VERTICAL INTEGRATION AND THE MARKET POWER CRISIS

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We define "market power" as the ability to skew market outcomes in one's own interest, without creating value or serving the public good.

INTRODUCTION

The US economy suffers from a market power problem that pervades many sectors, including health care, telecommunications, and technology. As firms become more powerful, they are able to profit by taking advantage of other economic stakeholders rather than growing the overall economic pie. Competition as America once knew it—firms working to provide better goods and services at lower prices in order to win over customers—is increasingly a thing of the past. Instead, corporations today attempt to secure such large stakes in their given market, and to exclude potential entry, so that they do not need to compete. This objective is made evident by a wave of mergers and acquisitions, which have largely gone unchecked by enforcers. Even when antitrust enforcers do challenge mergers, those challenges are often settled with divestitures or behavioral remedies that do not mitigate the anticompetitive effect of the merger. And in cases where enforcers have tried to take the initiative to extend and reinforce merger enforcement, the federal judiciary has brushed them back.

Merger enforcement has become particularly negligent regarding a certain type of merger where a firm acquires its supplier or distributor, a so-called "vertical" merger between firms at different stages of the supply chain. The cumulative result of the lax enforcement response to vertical mergers is ultimately to legalize business models that are highly profitable because they suppress competition. They permit exclusion or discrimination that cannot easily be challenged by new entrants. Competitors, in turn, have to vertically or horizontally integrate themselves in order to have a chance, and this self-perpetuating cycle ends up victimizing less powerful stakeholders throughout the supply chain.

The Department of Justice (DOJ)'s failed challenge to the AT&T-Time Warner merger—the government's first attempt to block a vertical merger in over 40 years—sets a dangerous precedent in further immunizing vertical integration from antitrust liability. The challenge followed decades of vertical and horizontal consolidation in telecoms, to the point where the sector now consists of an oligopoly of vertically integrated firms (some of them operating across technologies, such as wireless and broadband). This "walled-garden" business model has harmed consumers, independent content creators, and innovation. Furthermore, it has risked concentrating control over the public sphere into private hands, where it can be manipulated by powerful profit-seeking corporations that decide who sees what content and how quickly—choices that prioritize their own interests over the public's.

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In this brief, we will define and explore the threat of vertical integration, revisit historical enforcement trends that set the stage for our current crisis with respect to the proliferation of vertically integrated business models and walled gardens that dominate many sectors, and provide guidance as to how antitrust legislation and enforcement must change going forward. While the increase in horizontal concentration across many—nearly all—sectors and industries has garnered wide public attention and sparked interest from policymakers, the threat vertical integration poses to the public has been relatively downplayed since the effect on competition is less obvious. But that's not because vertical consolidation and vertical mergers are, in fact, more benign in their effects. If anything, the reverse is true.

WHAT IS VERTICAL INTEGRATION?

It is important to understand what vertical integration is and how it differs from a classic monopoly. Traditional monopolies are achieved through horizontal integration, when one firm merges with its direct competitor, creating a larger firm that controls a greater portion of the market. Vertical integration describes a circumstance when a single firm seeks to control more than one stage in the supply chain. For example, when a single firm owns the supply of raw materials, the production facilities that turn those materials into the final product, and the store or online platform that sells the final product, that firm is vertically integrated.

Most recently, AT&T—a telecommunications service provider through broadband and mobile networks with paid subscribers—acquired Time Warner—a distributor of content created by its subsidiaries like HBO and Warner Brothers. The firms are now vertically integrated because a single entity owns two points on the supply chain: both the pipes and the product flowing through those pipes.

> ***Vertical integration describes a circumstance when a single firm seeks to control more than one stage in the supply chain.***

When two firms that produce complementary goods merge, this can also be considered vertical integration. Facebook's acquisitions of Instagram and WhatsApp are examples of this. Both acquisition targets provide services that are complementary with Facebook's core social networking business: photo-sharing and peer-to-peer messaging. In such cases, bringing together services that users (and advertisers) consider to enhance one another under one roof achieves the same accretion of market power as does an upstream-downstream merger like AT&T-Time Warner

The result of vertical integration is to create an entity with immense market power, because either consumers or suppliers have no other route to either obtaining what they want or to getting their products to market than to go through a powerful intermediary or gatekeeper. The mechanisms of market power at play in vertically integrated business models are foreclosure, exclusion, and discrimination.

HOW IS VERTICAL INTEGRATION HARMFUL TO COMPETITION?

Vertical integration can reduce competition primarily through two ways. First, an integrated firm can leverage its monopoly power at one stage in the supply chain to extend it into another. For example, a distributor like AT&T can favor its affiliated content over unaffiliated content, which means that its affiliates would be in a position to dominate the content that actually reaches viewers without providing higher quality or cheaper products. Another version of this is for AT&T to withhold its affiliated content from its distributor rivals, making them weaker competitors and causing their subscribers to switch to AT&T. This approach uses anticompetitive practices, such as foreclosure (when a firm denies one of its horizontal competitors access to either an affiliated supplier or buyer critical for its success) or discrimination (when competitors are only offered access to the affiliate on disadvantageous terms, or, equivalently, the affiliate gets access to AT&T's subscribers on advantageous terms), to impede competition based on lawfully providing quality goods and services, also known as "competition on the merits." At its most severe, discrimination becomes exclusion; when AT&T's customers are totally denied access to unaffiliated content. Vertical integration may also encourage distributors to integrate themselves, either horizontally (to obtain bargaining leverage to counter the leverage possessed by the vertically integrated firm) or vertically, thus turning the sector into a series of "walled gardens," in which providers have control over content and restrict access to outsiders.

For example, in its AT&T merger challenge, the DOJ pointed to the fact that vertically integrated programmers "can much more credibly threaten to withhold programming from rival [distributors]" and can "use such threats to demand higher prices and more favorable terms." The DOJ argued that AT&T would be able to leverage its market power to force its rivals to pay hundreds of millions of dollars more per year for Time Warner's content. The complaint states "the proposed merger would result in fewer innovative offerings and higher bills for American families" (DOJ 2017).

