed, this is the logical approach, and thus the only approach the enforcers could take. But, in truth, regarding Future Markets, they can do this to only a limited extent. If the relevant products do not exist yet, then the products do not have prices. And if the products do not exist yet, then they do not have market shares. Anyone

[92] *See supra* text accompanying nt. 29.

analyzing a Future Market therefore cannot use standard HHI[93] or SSNIP[94] analysis,[95] or other statistical techniques. The enforcers, and Future Potential Competition, can only use approximations of these tools. And the best approximation, as I will show,[96] are structural presumptions. Further, the enforcers have in fact incorporated such structural presumptions into their Merger Guidelines.[97]

When analyzing competition in a Future Market, Future Potential Competition assumes that, unless there is a strong reason to believe otherwise, each product has an equal share of the Future Market. Thus, for example, if three firms are competing in the Future Market (including any firms already selling any relevant products), then each firm's share of the Future Market will presumably be 33.3 percent. If there are four firms competing in the Future Market, then Future Potential Competition assumes that the market share of each is 25 percent, and so on.

Based on these assumptions Future Potential Competition thus requires a competition authority to decide how many firms it believes must compete in a Future Market to make that market competitive.[98] And indeed the enforcers have, albeit implicitly, answered this question in their Guidelines. The enforcers say they will consider a market share of greater than 30 percent as excessive.[99] This implies that the enforcers have developed a policy which requires, for a Future

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[93] Herfindahl-Hirschman Index.
[94] Small but Significant Non-transitory Increase in Price.
[95] The Fifth Circuit recognized this in when it said: "In a research-and-development market where most products have yet to reach the consumer marketplace, there are no prices from which to build a data set, and thus no way to run a hypothetical monopolist test analysis." *Illumina v. FTC,* slip op. at 13 nt. 8.
[96] *See infra* nts. 101 to 104.
[97] *Id.*
[98] Just as courts will only apply actual potential competition or perceived potential competition to keep competitive markets which are concentrated (FTC v. Meta Platforms, *supra nt*. 72, at 33), so too should they only apply Future Potential Competition to keep competitive Future Markets which are concentrated.
[99] Merger Guidelines, *supra nt.* 5, at 6.

Market to be competitive, that at least four firms must compete in the market. And that does indeed comply with how the enforcers have historically acted. In all the cases I have reviewed in which the enforcers, or the European authorities, have acted to protect competition in Future Markets, four or fewer firms competed in the Future Market.[100] This is thus a modest, the bare minimum, requirement.

This bare minimum requirement, that at least four firms must compete in the Future Market, illustrates how and when a competition authority may implement the policy it must develop, one which will allow it, in the manner it deems appropriate, to apply the Future Markets Model and thus protect competition in a Future Market. Assume, for example, that four firms have developed a future product to such an extent that they are almost finished, and another firm, a fifth firm, is lagging behind in its product development efforts. The laggard may develop a product, but it may not; the situation is unclear. Assume that two of the firms that have almost develop a product want to merge.

As a policy decision, the enforcer could conclude that the laggard will not develop a product. Regarding this firm the enforcer would therefore answer "No" to question C of the Future Markets Model. If the enforcers chose to conclude that the laggard would not develop a product, and if two of the firms which have almost developed their products merged, then only three firms would be left to compete in the Future Market. The enforcer could conclude that the Future Market would then be insufficiently competitive.

[100] *See supra* nts. 3 and 4. Note that the Court in *Illumina v. FTC* analyzed possible vertical foreclosure, and thus performed an analysis very different from that a court would perform when it simply determines if a transaction leaves a Future Market with an insufficient number of competitors.

In these situations on the edge, where the answer is not clear, the enforcers cannot simply guess. They must instead choose a policy, and then implement that policy. They must choose the policy which, given the enforcers' inability to predict the future, nevertheless allows them, they believe, to ensure that a Future Market is sufficiently competitive. In the above example the enforcer could choose not to be aggressive, conclude that the laggard will develop the relevant product, and thus allow the merger. But whether it concludes that the relevant firm will develop the product, or whether it concludes that the relevant firm will not develop the product, it would not be acting because it knows whether the product will or will not ever exist. It does not know, and it cannot know. It would be letting the policy it has chosen resolve the ambiguity.

