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Acquisitions by Dominant Firms

*“Kill Zones! Killer Acquisitions!
Anticompetitive Appropriation!: A
Public Policy Perspective”*

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Kill Zones, Killer Acquisitions & Anticompetitive Appropriation

The relevant claims boil down to three related, but distinct, forms of alleged anticompetitive behavior that reduce innovation (even though they are often conflated in public debate):

- 1. Large incumbents have become so dominant and aggressive in their primary markets (including through acquisitions and appropriation) that venture capitalists decline to fund startups that compete head-on.**
- 2. Large incumbents acquire nascent, potential competitors and shut down their businesses before they become competitive threats.**
- 3. Large incumbents, particularly those that operate platforms used by third parties, leverage their existing networks (and access to platform data) to identify and “appropriate” the most profitable complementors, either through internal development (copying) or external acquisition (merger).**

Potential Competition

If we think there is a pervasive problem with large tech firms routinely purchasing future rivals, then we also must think there is *routine entry* in these digital markets — thus undermining a durable market power assumption.

- E.g., if Instagram's product in 2012 represented a future/potential constraint on Facebook, then LinkedIn, Pinterest, Snapchat, Twitter, TikTok, et al. must also be considered actual or potential competitors to Facebook.

Killing a potential *competitor* is not the same as killing potential *competition*.

- For threat of competition to restrain an incumbent, not even a single actual firm is required. For removal of potential competition to enable incumbent, removal of a single firm is not enough.

And it is by no means clear that killing one potential competitor even reduces potential competition

- As Lemley & McCreedy lament, the prospect of acquisition by an incumbent is an important spur to startup investment and, presumably, to startup founders, as well.
- By purchasing a few potential competitors, incumbents may sow the seeds of their own demise by encouraging a flood of new entrants for each one they purchase.

Potential Competition: Error Costs

Now imagine shifting that burden onto regulators.

- If anticompetitive mergers are such a tiny percentage of total mergers—and identifying them *a priori* is difficult—then a precautionary principle strategy that results in many false positives for enforcement would likely not merit the benefits from blocking one or two anticompetitive mergers.
- Could anyone—least of all a non-expert, outsider regulator—really have accurately predicted in 2006 that YouTube could be a competitive adjunct to General Search?
- Furthermore, but for Google and Facebook’s investments in YouTube and Instagram, it is far from clear that a mere “video-hosting service” or “photo-sharing app” would have grown into the competitor that advocates assume.

Killer Acquisitions – Cunningham, et al. (2019)

Some findings seem concerning: “[W]e find that projects acquired by an incumbent with an overlapping drug are 23.4 percent less likely to have continued development activity compared to drugs acquired by non-overlapping incumbents.”

However, the study’s industry-specific methodology means it is not clearly a useful guide to understand such acquisitions in other areas, especially digital platforms.

- Drug development is highly regulated and documented and contains set milestones. It’s often straightforward to identify substitute products. **Not so for digital markets where products are highly differentiated. Neither acquirers nor regulators can be as readily presumed able to identify potential competitors.**
- Also, killer acquisition is “not the typical scenario” (Crémer, et al Report (2019)) in tech platforms; integration is the norm.

Also, these “killer acquisitions” represent only a small fraction – 5.3 to 7.4 percent – of the pharmaceutical acquisitions studied.

- And which companies are in that six percent, ex ante?

And we don’t know direction of causation:

- Was R&D discontinued because a more knowledgeable purchaser made a more accurate prediction?

Missing value of drugs with and without acquisition

Only a fraction of even the small share of drugs that make it to FDA approval is commercially successful (and, obviously, to varying degrees).

If true for all drugs equally, we shouldn't see differences between overlapping and non-overlapping acquirers.

- But there are seemingly plausible reasons to think that the drugs that are acquired by competitors with overlapping drugs might be more likely to fail.

Missing the likelihood that a drug will make it to market — let alone be successful in the market — absent an acquisition, and the likelihood of commercialization and success for the drugs acquired by overlapping acquirers but not killed.

Maybe overlapping acquirers' information advantage enables them to better evaluate the likelihood of commercial success post-acquisition

- Resulting in both quicker terminations but also, on net, greater success with non-terminated drugs.