Second, a firm with monopoly power can also maintain that power by acquiring a would-be competitor, thus preventing horizontal competition before it can occur. For example, when Facebook purchased the mobile photo-sharing app Instagram, it was likely motivated by the threat that Instagram would become the dominant social network on mobile platforms. Instagram could then have leveraged its mobile photo-sharing user base to undermine Facebook's established position in desktop social networking, which was created before mobile technology had achieved universal consumer penetration.

When firms vertically integrate in this way, potential entrants must compete at more than one level of the supply chain or else fail at any single stage. This is called "two-stage entry" and can keep new competitors out of the market due to heightened costs of entry, thus allowing the merged firm to maintain its market power. Even when the targeted acquisition is not itself a threat to enter as a horizontal competitor to the acquiring firm, the acquisition may be motivated by reducing entry into the acquirer's line of business by a third party—by denying any would-be entrant a channel for distribution. Raising the cost of entry for new market participants is anticompetitive and stunts innovation. The DOJ also highlighted this threat in its AT&T complaint, arguing that it would be more difficult for emerging online content platforms to compete with the vertically integrated AT&T-Time Warner.

Notwithstanding the potential for harm, the government's case did not sway the district court judge. He found that the merger did not violate antitrust law, and the appellate court agreed, ending the DOJ's challenge to the merger.

HISTORICAL BACKGROUND

During the 1940s and 1950s, US antitrust policy took the potential harms of vertical integration seriously as a cause of durable monopoly power. The courts sided with the DOJ against vertically integrated business models in monopolization cases like *US v Yellow Cab Co.*, *US v Paramount Pictures, Inc.*, *US v. National City Lines, Inc.*, and *US v. Columbia Steel Co*.[1] The Paramount case is particularly similar to the AT&T-Time Warner merger challenge as it also involved vertically integrated content creators and distributors.

In 1948, the Supreme Court agreed with a lower court that Paramount, along with four other major Hollywood movie studios, was in violation of the Sherman Antitrust Act. They held that the studios "conspired to and did restrain and monopolize interstate trade" in most of the larger cities of the country. The court also found that horizontal and vertical price-fixing conspiracies existed between all the defendants. Through their outright ownership or licensing with theaters, the studios were able to charge uniform minimum admission prices for movies. They also participated heavily in block-booking, where a studio sells exhibition rights for several movies in a package, thus forcing theaters to show them all rather than being able to choose which from among a production studio's films to show locally.

These five movie studios were able to dominate their market because the movie industry was heavily vertically integrated at the time. The Hollywood Studio System refers to the period from the 1920s to the late 1940s/early 1950s in which studios had all forms of creative personnel (actors, directors, writers, etc.) under long-term contracts and had ownership or effective control over the exhibition of movies. The studios leveraged their market power by outright buying theatres or using restrictive licensing agreements in many cities. By doing so, they could foreclose other studios from showing their films in certain regions of the country or in having greater bargaining power vis-à-vis independent studios. This use of market power parallels AT&T's ability to foreclose other content creators by favoring its own Time Warner content, following that vertical merger.

The studios also maintained their market power by creating a multi-level barrier to entry for potential new studios. By forcing creative personnel to sign long-term exclusive contracts, the top five studios were able to keep the most talented in the industry from working elsewhere. A potential new studio would have a hard time finding talent that was not already tied to existing studios. Even after producing a film, the new studio would have no customer base, since theaters were exclusive to existing studios either by contract or through outright ownership. Block-booking meant that there was little or no opportunity to show films

[1] The DOJ actually lost its case against US Steel's acquisition of Columbia Steel. This, however, sparked Congress to pass the Celler-Kefauver Act of 1950, which clarified that anticompetitive vertical mergers are considered illegal under Section 7 of the Clayton Act, and thereafter the courts recognized that it was Congress's intent to prohibit vertical mergers.

produced by independents. It was this last practice that triggered the greatest concern in the antitrust case, but the whole of the Studio System was sustained jointly by each of these anticompetitive practices operating at different levels of the supply chain.

Similarly, AT&T has the ability to maintain market power by denying new content distributors access to Time Warner's content or by providing faster network speeds for its own streaming service over that of unaffiliated content—so-called "zero rating."

The *Paramount* case ended with a consent decree—a list of conditions imposed by antitrust enforcers and agreed by defendants—whereby the studios agreed to divest themselves of their theatre ownership and not seek to control exhibition in the future. It also banned the practices of block-booking and minimum admission prices. The decree, as well as the unionization of creative talent in Hollywood, put an end to the Studio System. In the 1950s, independent studios achieved a 50 percent market share in movie production, and some Hollywood stars and directors were able to found their own production companies to compete with the incumbents whose power had been reduced by the Paramount Decree.

As of 2018, the DOJ is reviewing that consent decree and deciding if it should be modified or terminated. In announcing the review, the DOJ stated:

"Since the district court entered the Paramount Decrees, the motion picture industry has undergone considerable change. None of the Paramount defendants own a significant number of movie theatres. Additionally, unlike [70] years ago, most metropolitan areas today have more than one movie theatre" (DOJ 2018).

The DOJ outlines the above argument as if it is a reason for no longer needing the consent decree. However, this should instead be taken as proof that the decrees worked and have shaped the industry in such a way that it remains competitive, at least in the respect of movie production and distribution. (The fact that horizontal consolidation has been permitted at both segments of the industry's supply chain, and thus facilitated vertical integration in other dissemination technologies, is another matter, which will be discussed below.) The DOJ also invokes technological changes to content distribution to further question the relevance of the decrees. Instead, the agency should use the decree as a model for successful regulation of new forms of content creation, to prevent them from being monopolized and controlled in the same way Hollywood production was under the Studio System. In fact, due to more recent lax antitrust enforcement, the Studio System has been mostly re-created through control of other distribution technologies, to the detriment of creative talent and innovation in content production.[2]

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[2] See, for example: "How the Major Hollywood Talent Agencies Put Their Interests Ahead of Their Clients' Interests" (Writers Guid of America West, 2019), https://www.thewrap.com/wp-content/uploads/2019/03/No-Conflict-No-Interest.pdf.

