

April 11, 2022

Dear Assistant Attorney General Kanter,

and Commissioners Khan, Phillips, Slaughter, and Wilson:

Our names are Florian Ederer and Zaakir Tameez. Ederer is an Associate Professor of Economics at the Yale School of Management. Tameez is a student at Yale Law School.

We submit this comment to you regarding the Request for Information by the Federal Trade Commission and the Department of Justice Antitrust Division (collectively, the Agencies) on modernizing the merger guidelines.

Our comments are principally informed by Ederer's research on pharmaceutical acquisitions. In *Killer Acquisitions*, Ederer and his co-authors detailed development information on more than 16,000 drug projects originated by more than 4,000 companies in the past two-and-a-half decades.¹ The paper analyzed acquisition data for these drug projects to reveal that about 46 to 63 pharmaceutical acquisitions per year are what we term "killer acquisitions." Killer acquisitions occur whenever an incumbent firm acquires an innovative target and terminates the development of the target's innovations in order to preempt future competition. Killer acquisitions therefore lessen innovation and harm consumers through this channel. Effective merger control would identify, review, and block these acquisitions.

Killer acquisitions are not unique to pharmaceuticals; they can occur in any industry. The paper developed a theoretical model to explain how firms can be incentivized to acquire innovative start-ups simply to shut down their projects. Firms purchase entrants that, through increasing competition, are a threat to future profits and then shut down the newly-owned projects to protect their products from cannibalization. The disincentive to innovate can exist even when the new project is qualitatively superior to existing projects or products, when the acquisition creates development synergies, and when there are multiple potential acquirers. The paper's theoretical work aligns with the empirical findings of other scholars and the Agencies.²

Of particular concern is the paper's finding that the killer acquisitions from the sample disproportionately fall just below the HSR threshold and therefore hide the transaction from scrutiny by the Agencies. The fact that competitively problematic transactions are overwhelmingly reported to be of a size just below the HSR threshold indicates that the managers and attorneys of these corporations understand that these acquisitions are anticompetitive.

In this comment, we provide five recommendations to the Agencies on how to update the merger guidelines to address the challenge of killer acquisitions. Our recommendations are as follows:

1. Place more emphasis on the importance of innovation to consumer welfare and the benefits to consumers of competition among firms who compete to innovate successfully.
2. Emphasize that the importance of an innovation harm may not exactly correlate with the state of the economics toolkit needed to quantify it. While economic tools may be less precise in quantifying innovation in the but-for world than they are for price, this in no way indicates that innovation harms are less important.

¹ Colleen Cunningham, Florian Ederer & Song Ma, *Killer Acquisition*, 129 J. POL. ECON. 649 (2021).

² See generally, FED. TRADE COMM'N., NON-HSR REPORTED ACQUISITIONS BY SELECT TECHNOLOGY PLATFORMS, 2010–2019: AN FTC STUDY (2021); INVESTIGATION OF COMPETITION IN DIGITAL MKTS., MAJORITY STAFF OF THE SUBCOMM. ON ANTITRUST, COM., AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, 116TH CONG. app. at 406-450 (2020); JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY (MIT Press, 2014).

3. Consider a new section explaining the importance of competition from “nascent competitors.” By definition, a nascent competitor will not have a high market share and therefore traditional measurement tools like shares and HHIs will not be helpful. The Guidelines can lay out new standards for enforcement in this area.
4. Consider addressing how the agency will analyze retrospective and sub-HSR mergers. In a case of nascent competition, the acquired firm may be small and fall below the HSR threshold. But its role in future competition in the industry may be very important, and therefore the agencies may want to investigate the transaction after it has come to light, even if that post-dates the consummation of the merger. The guidelines should explain how a harmful transaction of this type will be remedied.
5. The paper’s results show that being required to file advance notice of a transaction has important deterrent effects. Therefore, the rules determining which transactions must be filed under HSR need to be made less flexible so they cannot be gamed by firms attempting to carry out anticompetitive mergers. The agencies may determine that a lower HSR threshold is advisable so that the agencies have the option of scrutinizing smaller deals in particularly problematic sectors. The sectors where smaller mergers need to be reviewed are those where nascent competition is most prevalent and most effective.

In the following pages, we briefly discuss each recommendation in more detail. We thank you for your consideration, and we welcome any follow-up from you or your staff.

Sincerely,

A handwritten signature in black ink, appearing to read "Florian Ederer", with a long horizontal flourish extending to the right.