To give a slightly different example, the relevant product may not be lagging in development, but it may instead be similar, but not identical, to the products the other three firms are making. To enforce the same policy goal the enforcer may therefore assume that this product either will or will not compete in the future with the products the other three firms are trying to make. In this scenario as well, the enforcer would be resolving an unclear situation in a way which would be consistent with its underlying policy. In this scenario the enforcer would be using its policy to help it answer question D of the Future Markets Model. The point is that all competition authorities must develop a policy which will allow them to answer, in unclear situations, the questions the Future Markets Model asks.

Thus all competition authorities must develop two separate policies. First, they must determine how aggressively they will enforce the Future Markets Model. Second, but relatedly, they must determine how many firms must compete in a Future Market to make that market competitive.

D. MERGER GUIDELINES AND NUMBER OF COMPETITORS IN THE FUTURE MARKET

As noted *supra*, one could interpret the Merger Guidelines as requiring that, for a Future Market to be competitive, at a minimum, only four firms must compete in that market.[101] But the Merger Guidelines could also be interpreted as requiring, for a Future Market to be competitive, that at least six firm compete in that market. The Merger Guidelines say: "Markets with post-merger HHI greater than 1,800 are highly concentrated"[102] And the footnote immediately following this passage, footnote 26, conveniently shows that a market will avoid this definition of highly concentrated if, assuming all competing firms have equal market shares, six firms compete in that market.

1. Redundant Competition and Future Markets

This discussion, analyzing the Guidelines' market share and HHI standards, and thus their definition of a concentrated market, relate to markets for existing products. The relevant Guideline provisions all assume the relevant products exist. But products competing in Future Markets do not exist. Firms are still trying to develop these products. Sometimes a firm will succeed, and develop a product. But of course sometimes a firm will fail, and even though it is competing in the Future Market, and trying to develop a product, it will never actually sell a product.

[101] *See supra* text accompanying nts. 99-100.
[102] Merger Guidelines Sec. 2.1.

Carstensen and Lande teach us that even markets for existing products need more than the minimum number of competitors. Firms selling actual products will, sometimes, fail. To control for this, markets need extra competitors. They need, as Carstensen and Lande show, redundant competition. Just as we humans have two lungs, two kidneys and many other similarly "redundant" biological systems just in case one fails, as Carstensen and Lande say, markets too should have redundant competitors. They need extra competitors because some will fail.[103]

And if markets for existing products need redundant competitors, then markets for products which do not exist yet most certainly need redundant competitors. It is certainly true that not every firm trying to make a product will succeed. Not every firm competing in a Future Market will actually sell a product.

Thus even if an enforcer chose to apply the less demanding requirement that a Future Market, to be competitive, must have at least four competitors, it must increase this number by at least one. It must require some redundant competition: it must assume that, at a bare minimum, at least one firm, though trying to make a future product, will not succeed. Thus it would seem that the enforcers, when enforcing their new Merger Guidelines, should require a Future Market to have, at the absolute bare minimum, if it were to approve the relevant transaction, five competitors remaining in the relevant Future Market.

However, given the importance of redundant competition, and the reality that not all product development efforts succeed, the enforcers could reasonably conclude that for a Future Market to

[103] Peter C. Carstensen & Robert H. Lande, *The Merger Incipiency Doctrine and the Importance of 'Redundant' Competitors*, 2018 Wis. L. Rev. 783 (2018).

be competitive at least seven firms should compete in the market. They could use as their definition of a competitive market in this context the definition their Guidelines derive from a market's HHI. As noted *supra,* this definition requires, for a market to be competitive, that six firms compete in that market.[104] The enforcers could then include redundant competition in their definition and conclude that for a Future Market to be competitive one more firm compete in that market. It would thus require that, to be competitive, seven firms compete in a Future Market.