HOW DID WE GET HERE? MONOPOLIZATION ENFORCEMENT LEADS TO VERTICAL MERGER ENFORCEMENT

Following the Supreme Court cases of the 1940s, including *Paramount*, the agencies increasingly sought to prevent the formation of vertically integrated monopolies in the first place instead of breaking them up after they'd formed. That posture was encouraged and strengthened by the Celler-Kefauver Act of 1950. Among many other cases, that prioritization of ex-ante merger enforcement over ex-post monopolization enforcement led to the 1962 case of *Brown Shoe Co., Inc. v. United States*, the most aggressive stance that antitrust policy has taken to date against vertical integration.

Brown Shoe was a leading manufacturer of men's, women's, and children's shoes in the country, as well as a retailer with over 1,230 owned, operated, or controlled retail outlets, thus making it the third largest seller of shoes in the country. Kinney Company was the eighth-largest shoe retailer, with over 350 outlets, and also a shoe manufacturer. Both firms were vertically integrated prior to the merger, and Brown Shoe even sold its shoes in Kinney-owned stores. Brown Shoe sought to expand out of the urban markets it already dominated by acquiring Kinney Company to penetrate suburban markets (US Supreme Court 1962).

Brown's president testified that following the acquisition of Kinney, Brown would use its ownership of Kinney to sell Brown shoes in its Kinney stores. In response, the DOJ argued that Brown's acquisition of Kinney raised foreclosure concerns. The DOJ, and ultimately the Supreme Court, took the company president's statement as analogous to exclusion, implying that Brown intended to allow *only* Brown shoes in Kinney stores and keep its competitors out. The court agreed with the DOJ in interpreting this evidence as reflecting exclusionary leveraging intent and thus also agreed that the merger was illegal because it would "tend to create a monopoly" in the language of the Clayton Act.

Brown Shoe marks the height of antitrust enforcement against vertical integration, and, to critics of the decision, the case came to symbolize everything that supposedly went wrong with mid-century, post-New-Deal antitrust. Acquisitions intended to open up new markets were interpreted as exclusionary. Competitors looking to expand and grow in new markets were being wrongfully punished for and prevented from doing so. All of this fueled the backlash that began to take shape in the 1950s and gave rise to a pendulum swing in federal policy starting in the late 1970s.

THE FLAWED ASSUMPTIONS OF THE CHICAGO SCHOOL

During the 1950s, a group of academics began to formulate a critique of the 1940s-era monopolization cases that targeted vertical integration as a business model. Since they were concentrated at the University of Chicago, these scholars are known as the "Chicago School" in the antitrust field.

The way we regulate (or fail to regulate) monopolies today depends on two significant (though deeply flawed) assumptions promoted by the Chicago School:

1. Large and powerful firms become large and powerful due to their superior efficiency; and

2. Barriers to entry are fleeting and pose no significant threat to competition in the long run. Any attempt at deploying market power to erect a barrier or gain an unfair advantage will be short-lived, as the resulting profits will attract entrants to compete them away.

Together, these two assumptions motivate a benign view of market power: The market disciplines the inefficiencies that durable market power creates, and if we do observe long-lasting dominance and profitability, that must instead be because the incumbent is more efficient than its competitors or would-be competitors.

For example, a vertically integrated supplier that attempted to use its market power to constrain output so as to increase the final price of its goods would be disciplined by actual or potential entry from competitors. If a distributor favored its affiliated manufacturer (e.g., had Kinney shoe stores stocked only Brown shoes) over more-efficient or higher-quality suppliers, then "entrants would arrive in sky-darkening swarms" to take advantage of that inefficiency and provide the better shoes to eager customers, according to the Chicago School's most prominent text, *The Antitrust Paradox* by Robert Bork.

Together these two assumptions yield the conclusion if any supplier, distributor, or competitor cannot break into a given market, the firm must be less efficient and simply unable to compete. Further, restricting or breaking up any dominant firm would simply punish the most profitable and effective firms for their success. That's why Bork called antitrust a "paradox;" he thought it was preventing the most efficient firms from competing to gain market share "on the merits."

These two assumptions have been used to discredit the economic basis for activist antitrust enforcement in general. There are specific, and derivative, economic theories that pertain to vertical merger policy in particular: the elimination of double marginalization (EDM) and the single monopoly profit theorem.

EDM applies when a monopolist in one segment of the supply chain merges with another monopolist up- or downstream. The idea is then that prior to the merger, each company charges a markup above its cost of production. For the downstream monopolist, its cost of production includes the upstream monopolist's markup. Therefore, in the pre-merger scenario, effectively two margins are charged to the consumer.

Post-merger, so the argument goes, the single two-stage monopolist will continue to charge a markup to the consumer, but that markup will be less than the two markups charged before the merger. The reason is that the upstream segment will have no incentive to charge the downstream segment a markup. The single margin charged by the combined entity will be less than the sum of its parts. Therefore, EDM is a theory that posits that vertical mergers between two monopolists will be pro-competitive, reducing the price to the final consumer and increasing the quantity sold in the final output market above what it was ex ante.

The single monopoly profit theorem pertains to a merger between a monopolist at one segment of the supply chain and an up- or downstream firm that lacks market power in its segment. The idea is that the monopolist is already maximizing its profit and charging a markup in its segment. There is no further markup to be earned in the merged segment through the acquisition. This is derivative of the idea that barriers to entry are minimal to nonexistent, because in that case, the monopolist (which, following this set of assumptions, would be presumed to have earned that dominant position "on the merits") would not be able to use its acquisition to extend its monopoly to an adjacent segment. If it tried to do so, through discrimination, exclusion, predatory pricing, or the like, then new entrants would spring up to compete away any monopoly rents.