Optimal investment incentives

Killer acquisitions may be valuable tools for redirecting R&D resources to higher value projects, and, by the same token, for mitigating the possible incentive for startup firms (and the industry as a whole) to *over-invest* in R&D activity.

- Incumbents can presumably better afford failure, whereas startups may be more inclined to over-invest to salvage what may be the firm's only product.
- The financial need to make this decision may come for the startup before gaining the optimal information to judge the likely success of the project.
- Incumbents may acquire particularly risky projects precisely with the intention to invest some relatively small amount to take them to the optimal information stage. (Hence development is *also* less likely in non-overlapping acquisitions).
- Plausibly the ability to make these decisions effectively is improved in firms that have overlapping products and thus better information about the project in question.

Optimal investment incentives

Cunningham et al:

- “We model acquisitions that occur when the innovative target firm’s project is still under development, and therefore further development is necessary and costly and the ultimate project success is uncertain. **An incumbent acquirer has weaker incentives to continue development than an entrepreneur if the new project overlaps with (i.e., substitutes for) a product or project in the incumbent’s portfolio.**”

But an incumbent also has weaker incentives to continue development than an entrepreneur if it knows better than the entrepreneur that the project is unlikely to succeed.

Lemley & McCreary (2020)

IPOs have grown scarce: **“In short, high-tech startups must increasingly sell out in order to succeed”**

Why is this a problem?

- **“It’s not surprising, then, that the exit strategy for most startups is acquisition, and that the most likely acquirer is the very incumbent the startup’s technology might otherwise challenge. Given that, it also shouldn’t be a surprise that many of those technologies are quietly shut down a few years after acquisition.**
- **“The result is that a culture of vibrant startups that should drive Schumpeterian competition by leapfrogging less nimble incumbents has been coopted by the structure of the VC market.”**

What should we do?

- While an outright ban on mergers would threaten the VC industry and therefore startups, a targeted ban on acquisitions of thriving companies by dominant firms in the same or adjacent markets might be welfare-enhancing.

Some issues with the assumptions

SCP Presumptions: “Stay in business rather than sell out”

Neglects/dismisses counterfactual

- Would company continue without acquisition?
- Would company have been funded in the first place?
- Would standalone company deliver more welfare?

Assumes concentration is bad

- This isn't the point of the paper, but it is key underlying assumption
- Arguments aren't limited to VC context; they apply to all mergers

What does the but-for world look like?

How do we know that acquisitions aren't a better solution than the alternative?

- VC funders aren't likely the best managers long-term. They specialize. So a VC would exit regardless. Whether the company continues as a standalone operation or as a part of another company hardly seems so important to that.
- Specialization is important: Acquisitions enable *technology* development separately from *business* development
- More rapid adoption and broader deployment
 - Google/Waze
- Related: More effective, outsourced form of R&D for large company
- Incumbent firm activity as *pathway*, rather than barrier, to entry

Relationship between IPOs and VC

In recent years, about 60 percent of all IPOs were VC-backed companies.

Public companies with VC backing employ four million people and account for one-fifth of the market capitalization of US public companies and 44% of the R&D spending of US public companies.

Changing competition standards with the intention of reducing the number of tech acquisitions would therefore risk disabling the mechanism that currently provides roughly two-thirds of the liquidity for startups and one-fifth of GDP.

- Perhaps some other set of market conditions might provide a more optimal set of incentives for entrepreneurs, but it certainly isn't clear, and disrupting the status quo could impose significant costs.

Kamepalli, Rajan & Zingales (2019)

The model seems to be based on a fundamentally flawed assumption

- “Consider the decision of techies. They care primarily about the fundamental technical quality of the platform. However, they also engage deeply in any technology, so they have high switching costs (of learning every minor aspect of any platform they adopt).
- “If techies expect two platforms to merge, they will be reluctant to pay the switching costs and adopt the new platform early on, unless the new platform significantly outperforms the incumbent one.
- “After all, they know that if the entering platform’s technology is a net improvement over the existing technology, it will be adopted by the incumbent after merger, with new features melded with old features so that the techies’ adjustment costs are minimized.
- “Thus, the prospect of a merger will dissuade many techies from trying the new technology. By staying with the incumbent, however, they reduce the stand-alone value of the entering platform.”

Kamepalli, Rajan & Zingales (2019)

First, techies have *low* switching costs to begin with, given greater facility with technology, and may even see them as negative.