E. Policy Implicit in Guidelines: Enforcers will Aggressively protect competition in Future Markets

In other sections the Merger Guidelines also explain, at least to some extent, the enforcers' policy. . These sections say the enforcers will protect competition in Future Markets aggressively.

1. Merger Guidelines are Skeptical of Efficiencies

First, the Merger Guidelines do this by expressing skepticism toward efficiencies. As I explain in greater detail in *Competition to Innovate and Future Potential Competition,*[105] if two merging firms are both trying to make the same future product then they will undoubtedly claim that only if they combine their research efforts will they be able to bring a new product to market. Alternatively, they will claim that they can bring this product to market faster, or they will claim they can bring a better product to market.

As I also explain, such claims must be taken with a large grain of salt. When the merging firms invested in their respective research programs they each believed that their separate research program would succeed, or at least that the chances of success were sufficiently great that they

[104] *See supra* text accompanying nt. 102.
[105] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4, at 211-12.

should invest. And now that the firms want to combine their research efforts, and possibly give themselves market power in the Future Market, they suddenly, conveniently, change their minds.[106]

Even the 2010 Horizonal Guidelines were skeptical that the enforcers could verify research and development efficiencies.[107] The new Merger Guidelines do not discuss research and development efficiencies specifically, and certainly do not recognize any. Further, the new Merger Guidelines, in Section 3.3, express more skepticism towards efficiencies generally than did the 2010 Horizonal Guidelines.[108] The Merger Guidelines therefore certainly do not intend to challenge the 2010 Horizontal Guidelines' skepticism towards research and development efficiencies.

And if the enforcers are skeptical of efficiencies generally, and research and development efficiencies specifically, then they are more likely to stop firms competing in Future Markets from merging. In other words, they are more likely to aggressively protect competition in Future Markets.

2. Hart-Scott-Rodino: Focus on Future Markets.

The enforcers also signaled that they intend to aggressively protect competition in Future Markets when the FTC proposed new Hart-Scott-Rodino rules. When making this proposal the FTC said more or less explicitly that it and DOJ would aggressively protect competition in Future Markets.

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[106] Indeed, this is exactly the claim Illumina made to the Fifth Circuit. But the Court, having seen no evidence supporting this claim, rejected it. *Illumina v. FTC*, *supra* nt. 6, at slip. op. 32.

[107] 2010 Horizontal Merger Guidelines, section 10 ("Other efficiencies, such as those relating to research and development, are potentially substantial but are generally less susceptible to verification and may be the result of anticompetitive output reductions.")

[108] *Id., passim*.

The fourth of the FTC's six proposed rule changes would require firms to provide extensive information regarding what the proposed rules themselves call "pipeline or pre-revenue products."[109]

These proposed rule changes show that the enforcers will pay close attention to the products merging firms are developing, their pipeline products. And if the enforcers have chosen to pay close attention to products firms are developing, then the enforcers have obviously chosen to pay close attention to competition in Future Markets. And if the enforcers have chosen to pay close attention to competition in Future Markets, this is most probably because they have decided to aggressively protect competition in these markets. These new rule changes thus clearly signal that the enforcers will protect competition in Future Markets aggressively.

3. Protect Competition in Nascent Markets, which are Future Markets

In Section 2.6.A of their Merger Guidelines the enforcers say they will protect nascent competition. While different commentators define nascent competition differently, the Merger Guidelines define a nascent competitor most importantly as "a firm that could grow into a significant rival" of a dominant firm.[110] As I have already explained in great detail, using this definition nascent competition is simply competition between a big firm and a small firm to make the same future product.[111] In other words, the big firm and the small firm are competing in the same Future