Thus, between EDM and the single monopoly profit theorem, vertical mergers between monopolists and between a monopolist and a competitive firm are all assumed to be pro-competitive. Vertical mergers between competitive firms are assumed to raise no competition concerns. Therefore, between the two theories, the Chicago School had a comprehensive argument for presumptive legality for all vertical mergers.

FLAWED ASSUMPTIONS AND EFFICIENCY CLAIMS DO NOT HOLD IN PRACTICE

The accuracy of the core Chicago School assumptions about how market power is achieved and preserved falters when tested in the real world.

First, any history of the means by which actual, as opposed to theoretical, dominant firms achieve their power puts the lie to the assumption that variation in the efficiency of production drives firm heterogeneity. For example, the major American railroad systems were the first targets of federal (and state) monopolization enforcement, and economists defended them, both then and now, on the grounds that they'd achieved their dominance through technological efficiency, at least at first. But that wasn't and isn't true. The transcontinental railroads were given land grants and subsidized bonds to finance their expansion, and the railroads that operated across state lines were exempted from state-level regulation by Supreme Court decisions like *Wabash, St. Louis & Pacific Railway Co. v. Illinois* and *Allgeyer v. Louisiana*.

More recently, the conduct and business models of the economy's leading corporations do not evince technological superiority or competition on the merits, but rather high profits, labor monopsony, and large payouts to shareholders at the expense of other stakeholders. Even rising inter-firm earnings inequality is not due to the fact that high-paying firms are more productive than previously, but rather that they are better able to segregate workers from the profits they earn for their employers (or, legally speaking, from the firms that dominate and control their employers).[3]

Second, the assumption that entry is typically easy and that it would "punish" anticompetitive behavior by competing away the profits of an incumbent monopolist is also flawed. Over the last 40 years, entry has been in decline, even as profits take up a larger and larger share of macroeconomic output.[4] There are many possible reasons why higher profits do not cause entry, and why entry in general is not as forthcoming as Bork's statement about "sky-darkening swarms" assumes. The de facto legality of all sorts of anticompetitive, discriminatory, and exclusionary conduct by powerful incumbents since antitrust started to be rolled back in the 1970s is a likely candidate.

If the basic economic assumptions underlying Chicago School antitrust are flawed, so are the more specific ones that relate to vertical mergers. The single monopoly profit theory is flawed in multiple ways. First, vertical supply chains rarely involve acquiring parties that are protected by such prohibitive entry barriers that they enjoy full monopoly power before the merger. The more empirically relevant scenario is a merger between firms that both have some market power. In that case, the merger may lead to foreclosure, ushering *increased* monopoly power in one or both markets.

Second, even if the upstream firm has dominant market power, it may face potential competition from downstream firms (including the one that they want to merge with), and a merger may eliminate the role of the downstream company in facilitating entry into the upstream market, or vice versa. Both EDM and the single monopoly profit theorem assume

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[3] (Steinbaum, Bernstein, and Sturm 2018; Song et al. 2019).

[4] (Konczal and Steinbaum 2016; Decker et al. 2015).

that supply chain segments are static. But the Facebook-Instagram example shows that a firm can start out as a content provider (Instagram) and be integrated into a social network.

Third, even when foreclosure doesn't threaten to reduce competition, a merger may facilitate price discrimination or the evasion of price or other types of regulation (Salop 2015). For example, AT&T has claimed to be exempt from the Federal Trade Commission (FTC)'s consumer protection regulations regarding the throttling of data because its telephone business is a common carrier, and common carriers are exempt from the FTC Act. That particular claim failed, but it's not hard to see how having a hand in every business enables a dominant company to engage in regulatory arbitrage, claiming that it isn't rightly considered any one of its constituent parts—ultimately ensuring that it does not have to play by the same rules as its competitors.

Finally, elimination of double marginalization also rests on shaky ground. There are numerous real-world examples in which the "efficiency benefits" of a merger do not actually get passed on to consumers. If the upstream firm is selling to the downstream firm's rivals at a markup, then it would be sacrificing profits by diverting its product to the downstream affiliate. Second, all of the efficiency benefits to be gained can frequently be accomplished through vertical contracting, without the need for a merger.

This was at play following Comcast's merger with NBCUniversal Media (NBCU). The DOJ concluded that "much, if not all, of any potential marginalization is reduced, if not completely eliminated through, the course of contract negotiations" in its Competitive Impact Statement (DOJ 2011). Prior to the merger, many supporters claimed that the elimination of double marginalization would result in lower cable bills for Comcast customers., but that did not occur. Comcast earned higher profit margins following the merger (Cooper 2017).

Notwithstanding their flawed and empirically baseless reasoning, the government's vertical merger policy was altered substantially under the Chicago School's influence—to the point that vertical mergers are rarely challenged and vertical integration is the norm in many industries. While it is true that the Chicago School's theories do not represent the cutting edge of what economic theory has to say about vertical mergers—in fact, more empirically relevant approaches, such as "raising rivals' costs," play a role in antitrust enforcement of vertical mergers—there is no doubt that vertical merger enforcement in the 21st century remains significantly lighter than horizontal enforcement. Even if the antitrust agencies believe that they maintain a vertical merger policy, the reality is that no vertical merger challenge has been successfully litigated in the modern antitrust era—and would-be merging parties have taken note. We can see that with the spate of recent vertical mergers consummated by parties whose horizontal mergers were only recently successfully blocked, suggesting that vertical integration is the route of choice to effect horizontal monopolization when the latter faces at least some antitrust scrutiny. The crucial issue is that the differential treatment of the two in antitrust policy and enforcement is based on economic theories that hold that vertical mergers are less threatening to competition than horizontal mergers. As we have seen, however, that theory is flawed.