Second, the “sunk switching cost” notion seems inapplicable here.

- If the new technology is better and there is a merger, none of the costs will be wasted because, by assumption in the model, the new tech will be adopted by the incumbent.
- If there is no merger there could be a loss, assuming the tech disappears
 - (another common alternative though is that it remains and is used by the techies only who know its real value but don't require the broader network effects).
 - But then the whole mechanism of the model and the issue of the paper is removed:
- If it is only when the incumbent doesn't buy the new entrant that there is a problem, then there's nothing to talk about — except finding ways to incentivize *more* mergers.

Kamepalli, Rajan & Zingales (2019)

This seems unlikely:

- “For example, the more an incumbent can freely copy the technological innovations of new entrants, the worse the incentives of early adopters to switch to a new entrant will be.”

For same reason as above, the prospect that any investment in learning new technology on a new platform will be usable on the old if/when it copies the new entrant should *decrease* the cost of switching

- NB: There may be an implicit assumption in the paper of single-homing. That could change the calculus. But it would also be entirely inapplicable to the tech platform setting at issue where multi-homing (especially by techies) is the norm.
- “In our setting, if the incumbent can freely copy the new features of an entrant, the new entrant will be left with insignificant profits since no one will switch.”

It is rarely the innovation per se that determines the value of an innovation; it is how it is implemented. Not only can that mean that a new entrant might be able to persist even if an innovation is copied, but by the same token it means that an incumbent may not be able to extract as much value from simply copying an innovation.

Kamepalli, Rajan & Zingales (2019)

“If there is a policy conclusion to be drawn from our model, it is this: interoperability across platforms helps resolve many of the distortions in digital platforms because it reduces the incumbency advantage from network externalities and switching costs.”

Seems not self-evident.

- Surely it's better than alternatives like structural separation. But it still assumes a lot, including for example that mandated interoperability won't diminish the attributes of a platform that are attractive in the first place.
- At the very least, interop would likely constrain the types and forms of data collected and a platform's ability to change them over time.

“The new European data protection rule – also known as GDPR – limits the use of these data by incumbents, unless they have asked explicit authorization from the customers. **In so doing, it reduces the incumbent's advantage somewhat, promoting innovation.** Of course, it also means that entrants will have to ask each customer for permission to use their data, increasing their costs of fine-tuning also.”

Hamstringing the functionality of an incumbent might promote entry, but it is by no means clear it would increase innovation or consumer welfare on net.

Maybe the right solution is stronger IP

The problem is incentives to innovate:

- “[T]he more an incumbent can freely copy the technological innovations of new entrants, the worse the incentives of early adopters to switch to a new entrant will be. These reduced incentives will lower the stand-alone valuation of new entrants and thus lower the return to innovation.... **[T]he ability to copy freely an innovation always reduces the incentives to invest.**”

So, perhaps what we should be focused on is better patent/copyright system design.

- Most relevant to appropriation, but also mergers because appropriation may be the outside option.

Here and elsewhere: Selection bias?

- We look at mergers that happen and appropriations that happen, but these are the situations where incumbent, by definition, gains advantage.
- **But the vast majority of entrants aren't bought by/appropriated by incumbents.**

Bryan & Hovenkamp (2020)

Compulsory licensing to encourage startups to invest in laggard-promoting technology, rather than incumbent-promoting technology.

- Here as elsewhere: what explains the pattern of acquisitions we see? Incumbents don't buy all challenger technology/firms.
- As elsewhere, consumer welfare benefits of improved incumbent are insufficiently accounted for. This is certainly true in static model; question likely relative magnitudes in dynamic.
- Information problems seem significant:
 - Incumbent omniscience can't be presumed
 - Nor challenger omniscience re which technologies are likely to be valuable to incumbent
 - Nor even which industry (and which dominant company) the startup is most relevant to
 - Nor especially court/regulator omniscience
- As Bryan & Hovenkamp recognize, the administrative costs (of compulsory license as well as preemptive blocking) are significant
- Unclear how ability to appropriate without acquisition affects analysis. Where that is the norm, what are startup incentives? IP regime, again, seems more important.

Anticompetitive Appropriation / Self-preferencing

Claim is that big tech platforms harm competition by favoring their own content over that of their complementors.