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[109] Premerger Notification; Reporting and Waiting Period Requirements, 88 Federal Register 42178, 42119 (proposed June 29, 2023). The proposed rules would require "[A]cquiring persons should also list all NAICS codes for products or services under development by the acquiring person that would overlap with the products or services of the acquired entity(s) or assets, inclusive of products or services that are known to be under development by the acquired entity(s) or assets." *Id.* at 42215.
[110] Merger Guidelines at 20.
[111] Lawrence B. Landman, *Competition to Innovate and Future Potential Competition, supra* nt. 4, at 185-191 and Lawrence B. Landman, *Nascent competition and transnational jurisdiction: the future markets model explains the authorities' actions, supra* nt. 4, *passim.*

Market. Thus in this section the enforcers say that when analyzing such a market they will, most probably, not allow the big firm to buy the small firm. In a Future Market with only two competitors it is hardly surprising that the enforcers would not allow one competitor to buy the other.[112] In this section therefore the enforcers are, again, implicitly saying that they will protect competition in Future Markets aggressively.

But in this section the enforcers say more. They say, among other things, that a nascent competitor may be a firm which could facilitate the growth of a dominant firm's rivals. They also say that a nascent competitor may be a firm which first establishes itself in a niche market, but does so in a way which allows it to challenge the dominant firm in the long term. This section of the Guidelines goes into great detail explaining the myriad ways in which a small firm could, over time, enhance its ability to compete against a dominant firm. Analyzing all these myriad possibilities are, on one hand, beyond the scope of this article. But on the other hand, I will observe that in this section the enforcers run the risk of violating the Fifth Circuit's instruction that an enforcer's claim that a transaction will harm future competition not be "too speculative."[113]

F. FUTURE POTENTIAL COMPETITION HELPS COURTS APPLY THE FIFTH CIRCUIT'S STANDARD

In *Illumina v. FTC* the Fifth Circuit created a new standard, one which will allow the enforcers, and courts to properly protect competition in a Future Market. The Fifth Circuit Court said

[112] On page 20, in nt. 37 of the Merger Guidelines the enforcers, though discussing nascent competition, say that if they are analyzing a market with no dominant firm, then they will use other sections of the Guidelines to analyze the relevant transaction. If a market lacks a dominant firm, then most probably more than two firms are competing in that market. One may call this a "normal" Future Market, one in which at least two, and probably several, companies are trying to make the relevant future product. And this article shows how the enforcers can indeed use many different sections of the Merger Guidelines to analyze such "normal" Future Markets.
[113] *Illumina v. FTC*, *supra* note 6, at slip op. 13-14.

that when an enforcer seeks to protect competition in a Future Market its claims, first, that the relevant products will exist (its answer to Prong C of the Future Markets Model), and, second, that the relevant products will have features which will lead them to compete against each other in the future (its answer to Prong D of the Future Markets Model), cannot be "too speculative."[114]

This standard contains the core of Future Potential Competition. Future Potential Competition provides the additional guidance courts need to determine when an enforcer's claim that it should act to protect competition in a Future Market is not "too speculative." The test Future Potential Competition asks courts to apply is thus an elaboration of, and fully consistent with, the new standard the Fifth Circuit created.

G. PULLING IT ALL TOGETHER: SANOFI/MAZE

The FTC's decision to stop Sanofi from buying Maze illustrates all this. This case shows, first, that nascent competition is simply competition in a Future Market between one big firm and one small firm. Second, it shows that the enforcers aggressively protect competition in Future Markets. Third, it shows that Future Potential Competition will lead a court to address the issues it must address when analyzing competition in a Future Market.

According to the Complaint, Sanofi is a monopolist: it is the only firm selling a treatment for Pompe disease, a rare, debilitating muscle disease.[115] Every two weeks patients must go to a

[114] *See supra* nt. 55 and accompanying text.
[115] Complaint, In re Sanofi, Genzyme and Maze Therapeutics, Docket No. 9422 (Dec. 11, 2023), at para 1.

health facility to receive intravenous treatments.[116] Sanofi, the Complaint alleges, charges a monopolist's price for its treatment: more than $750,000 per year.[117] Maze, which the Complaint calls a nascent competitor,[118] is developing a treatment which, if it exists, will allow patients to simply take a pill, which of course they could do anywhere.[119] But Maze' product has only passed Phase I trials, albeit with "positive results."[120]