THE CONSEQUENCES OF VERTICAL MARKET POWER

In both of the vertical merger cases discussed below, the enforcement agencies imposed conditions rather than challenging a vertical merger outright. Even with these conditions in place, the mergers turned out to be anticompetitive, either because the conditions weren't enforced or because they weren't sufficient to ensure that vertical market power wouldn't be abused. The following cases suggest that such conduct-based remedies are in fact ineffective, largely because the stipulations are only enforced or acted upon if there is an official complaint brought against the firms in question. Moreover, the oversight and enforcement mechanisms put in place by the decrees proved to be ineffective in the event, and in each of the cases discussed, the agreements will eventually expire or already have.

Live Nation-Ticketmaster

In 2010, the DOJ didn't block the merger of Live Nation, the nation's largest concert promoter, and Ticketmaster, the largest ticketing services provider. Instead, it reached a consent decree with the parties, which expires in 2020. The decree states that Live Nation cannot "condition or threaten to condition the provision of live entertainment events" if a venue decides to use another company for ticketing. This measure was meant to preserve competition in the ticketing market, which would have been threatened if LiveNation had been able to use its market power in the booking market to coerce its customers to also purchase Ticketmaster's ticketing services.

Eight years later, Live Nation is more dominant than ever, and ticket prices are at record highs (Sisario 2018). Live Nation claims that the rise of ticket prices isn't due to the merger but rather from overall changes in the music industry, such as artists relying on touring income as record sales have plummeted. However, this is irrelevant to the policy question at hand. The fact that musical acts earn a larger share of their revenues from live performance versus recorded music now doesn't explain or justify the high prices and rising share of the proceeds earned by promoters.

Live Nation manages 500 artists, which empowers the firm to decide which venues win the most sought-after tours. There have been complaints that Live Nation has used its power over concert tours to pressure venues into contracting with its subsidiary, Ticketmaster. For example, Infinite Energy Center (formerly Gwinnett Center) complained that Live Nation punished them for not using Ticketmaster for a concert and ultimately chose to work with another venue as a result. The following year, Live Nation reduced the number of bookings for Infinite Energy Center (Sisario 2018).

Regarding anticompetitive behavior by venues, Ozzy Osbourne sued the Anschutz Entertainment Group (AEG), a competitor of Live Nation that is also vertically integrated with several venues. He claimed that AEG tried to bar him from playing in the O2 Arena in London, England, unless he agreed to play at Staples Center in Los Angeles, which is owned by AEG. The live entertainment industry contains a duopoly in which both companies have clearly conducted anticompetitive, exclusionary practices. Vertical integration enables the two to collect fees at all levels and therefore offer artists a huge percentage of ticket revenue at the doors. Their unchecked vertical market power gives them the ability to decide which venues will be profitable by deciding which venues can feature major artists.

The consent decree in the Live Nation case did not prevent tying and foreclosure in ticketing, and enforcement officials are not equipped to regulate potential anticompetitive practices on an ongoing basis. The two promoters have essentially recreated the film Studio System within the live music industry. They have the ability to exert power over artists by being dominant in a highly concentrated market, and they also exert power over the venues by bundling their concerts with their ticketing service.

Comcast-NBCU

In 2011, Comcast, a cable network and internet service provider, acquired NBCU, a content creator (and parent of Universal Pictures, one of the movie studios subject to the Paramount consent decrees), in a $30 billion deal approved with another consent decree. The DOJ imposed the condition that Comcast must maintain network speeds and provide equal treatment under any broadband offering to other competing content providers (DOJ 2011).

However, in 2012, Comcast exempted Xfinity TV—Comcast's cable TV arm—from its bandwidth caps. This is a direct violation of the stipulation in the consent decree mandating that, "Comcast must maintain network speeds and provide equal treatment under any broadband offering to other firms."

Not only did Comcast favor its own streaming service by removing its bandwidth caps, and thereby make its service much faster in comparison to its competitors, but it also slowed down streaming speeds for its competitors. In early 2014, Netflix was forced to pay Comcast to ensure that Netflix videos would play smoothly for customers using Comcast's broadband service. For several months prior, users were experiencing poor internet speeds, thus causing Netflix to lose customers. Following the payments, Netflix's customers experienced a 65 percent improvement in their average connection speed (Brodkin 2014). Netflix has accused Comcast of deliberately causing the crisis by refusing to upgrade their network to account for increasing use of video streaming services. Considering that Comcast is one of the nation's largest cable companies, it would have the incentive to hinder competition and limit internet TV companies' usability to their own broadband customers.

This is a prime example of how vertically integrated firms can foreclose their competitors in a way that harms both upstream competition and consumers, and it led to the Federal Communications Commission (FCC)'s decision to impose its "Open Internet Order" on broadband carriers in 2015. Unfortunately, the FCC under the Trump administration has rescinded the order, and with the expiration of Comcast's consent decree, there is effectively no further federal policy insuring neutrality for broadband. Thus, weak antitrust goes hand-in-hand with weak regulation, allowing market power to proliferate throughout the telecoms sector and requiring competitors to vertically integrate as well in order to remain competitive.

THE IMPLICATIONS OF RECENT VERTICAL MERGERS

Despite antitrust concerns, a series of vertical mergers were consummated in the last year. The industries in which these mergers are taking place are already highly concentrated horizontally, so the harms of these mergers stretch beyond the harms of vertical integration as discussed prior. Due to the oligopoly structure along supply chains in both telecoms and health insurance, these mergers encourage the rivals of these firms to vertically integrate in order to compete in fear that without their own captive source of supply or distribution, they will be unable to maintain their existing market share. Each consolidation thereby ratchets the pressure to create yet another walled garden, similar to Hollywood under the Studio System.

AT&T-Time Warner

The district court ruled against the DOJ's challenge to the AT&T-Time Warner merger in June 2018, permitting it to go forward immediately. (In February 2019, a federal appeals court upheld the ruling.) Following AT&T's acquisition of Time Warner, it released a content streaming service called "AT&T Watch" for $15 a month. Anyone subscribed to AT&T's unlimited data plan can get the service for free. In theory, this could be considered an example of how vertical integration could benefit the consumer through the bundling of services and the realization of efficiencies or "synergies" between the merging parties.