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1. Place more emphasis on the importance of innovation to consumer welfare and the benefits to consumers of competition among firms who compete to innovate successfully.

The 2010 merger guidelines make clear that the loss of product choice due to killed innovation can "constitute a harm to customers over and above any effects on the price or quality of any given production."³ Despite this, however, there have been very few successful antitrust challenges brought with an innovation-based theory of harm.⁴ Thus, the Agencies should take a stronger and more prominent stance in the new guidelines that affirms the critical importance of innovation to consumer welfare.

One way to do this is by making it clear in the new guidelines that monopolistic firms already profit in the product market and risk losing those profits if a better or cheaper product is developed. Their incentive to eliminate innovation is directly correlated to its replacement effect: the likelihood that a new product will cannibalize the profits of the old product.

The paper demonstrates theoretically how this disincentive to innovate can exist even when the new project is qualitatively superior to existing projects or products, when the acquisition creates development synergies, and when there are multiple potential acquirers. The paper also shows this empirically. In pharmaceuticals, overlapping drug acquisitions are 23.4% less likely to have continued development activity compared to non-overlapping acquisitions.⁵

Innovation harms tend to increase prices, reduce quality, and reduce choice over a *dynamic* period of time. These harms can often be even worse than static, measurable harms. Thus, the Agencies cannot overemphasize enough in the new guidelines how important it is to protect innovation.

2. Emphasize that the importance of an innovation harm may not exactly correlate with the state of the economics toolkit needed to quantify it.

The Agencies should also emphasize that even though innovation harms can be severe, economic tools cannot quantify them with the same precision that may be expected for harms to price and quantity. Thus, the Agencies should make clear that the difficulties in quantifying innovation in no way indicates that innovation harms are less important. This may help the Agencies when pursuing antitrust cases with innovation theories of harm, as defendants are likely to argue these harms are too "speculative."⁶ While innovation has, by its nature, uncertain outcomes, the cost to consumers of no innovation, or less innovation, is extremely high.

In most industries, innovation is difficult to quantify. But even in industries where the level of innovation is somewhat measurable, such as pharmaceuticals, the *effect* of innovation in a market will remain difficult to predict. For example, the paper measured each pharmaceutical manufacturer's level of innovation with a dummy variable indicating whether its drug product had a development event in a given year (e.g., progress through the stages of clinical trial).⁷ But even if a drug product reaches final approval, there is significant uncertainty as to whether the drug will be successful in the market. Thus, economic

³ U.S. DEP'T OF JUST. & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 6.4, at 24 (2010).

⁴ One of the only cases of this nature is *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

⁵ Overlapping acquisition occurs when the target's drug project is in the same therapeutic class (TCs) and the same mechanism of action (MOAs) as the acquirer's drug project. Cunningham et al., *supra* note 1, at 652.

⁶ See, e.g., Respondents' Pretrial Brief at 9, *Illumina, Inc.*, F.T.C. No. 9401 (2021) ("While the FTC's allegations of harm are speculative and improbable, the procompetitive benefits arising from the reunion of Illumina and GRAIL are concrete and substantial.")

⁷ See Cunningham et al., *supra* note 1, at 651-652.

tools cannot quantify the final price, quantity, or quality of a potential drug with any precision – *even in situations where the level of innovation is somewhat measurable*.

Additionally, the level of innovation is inherently probabilistic. In pharmaceuticals, most drug products do not reach final approval. Thus, one cannot say with certainty that any given drug product terminated after a merger is evidence of a killer acquisition. However, one can still identify an *overall impact* of killer acquisition by noticing disproportionate levels of drug terminations by certain mergers when all other variables are accounted for.

These challenges to measuring innovation show that current econometric tools are limited. However, it does not indicate that innovation harms are less important to consumers than harms where economists have many econometric tools. To continue with the example of pharmaceuticals, drug innovation leads to pathbreaking discoveries and significant developments in quality of life. The consequences of terminated drug products that would have been successful in a but-for world are severe. And yet, quantifying these effects is challenging even when development activity can be documented. This should not be a barrier to enforcement, however, because the risk of false negatives by approving potential killer acquisitions is high. There is scholarship to suggest that the risk of false negatives is high in other industries too, particularly when econometric evidence is overemphasized.⁸

3. Consider a new section explaining the importance of competition from “nascent competitors.”

The merger guidelines use the term “maverick firms” to describe “firm[s] that plays a disruptive role in the market to the benefit of customers.”⁹ This term is appropriate for disruptive firms that pose an *actual* competitive threat. However, the Agencies currently lack a formal vocabulary to describe disruptive firms that pose a *potential* competitive threat. A nascent competitor “is a firm whose prospective innovation represents a serious future threat to an incumbent.”¹⁰

The Agencies should consider adding a new section that highlights the importance of nascent competition, the relative inapplicability of traditional measurement tools in this context, the range of other tools that the Agencies can use to detect nascent acquisitions, and legal presumptions to help challenge anticompetitive nascent acquisitions.