In this case the FTC acted aggressively. As Commissioners Khan and Slaughter acknowledged in the joint statement they issued at the same time that the FTC issued its Complaint, this is the first time an enforcer has acted to protect competition in a Future Market although one of the relevant drugs as only passed Phase I.[121]

Further, the FTC carefully defined the Future Market narrowly; as one in which only two firms, the monopolist and the nascent competitor, competed. The Complaint says that "a small number of other firms have initiated Phase I clinical trials for other Pompe disease treatments."[122] Yet the FTC found that these firms did not compete in the relevant Future Market. Regarding these other firms, whose treatments were still in Phase I trials, the FTC concluded that these possible future products were not sufficiently developed, and thus did not compete in the Future Market (Regarding these products the FTC answered "No" to Prong C of the Future Markets Model.) Yet regarding Maze' product, which had only passed its

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[116] *Id.* at para. 4.
[117] *Id.* at para. 1.
[118] *Id.* at *e.g.* para. 3.
[119] *Id.* at para. 50
[120] *Id.* at para. 56.
[121] Statement of Chair Lina M. Khan Joined by Commissioner Rebecca Kelly Slaughter in the Matter of Sanofi/Maze Therapeutics Commission File No. D09422 (Dec. 20, 2023), at p. 2 nt. 3.
[122] Complaint, *supra* nt. 115 at para. 16.

Phase I trial, the FTC said this product was sufficiently developed that it would consider it a probable future product (Regarding Maze' product the FTC answered "Yes" to Prong C). Clearly the FTC drew its distinction carefully and aggressively: so long as a treatment has passed Phase I, but not if it is still in Phase I, would the FTC consider the treatment to be a possible future product.

The FTC also excluded another product from the market. The FDA had just approved Amicus Therapeutics' treatment, which helps those who Sanofi's treatment cannot help.[123] The FTC found that this product has not affected the price of Sanofi's product, and therefore does not compete in the same market as Sanofi's product.[124] In other words, regarding this possible competitor the FTC found that its features were sufficiently different that it did not compete in the Future Market. (Regarding this product the FTC answered "No" to prong D.)

The FTC thus found a Future Market with only two competitors, the monopolist Sanofi and the nascent competitor Maze. While the parties abandoned their transaction, if they had pursued it the FTC would have had to convince a court that its claim that it should act to protect competition in the Future Market was not "too speculative." It would have had to convince the court, first, that its claim that a potential treatment which has passed Phase I, but only Phase I, is sufficiently likely to become a future product that that claim is not "too speculative."

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[123] *Id.* at para. 4.
[124] *Id.* at para. 45.

But, second, the FTC would also have had to convince a court that it would be “too speculative” for that court to also conclude that the other possible future treatments for Pompe disease, which were still in Phase I, were possible future products. And the FTC would have had to convince the court that it should exclude Amicus Therapeutics’ product from the market. The FTC would have had to make these final two arguments because it would have to convince the court that it properly defined the Future Market as one in which only Sanofi and Maze competed.

The FTC would need to convince the court to accept its definition of the Future Market, one in which only two firms competed, because only then could it argue that, balancing all appropriate variables, the court should block the transaction. Since Maze was Sanofi’s only competitor, the FTC would have argued, the court could not allow Sanofi to buy its only competitor and thus preserve its monopoly. Even if the court could not know if Maze’ product would actually become a product, the FTC would have argued, the court, after balancing all appropriate variables, should err on the side of caution and conclude that the FTC’s claim that it needed to act to stop Sanofi from preserving its monopoly was not “too speculative.” In short, the FTC artfully defined the Future Market so that it could ask the court to apply Future Potential Competition in a way which allowed it to block the transaction.

By contrast Sanofi, if it had opposed the FTC, would have argued that the FTC defined the Future Market incorrectly. It would have argued, first, that Maze’s product was not sufficiently developed that the FTC could claim that would be a future product. The FTC’s claim, Sanofi would have argued, was “too speculative.” Sanofi would have argued that since

its product did not compete with Maze' possible future product the court should allow it to buy Maze.