However, given the historical context of the industry, there is greater potential for harm to competition. We've seen that Comcast, despite its consent decree, was able to force Netflix to pay up in order to keep network speeds high enough to support streaming. AT&T has similar incentives to slow down internet speeds of those who rival its own streaming service. Considering the relaxed regulation following the repeal of the FCC's Open Internet Order, this will result in the further segmentation of the telecoms industry into vertically integrated walled gardens. Market concentration of the telecoms industry will lead to high prices and limited choice for consumers and little if any access to consumers for independent content creators, just as prevailed under the Studio System before the Paramount decree.

In its statement inviting a revision or total elimination of the Paramount decree, the DOJ noted that the industry has seen enormous technological change since 1948. Indeed, it has: In 1948, the Hollywood movie studios had nothing to do with the phone company. Now, though, a dominant telecommunications firm is vertically integrated with Warner Brothers, one of the studios that is subject to the decree. Another dominant telecoms service provider, Comcast, is vertically integrated with Universal Studios, also subject to the decrees. Vertical integration has been allowed to proliferate in the world of online content streaming not because of technological change but rather because the antitrust laws used to prohibit the abuse of vertical market power and now they don't.

Cigna-Express Scripts

Cigna's recently-completed $52 billion acquisition of Express Scripts raises similar concerns about the pharmacy/health insurance supply chain. Cigna is one of the largest insurers and Express Scripts is the largest pharmacy benefit managers (PBM). PBMs are hired by insurers to negotiate drug manufacturers' prices, and manufacturers then pay rebates to PBMs for a preferred placement on a plan's prescription drug formulary. A PBM also assembles networks of pharmacists who agree to fill prescriptions on pre-established terms, and it negotiates with pharmacies over reimbursement for drugs and dispensing fees. As the middleman between insurance companies, drug manufacturers, and pharmacies, a PBM increases its negotiating power as it grows. This attracts more customers due to its supposed ability to offer lower prescription drug prices for insurance companies, leading to further expansion. Currently, the top four PBMs control 80 percent of the market (Pearlstein 2017).

Both the health insurer (Cigna) and the PBM (Express Scripts) claim that their merger benefits consumers by bringing together a patient's medical and pharmacy histories to improve treatments and lower costs. The deal could make Cigna able to compete with other dominant companies that are already vertically integrated such as United Healthcare. In 2015, United Healthcare acquired Catamaran in order to combine the PBM with OptumRx—its own PBM. As we see here, one vertical merger gives rise to pressure on competitors to merge vertically in turn.

This will have devastating effects in the health industry. It marks the end of Express Scripts as the last major independent PBM. There aren't any large independent pharmacy managers left for small insurers. In response, Food and Drug Administration (FDA) Commissioner Scott Gottlieb brought the impact of vertical integration on the health care industry to light by stating the following in a speech at the National Health Policy Conference:

> *Current rebating and contracting practices—combined with the increased consolidation that we're seeing in many segments of the drug supply chain—ha[ve] produced some misaligned incentives.*
>
> *The top three PBMs control more than two-thirds of the market; the top three wholesalers more than 80 [percent]; and the top five pharmacies more than 50 [percent]. Market concentration may prevent optimal competition. And so the saving may not always be passed along to employers or consumers.*
>
> *Too often, we see situations where consolidated firms—the PBMs, the distributors, and the drug stores—team up with payors. They use their individual market power to effectively split some of the monopoly rents with large manufacturers and other intermediaries rather than passing on the saving garnered from competition to patients and employers (Gottlieb 2018).*

Though insurers and PBMs tout the benefits of mergers for consumers, we have seen that insurance premiums have risen and profits have increased for pharmaceutical manufacturers (Duffy and Milani 2019).

CVS-Aetna

CVS's recently approved acquisition of Aetna raises even more concerns. The drugstore giant acquired Aetna, one of the nation's largest health insurers, in a $69 billion deal. Both markets are already highly dominated by a few firms. In the past, agencies blocked Walgreens-Rite Aid (though a substantial transfer of stores was permitted), Aetna-Humana, and Anthem-Cigna—all horizontal mergers. Now there have been two vertical mergers by the parties of those blocked horizontal deals, suggesting that powerful firms see the lighter antitrust touch for vertical mergers as a loophole that they can easily walk through on the way to dominating their markets and raising their profits even further.

The particular significance of this deal comes from CVS's ownership of Caremark. Caremark is a PBM, and Aetna was its largest customer prior to the merger. Vertically integrating the two will give Caremark an incentive to favor Aetna over other insurers in negotiating pharma prices and placement on formularies. There are also fears that CVS would give Aetna access to information that CVS has about other insurers and their patients. Following the CVS-Aetna merger, the newly combined Cigna-Express Scripts could potentially buy Walgreens in order to compete, thus reshaping our entire health care system. The fact that two PBMs merged with health insurers in close succession suggests the anticompetitive ratcheting-walled-garden scenario is at play here as well. Either merger triggers an escalating arms race of consolidation in two markets that are already highly concentrated.

Fresenius-NxStage, United Health-Davita, and Staples-Essendant

Two other vertical deals have recently been approved by the FTC: the merger of the already-vertically-integrated renal care/dialysis machinery manufacturer Fresenius and a competing producer of in-home dialysis machines, NxStage, as well as the office supply retailer Staples with the business-to-business supplier Essendant. A third health-related vertical merger, between United Health group and Davita, the other major player in dialysis, is currently under consideration as of this writing.

> ***The real problem is the legalization of highly profitable business models that suppress competition and exploit stakeholders throughout the supply chain, no matter how large or small the parties to any given merger are.***

Fresenius and Davita are among the most glaring examples of exploitative business models at work in health care today (Eliason et al. 2018). Their business model is to re-engineer dialysis practices into Medicare extraction machines, systematically worsening care while maximizing their reimbursements from the Medicare system (which covers all treatment for anyone diagnosed with renal failure). Fresenius's acquisition of NxStage raised obvious competitive concerns, because while at present the vast majority of dialysis treatment takes place in clinics, the market share accounted for by in-home administration is expected to grow. It is from this source that any competitive threat to Fresenius's and Davita's control of dialysis might arise. Yet, now that Fresenius controls NxStage, we can be sure that the transition to in-home care will be done in such a way that Fresenius's ultra-profitable business model remains unthreatened.