First, the new guidelines should acknowledge that the threat of new entrants plays a significant role in disciplining monopolists to continue to innovate in order to avoid Schumpeter’s gale of creative destruction.¹¹ Unfortunately, monopolists avoid being disciplined by acquiring and eliminating nascent competitors.

Second, the Agencies should note the need to use different tools to evaluate or measure the extent of nascent competition. By definition, nascent competitors lack any market share; therefore, tools like the Herfindahl-Hirschman Index (HHI) are not useful. Additionally, market definition tools, such as the Hypothetical Monopolist Test (HMT), rely on past and present market data, ignoring the future.

⁸ See, e.g., David H. Kaye, *Statistical Significance and the Burden of Persuasion*, 46 L. & CONTEMP. PROBS. 13 (1983); Daniel L. Rubinfeld, *Econometrics in the Courtroom*, 85 COLUM. L. REV. 1048 (1985); Phillip Johnson, *Statistical Significance and Statistical Error in Antitrust Analysis*, 81 ANTITRUST L. J. 641 (2016).

⁹ U.S. DEP’T OF JUST. & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES § 2.1.5, at 3-4 (2010).

¹⁰ C. Scott Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PA. L. REV. 1879, 1880 (2020).

¹¹ *Id.*

Third, the new guidelines should include a list of red flags that the Agencies would use to detect nascent acquisition deals. These red flags might include the following observations:

1. A small firm that is acquired for an unusually high value may be a nascent competitor.
2. A leading or monopolistic firm that acquires a small target firm may be acquiring a nascent competitor.
3. A pattern of acquisitions of smaller firms by a leading or monopolistic firm suggests a strategy to maintain market power in this way.

Finally, the Agencies should strengthen their enforcement power by re-instituting presumptions against leading firms that acquire nascent competitors. In its 1982 merger guidelines, the DOJ stated that it was “likely to challenge the merger of any firm with a market share of at least 1 percent with the leading firm in the market, provided that the leading firm has a market share that is at least 35 percent and is approximately twice as large as that of the second largest firm in the market.”¹² Restoring this presumption would discourage the most egregious killer acquisitions by the largest firm in a given market.

4. Create a new section in the guidelines that addresses retrospective investigations.

Recently, the Agencies have begun to challenge retrospective mergers.¹³ However, the guidelines provide no guidance on how the Agencies analyze retrospective and sub-HSR mergers. These new guidelines offer an opportunity for the Agencies to convey that they will not tolerate anticompetitive mergers simply because these mergers have already happened or were unreported. They should also explain how the Agencies will seek to remedy challenged retrospective mergers.

Anticompetitive mergers appear to often occur just below the reporting threshold. The paper examined pharmaceutical acquisition deals and compared them to the Hart-Scott-Rodino (HSR) review threshold. First, it documented that overlapping acquisition deals cluster below the threshold far more than non-overlapping deals (See Figure 3).¹⁴ Second, it compared the termination and launch rates of overlapping acquisitions around the HSR threshold. The paper found that the eventual product launch rate is much lower (1.8% vs. 9.1%) and the discontinuation rate is much higher (94.6% vs. 83.3%) for below-threshold acquisitions compared to above-threshold acquisitions.

Thus, many overlapping and killer acquisition deals in the pharmaceutical industry—and other industries¹⁵—do not get reported to the Agencies because they occur very slightly below the HSR threshold. This suggests that the managers and attorneys of these corporations understand that their acquisitions are anticompetitive.