Sanofi would also have argued that if it were not "too speculative" for the court to conclude that Maze' treatment would, in the future, become a product, then it was also not "too speculative" for the court to conclude that the treatments of the other firms, which were still in Phase I, would also, in the future, become products. Sanofi may also have argued that the court should consider Amicus Therapeutics' product as part of the Future Market. Sanofi would have told the court that with so many firms competing in the Future Market even if Sanofi bought Maze the Future Market would still be competitive.

In other words, Sanofi would have asked the court to balance the appropriate variables in a different way than the way in which the FTC would have asked the court to balance the appropriate variables. Sanofi would thus have asked the court to reach a different conclusion. But Sanofi would not have challenged the premise that the court should balance the appropriate variables. Sanofi would not have challenged the premise that the court must apply Future Potential Competition.

III. CONCLUSION: AGGRESSIVLY ENFORCING THE FUTURE MARKETS MODEL ALLOWS THE ENFORCERS TO PROTECT INNOVATION

A. THE ENFORCERS SAY THEY WILL PROTECT ALL FIRMS' ABILITY TO MAKE NEW PRODUCTS

The enforcers say in their Merger Guidelines that they will not only use Section 7 of the Clayton Act, but also Section 2 of the Sherman Act, to protect nascent competition. But nascent

competition is just competition between a big firm and a small firm in a Future Market[125]. Thus in their Merger Guidelines the enforcers really say that they will use not only the Clayton Act, but also the Sherman Act, to protect competition in Future Markets. And indeed, as I have shown, the enforcers do indeed say they will use the Clayton Act, as well as the Sherman Act, to protect competition in Future Markets.

To justify their claim that they should use the Sherman Act to protect nascent competition the Guidelines repeat the well-known quote from *US v. Microsoft*:

> [I]t would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will.[126]

Yet, while this is true, it is also be inimical to the purpose of the Clayton Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will. Indeed, it would be inimical to the purposes of any antitrust statute to allow monopolists free reign to squash nascent competitors. Thus in this passage the *Microsoft* court really recognized that the purpose of all the antitrust statutes is to protect nascent competitors. More than this, the *Microsoft* court recognized that it is the purpose of all the antitrust statutes to protect competition to innovate: to keep markets open and competitive, and thus, not just keep prices down, but also, and perhaps more importantly, drive firms to develop new products.[127]

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[125] *See supra* nt. 111

[126] Revised Merger Guidelines, *supra* nt. 5, at 21 nt. 64, quoting *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam) at 79.

[127] Indeed, this is the purpose of all the antitrust laws. *See* Lawrence B. Landman, *The Economics of Future Goods Markets, supra* nt. 3.

The *Microsoft* court acted to protect smaller firms' ability to challenge a dominant firm, and thus, indeed, it acted to protect these smaller firms' ability to make new products.[128] The Court did this because it understood that the drive to make new products, the drive to innovate, drives economic growth. It recognized, at least implicitly, what Phillip E. Areeda and Herbert Hovenkamp said in their seminal treatise:

> Over modern history innovation has very likely produced considerably greater economic gains than the simple movement of markets toward greater price competition. The inverse of that statement presents antitrust with an important corollary: if innovation contributes so much more than competition to economic growth, then restraints on innovation very likely produce a far greater amount of economic harm than traditional restraints on output or price. As a result, antitrust, with its heavy concern that prices be kept as close as possible to cost, is often shooting at the wrong target. Restraints on innovation are very likely even more harmful than traditional price cartels, which we usually consider to be the most harmful anticompetitive practice. Innovation restraints are almost certainly more harmful than a great many of the exclusionary practices that antitrust has condemned, often without fully understanding them.[129]

Thus the key policy of antitrust law should be to remove restraints on innovation. And to remove restraints on innovation an enforcer should therefore answer the questions the Future Markets Model poses in a way which allows it to err on the side of protecting competition in a Future Market. It would thus be erring on the side of removing restraints on innovation.