In Fresenius-NxStage and Staples-Essendant, the FTC entertained concerns about harm to competition but ultimately chose not to proceed to a full-on challenge or even to structural divestitures. Such an outcome appears likely in United Health-Davita as well, although in that case select divestitures of medical practices that could be used to foreclose competition from rival health insurers may be an option. But all three cases illustrate that the threat from lax vertical merger enforcement goes well beyond the headline-gathering mega-deals. The real problem is the legalization of highly profitable business models that suppress competition and exploit stakeholders throughout the supply chain, no matter how large or small the parties to any given merger are.

TECH PLATFORMS AND "SUPERFIRMS"

Recent economic literature has suggested that so-called "superfirms" have been able to dominate their market due to increasing returns to scale and rising fixed costs combined with lower marginal costs. As the argument goes, this technological evolution of the structure of production in the US, and not lax antitrust enforcement, explains the prevalence of dominant and vertically integrated business models in so many sectors and in tech in particular.

In fact, this argument takes two, mutually inconsistent forms. In one story, rising fixed costs of entry, whether because of valuable intangible capital or sophisticated logistics (or other forms of specialized software protected by patents or other barriers), make entry more difficult and permit incumbents to achieve high market share in their industrial segment and then branch out by achieving integration "efficiencies" (e.g., operating systems with applications). This is a story of rising market power and declining competition: Concentration causes incumbents to profit-maximize by charging higher markups. Only in expectation, net of the rising costs of entry, are profits driven to zero. Kennedy (2018) contains a version of this theory, for example.

The other version of the superfirm story claims that the economy has gotten more, not less, competitive. In this version, the most efficient firms are increasingly able to gain market share at the expense of inefficient firms, because they charge lower prices and thus steal business away. The driving force in this story is not rising fixed cost of entry but rising price elasticity of demand for final output. Incumbents are more prone to robust competition than they used to be, and to the winner go the spoils. This is a story of rising competition and declining market power alongside rising concentration. Autor et al. (2017) is a good example of this theory put to work.

Both stories cannot be true, but they are often repeated in the same breath as though to wave away the question of whether antitrust enforcement has gotten too lax. Despite being inconsistent in respect to every economic observable other than rising concentration, both stories share the common policy implication that antitrust enforcement would be futile or counterproductive; hence the attraction for insiders and dominant firms, despite their lack of contact with reality.

Both stories cannot be true, but they are often repeated in the same breath as though to wave away the question of whether antitrust enforcement has gotten too lax.

In reality, the business models we see at work in tech are the result of lax antitrust enforcement and the concomitant legalization of vertical integration, exclusion, discrimination, predation, deception, and other once-illegal, or at the very least scrutinized, practices.

Microsoft

In the *US v. Microsoft* case 20 years ago, Microsoft was found to have violated the Sherman Act in its attempt to tie its web browser to its operating system (OS), thus leaving Netscape, a rival browser, at a disadvantage. Judge Thomas Penfield Jackson wrote that "the court concludes that Microsoft maintained its monopoly power by anticompetitive means and attempted to monopolize the Web browser market," as well as "unlawfully tying its [w] eb browser to its operating system." (The tying judgment was ultimately reversed on appeal, establishing a new, weaker enforcement regime for that particular anticompetitive practice.) Microsoft also attempted to create its own version of Java and encourage other companies to use it instead of the authorized version, owned by SUN Microsystems Inc., but Jackson ruled that this prevented Java from competing on the merits (Brinkley 2000). If it was not for antitrust enforcement action, Microsoft would have had complete dominance over the software market.

Microsoft may have been found to have violated the Sherman Act, but the denouement of that litigation was disappointing as to remedies, leaving Microsoft's vertically integrated business model intact, alongside commitments to police its own exclusionary conduct internally. It also laid down a path to setting up that same vertically integrated, exclusionary business model in practice while easily maneuvering around the overt practices that ensnared Microsoft. Instead of outright barring an operating system from interoperating with any app of one's own, a dominant platform could engineer both its product and its licensing contracts to make such interoperation a dead letter in practice—by pre-installing affiliated software and eroding the user experience, for instance, for anyone who dares to stray outside the walled garden. And that is exactly what Google has done.

Google

In order to control the mobile app market and solidify its dominance in advertising, Google has turned itself into a highly vertically integrated company. The consent decree that prevented Microsoft from foreclosing potential competitors using its downstream operating system software monopoly does not apply to Google, and Google has taken steps to keep it that way. Google has ducked regulation because it does not exclude other companies from using any element of its software. Instead, the tech giant engineers its technology so that it is more *convenient* for users to stay within Google's collection of apps, by imposing substantial switching costs. Similar to the packaging of Microsoft Office with Windows and Internet Explorer, for example, Android phones come pre-installed with Google apps (Edelman 2017). The way that these apps integrate with each other on the Cloud causes users to prefer using all their apps from the same company. Therefore, Google is able to replicate product lines developed by independent companies, such as file-sharing and travel search and booking sites. Because Android is the largest mobile OS, Google has been able to extend its reach in collecting mobile data from these apps.

Google offers phone manufacturers its mobile OS for free, but only so long as they agree to bundle it with Google's apps. Because the license to use Android comes for free, it avoids considerable antitrust risk—the true payment, in the form of Android users' data and attention, flies under the antitrust radar. The bundling puts Google's competitors in the app market at a disadvantage since people are unlikely to switch apps after already having Google's apps on their phone. The value of collecting our data and using it to sell targeted advertising makes it feasible for Google to offer their OS for free. This creates a barrier for entry in the mobile OS market, and it makes Google the dominant targeted advertiser as well. It would be nearly impossible for a firm with an independent mobile OS to compete with Google as they would not be able to offer their OS for free. The only major alternative mobile OS is Apple's, which is not licensed and is bundled with its branded hardware. Thus, there are only two business models, both vertically integrated, which leaves no room for new entrants.