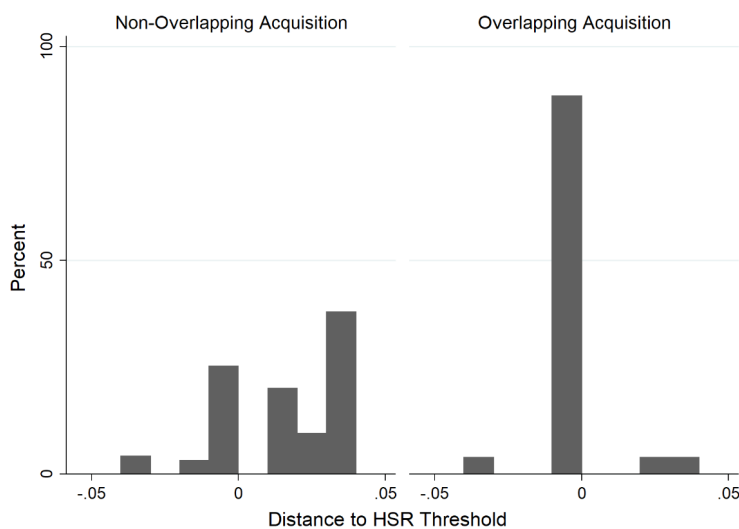
¹² U.S. DEP’T OF JUST. & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES § III.A.2, at 15 (1982).

¹³ See, e.g., Complaint, *United States v. Visa Inc.*, No. 3:20-cv-07810 (N.D. Cal. Nov. 5, 2020), ECF No. 1; Complaint, *In re. Edgewell Personal Care Co.*, Comm’n File No. 1910147 (F.T.C. Feb. 3, 2020); First Amended Complaint for Injunctive and Other Equitable Relief, *FTC v. Facebook Inc.*, No. 1:20-cv-03590 (D.D.C. Aug. 19, 2021), ECF No. 75.

¹⁴ Cunningham et al., *supra* note 1, at 685-686.

¹⁵ One recent study analyzed nearly 20,000 mergers and acquisitions (M&As) from 2001 to 2019 and found approximately 40% more M&As than expected bunching just below HSR thresholds. John D. Kepler, Vic Naiker & Christopher R. Stewart, *Stealth Acquisitions and Product Market Competition* (Social Science Research Network, Working Paper, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3733994.

Figure 3. Acquisition Size Distributions Around HSR Review Threshold



This graph plots the distribution of acquisition size near the Hart-Scott-Rodino review threshold. Acquisitions that fall into the $[-5\%, 5\%]$ around the threshold are kept, and the horizontal axis represents the distance to the review threshold (from -5 percent to 5 percent). The non-overlapping acquisitions are reported on the left panel, and overlapping acquisitions are reported on the right panel.

As a result, if the Agencies wish to clamp down on killer acquisitions, they will have to challenge more retrospective mergers and reform the HSR process. The Agencies should establish processes to discover, uncover, and investigate potentially problematic sub-HSR acquisitions. They should also explain how they will consider remedying challenged retrospective mergers, both in court and through negotiated consent decrees.

The combination of this guidance would enable the Agencies to uncover more anticompetitive sub-HSR mergers, discourage merging parties seeking to evade detection, and strengthen the Agency's hand in court when pursuing enforcement actions and remedies against these mergers.

5. Reform the HSR filing process and strongly encourage voluntary notification

Retrospective investigations, on their own, will not be enough to discourage killer acquisitions. Sub-HSR mergers are often conducted in secrecy and will be challenging to remedy after the fact. The Agencies also need to do whatever is possible to increase the number of mergers that get reported.

First, the Agencies should use their rulemaking power to limit discretion in HSR filings. The fact that killer acquisitions are overwhelmingly reported just short of the HSR threshold suggest that merging parties strategically design their merger deals to avoid reporting. My results suggest that being required to file advance notice of a transaction has important deterrent effects.¹⁶ Therefore, the rules determining which transactions must be filed under HSR need to be made less flexible so they cannot be gamed by firms attempting to carry out anticompetitive mergers.

Second, there also needs to be stronger consequences for merging parties that appear to design deals to avoid reporting. Currently, the Agencies follow HSR Rule 801.90, which allows the Agencies to

¹⁶ See *supra* Figure 3.

look to the substance of a transaction when the deal appears to have been formed to avoid compliance.¹⁷ The Agencies should go further by establishing a new rule that negotiating mergers to avoid notification will be treated as evidence of anticompetitive intent and be treated as presumptively anticompetitive. This new rule would send a strong signal to merging parties about the risks of trying to evade detection.

Third, while the Agencies cannot legally change the HSR filing threshold, they are not powerless to do something about it. The Agencies should strongly encourage voluntary notification for sub-HSR mergers by setting a new, lower threshold for notification that is included in the guidelines. The guidelines could suggest that merging parties who do not participate in this voluntary notification scheme will be presumptively treated as acting anticompetitively.

Finally, the Agencies should publicly advocate for Congress to lower the HSR threshold.

¹⁷ 16 C.F.R. § 801.90 (2022).