- According to this line of argument, complementors are “at the mercy” of tech platforms.

By discriminating in favor of their own content and against independent “edge providers,” tech platforms cause “the rewards for edge innovation [to be] dampened by runaway appropriation,” leading to “dismal” prospects “for independents in the internet economy—and edge innovation generally.”

Proposals to ban vertical discrimination:

- Lina Khan, Antitrust Paradox:
 - “Adopting this prophylactic approach would mean banning a dominant firm from entering any market that it already serves as a platform—in other words, from competing directly with the businesses that depend on it.”

But... why?

Anticompetitive Appropriation / Self-preferencing

The notion that platform entry into competition with edge providers is harmful to innovation is entirely speculative. And contrary to a range of studies showing that the opposite is likely true.

- **Li and Agarwal (2017)** Facebook's integration of Instagram led to a significant increase in user demand for Instagram—and for the entire category of photography apps. The integration of Instagram increased consumer awareness of photography apps on Facebook, which benefited independent developers, as well as Facebook.
- **Foerderer, et al. (2018)** Google's 2015 entry into the market for photography apps on Android created additional user attention and demand for such apps generally. This had a positive spillover effect on complementors. Following Google's entry, complementors were more likely to innovate their photography apps and to release new apps in other categories, as well.
- **Cennamo, et al. (2018)** Video games offered by console firms often become blockbusters and expand the installed base of the consoles. As a result, these games increase the potential for all independent game developers to profit from their games, even in the face of competition from first-party games.
- **Zhu and Liu (2018)** is held up as demonstrating harm from Amazon's competition with third-party sellers on its platform, but its findings are actually far from clear-cut. As one of the authors notes elsewhere: “[I]f Amazon's entries attract more consumers, the expanded customer base could incentivize more third-party sellers to join the platform. As a result, the long-term effects for consumers of Amazon's entry are not clear.”

Anticompetitive Appropriation / Self-preferencing

Edge providers will invest less in their businesses if their returns will be diminished by platform expropriation...

- But the massive size and enormous success of such platforms should allay any fears that this is actually happening.
- The number of apps on Apple's App Store has grown from some 800 in July 2008 to over 2 million in January 2017, for example.
- Why would so many complementors continue to develop businesses in reliance on platforms like Apple's if doing so entails a substantial risk of foreclosure and financial ruin?

A complementor that makes itself dependent upon a platform for distribution of its content does take a risk....

- Although it may benefit from greater access to users, it places itself at the mercy of the other—or at least faces great difficulty (and great cost) adapting to unanticipated platform changes over which it has no control.
- But the risk may be a calculated one.

Google Shopping

The European Commission asserts that Google's prioritization of its own shopping results harms competition because it reduces traffic to comparison shopping sites, potentially foreclosing them from minimum viable scale and causing them to under-innovate.

- The decision does not identify actual consumer harm; it infers it from the reduction in traffic to comparison shopping sites, constituting an alleged impairment of an “effective competition structure.”

But the fact that Google creates an opportunity for complementors to rely upon it doesn't mean that a firm's decision to do so—and to do so without a viable contingency plan—makes good business sense.

The problem with the superficial analysis that assumes harm from the diminution of traffic to independent competitors is this:

- Protecting complementors from the inherent risk in a business model in which they are entirely dependent upon another company with which they have no contractual relationship is at least as likely to encourage excessive risk taking and inefficient overinvestment as it is to ensure that investment and innovation aren't too low.

And that any given complementor succeeded in the past is no reason to assume it “should” succeed in the future.

- Nor is it any reason to assume that, freed from the constraints of platform self-preferencing, it would provide any measure of innovation in the future.

Platform vs edge innovation

Concerns about platform appropriation of edge innovations (or other advantages) discount to zero the benefits of platform innovation.

- Appropriation of edge innovation and its incorporation into the platform greatly enhances the innovation's value by sharing it more broadly, ensuring its coherence with the platform, incentivizing optimal marketing and promotion, and the like.

Consumers benefit when platforms innovate, at least as much as they benefit from edge innovation.

- And when a platform implements a new technology or business process, those benefits are conferred on all platform users; when an edge company does so the benefits are conferred only on the subset of platform users who interact with the particular edge provider.
- Facebook/Snapchat