Facebook

Facebook acquired Instagram in 2012. At the time, Instagram was Facebook's greatest threat, attracting a younger user base with its greater mobile usability, while Facebook remained native to desktop. Instagram did not sell ads. The barriers to entry for a new photo-sharing app in "cyberspace" were seen as nonexistent, so Facebook purchasing any one such photo-sharing app was viewed as competitively neutral. However, as Facebook's user base grew, so did its market power. There are increasing returns to scale in this market due to network effects; as the network attracts more people, others will follow because more people they know are on that network in comparison to its rivals. By having more users, the network is able to attract more buyers of ad space and thus prevent future rivals from gaining a foothold.

However, Instagram was a startup that grew exponentially even when Facebook was already dominant, and it did so without selling ads. Facebook also acquired other potential entrants, such as WhatsApp in 2014 and a VPN-tracking firm Onavo in 2013, which let Facebook detect threats to its market power from new apps gaining users in real time.

Regulators should not classify Facebook as a "superfirm" whose dominance is earned by its superior efficiency and ignore the anticompetitive behavior and harms that stem from its unchecked market power, which is used to prevent challenges to its dominant social network and extend that dominance into new markets. For example, documents that came to light in 2018 make it crystal clear that Facebook excludes would-be rival social networks from access to its platform, for fear that they might ultimately be able to compete with it. Thus, Facebook has been "free to assert its market power, by piling on more ads for users, jacking up its advertising rates and also invading privacy without fear of people fleeing for an attractive rival" (Wu 2018).

POLICY SOLUTIONS TO REVIVE VERTICAL MERGER ENFORCEMENT

Merger policy should aim to preserve competition throughout the supply chain and shift focus away from consumer price concerns alone. This requires abandoning the consumer welfare standard. Instead, antitrust enforcers should assess of the effects of consolidation on suppliers and innovation during merger review. As discussed at greater length in *The Effective Competition Standard* (Steinbaum and Stucke 2018), reduced competition along the supply chain can have significant negative effects for stakeholders beyond consumers that are not apparent when the authorities focus solely on consumer prices, such as reduced innovation, foreclosure for competing suppliers and distributors, and lower-quality goods and services.

As an example of what vertical merger enforcement should not look like, consider the case the DOJ put forward in AT&T-Time Warner. The government contended that by threatening to withhold Time Warner's programming from rival distributors, the merged entity could increase the prices its competitors' subscribers would have to pay to access that content. The defense cast doubt on the government's claim that prices for consumers would go up by wrangling over crucial input parameters to the structural economic model used to make that prediction. But that model was in no way accurate enough to distinguish between the government's and the defendant's predictions, so in fact, there was no real difference between each party's prediction.

> ***As discussed at greater length in* The Effective Competition Standard, *reduced competition along the supply chain can have significant negative effects for stakeholders beyond consumers that are not apparent when the authorities focus solely on consumer prices, such as reduced innovation, foreclosure for competing suppliers and distributors, and lower-quality goods and services.***

After the merger closed, prices went up for consumers. But more relevant to the policy question, that is excessively narrow and unsubstantiated grounds on which to adjudicate vertical mergers that have profound effects on the concentration of power in the economy. The government did not even try to make the case that competition in the supply chain would be threatened or that content creators would be prevented from reaching the market or from making a living. The way forward for vertical merger enforcement should start by rejecting the jurisprudence of the AT&T-Time Warner litigation and the district court's opinion.

The *Non-Horizontal Merger Guidelines* date back to 1984 and provide the theories with which the antitrust enforcers would likely use to challenge a merger. Bruce Hoffman, director of the Bureau of Competition at the FTC, acknowledged that the *Non-Horizontal Merger Guidelines* do not provide useful guidance for vertical mergers today (FTC 2018)—a point the federal circuit court reiterated in its decision on AT&T-Time Warner. Recent FTC merger approvals for Staples-Essendant and Fresenius-NxStage signal that the government's enforcement policy remains too weak and too willing to overlook harms to competition arising from legalizing vertically integrated business models that create a self-reinforcing dynamic in the market.

The top priority for antitrust policy should be to update the guidelines to reflect the damage that vertical market power is currently doing to the economy. They must take seriously the threat posed by monopoly leveraging and monopoly maintenance through vertical integration, instead of waving them away with empirically vacant theories as the Chicago School did. Given Supreme Court precedents skeptical of monopoly leveraging theories of harm (*Verizon v. Trinko*, 2004), Congress should clarify that these theories of harm are in fact contained within the Sherman Act and that *Trinko* was wrongly decided.

Once agencies are equipped with an updated and sufficient review process, agencies' focus should be on conducting merger retrospectives and implementing remedies wherever necessary, including sector-wide structural separation like what was put in place by the Paramount decrees. Ultimately, regulators need to analyze the effects on all of the stakeholders potentially affected by a given merger, including upstream suppliers and content creators, not just consumers.

We now know that abandoning antitrust policy that gave us the Paramount decrees was a grave economic and social policy failure—one that urgently needs to be rectified.

Given that the economy already faces the proliferation of vertically integrated walled gardens in many industries—telecoms, tech, health care, and others—it's appropriate to not only shift merger review toward extreme skepticism about transactions to come (e.g., by shifting the legal burden to the merging parties to affirmatively show that the merger would not harm competition if they want their merger approved) but also to undertake monopolization and monopsonization enforcement in many of these sectors—just as the DOJ did with Hollywood in the 1940s, which established a regime that ultimately diffused concentrated power, sparked artistic creativity, and more widely distributed the industry's gains. We now know that abandoning antitrust policy that gave us the Paramount decrees was a grave economic and social policy failure—one that urgently needs to be rectified.

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