And indeed this is seemingly what the enforcers are doing. First, in their new Merger Guidelines they not only acknowledge that they protect competition in Future Markets, but they also implicitly

[128] The market the *Microsoft* court protected was a Future Market. Sun and Navigator both made middleware and Microsoft feared that this middleware could grow into operating systems. Given the speed at which operating systems improve, especially back in 2001 when this case was decided, the operating systems Sun and Navigator may have developed would, probably, have been better than the version of Windows which existed when Microsoft engaged in its anticompetitive practices. Microsoft certainly feared that Sun's and Navigator's possible future operating systems would be better than the then-current version of Windows.

[129] Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application;* Section 704d Monopolistic restraints on innovation (2017). (footnotes omitted)

incorporate the Future Markets Model into their Guidelines. Second, they changed their assumptions, and, at least compared to the 2010 Horizontal Merger Guidelines, require more firms to compete in a market before they conclude that that market is competitive. And while this includes all markets, it also includes Future Markets.[130]

Third, they are also less inclined than they have been in the past to recognize efficiencies, including research and development efficiencies. Fourth, they have also proposed new Hart-Scott-Rodono rules which would require firms to provide more information on many aspects of their business, including the products they are developing. The enforcers are asking for this information, obviously, so they can follow developments in Future Markets, and thus keep them competitive. Fifth, and finally, cases such as *FTC v. Meta, Illumina v. FTC and Sanofi/Maze* show that the enforcers have been aggressively protecting competition in Future Markets, and one should expect them to continue to do so.

B. THE FUTURE MARKETS MODEL AND FUTURE POTENTIAL COMPETITION: TOOLS TO PROTECT INNOVATION

Areeda and Hovenkamp also say in their seminal treatise that courts have historically found it easier to regulate short term prices than innovation. And because courts found it easier to focus on short term prices, that is what they have done:

> In innovation-intensive markets, antitrust would seem to be overly concerned with the impact of practices on price and insufficiently concerned with longer-run effects on technological progress. In most cases this concern is very likely justified on administrative grounds. Above-cost pricing is a "short-run" concern in that it looks for immediate price impacts. This almost exclusive antitrust concern with the short run is largely driven by administrative limitations. It is difficult enough for antitrust tribunals to

[130] Merger Guidelines, *supra* nt. 7, at 6 nt. 15.

> estimate immediate or short-run price effects; assessing what might happen a few years down the road is virtually impossible. This is particularly true in private plaintiff judicial proceedings in the district courts, where much of the fact finding is undertaken by juries.
>
> Deviations from competitive pricing are much easier for tribunals to measure than impact on innovation. For most firms, costs are relatively stable and observable, and we have a great deal of useful theory about market structure and the relationship between cost and prices. In sharp contrast, the effects of innovation or of restraints on innovation cast us into territory where outcomes can be radically indeterminate. In many industries firms launch dozens of research projects, anticipating that only a few will produce marketable, profitable results. But, ex ante, they do not know which ones will succeed and which ones will fail.[131]

But after extensively analyzing almost all the cases in which not just the American, but also the European, competition authorities have protected competition to innovate I derived the Future Markets Model. The Model shows how the competition authorities actually regulate competition to innovate. More than that, it shows how the competition authorities have always protected competition to innovate. All I did was state explicitly what the authorities have always been doing implicitly. The competition authorities, not I, developed the Model. And now that the authorities can apply the Future Markets Model explicitly, they have the analytical tool they need to protect competition to innovate.

And not only do the enforcers have the analytical tool they need to protect competition in Future Markets, they also now have the authority they need. *Illumina v. FTC* gives the enforcers that authority. And in its opinion the Fifth Circuit also, at least implicitly, helped develop Future Potential Competition, the legal doctrine the enforcers need to protect competition in Future

[131] Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application;* Section 704d Monopolistic restraints on innovation (2017).

Markets. With this authority, and these tools, the enforcers can now quickly, transparently, and efficiently, protect competition to innovate.