

# ZERO PRICE, ZERO COMPETITION: HOW MARKETIZATION FIXES ANTICOMPETITIVE TYING IN MONETIZED MARKETS<sup>‡</sup>

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## ABSTRACT

*In this paper, we propose a new way to conceptualize zero-priced markets, and a novel regulatory remedy to fix these markets if they are monopolized. We expand on an idea recently voiced by neo-Brandeisians and formally modelled by economists in the past two decades – namely, that the Chicago School’s arguments for the harmless and efficiency generating nature of vertical integration do not apply on zero-priced monetized markets. We build on these findings by developing a non-formal, incentive-based theoretical model that shows how the non-interventionist Chicago School approach leads towards irreversible market failure. We propose marketization as a solution to this conundrum – a structure whereby consumer activity on zero-priced markets and its subsequent monetization are no longer in the hands of the same company. Instead, marketization introduces competition by allowing the consumer to choose how and by whom to be monetized. Lastly, we proceed to examining the potential for eventual policy implementation of marketization through the recent proposal for a Digital Markets Act by the EU Commission, and through the five bills recently approved by the US House Judiciary Committee.*

*JEL: L40, L41, L42, K21*

## I. INTRODUCTION

This paper expands on the idea voiced by neo-Brandeisians that the Chicago School’s arguments for the harmless and efficiency generating nature of vertical integration do not apply in the context of zero-priced monetized markets. The Chicago School’s arguments took root in the 1970s, and have been a mainstay of competition regulation in the EU and in the US ever since.<sup>1</sup> However, IO economists have already started doubting their applicability to digital markets in the early 2000s.<sup>2</sup> Since then, formal economic models showing anti-competitive leveraging and the market tipping potential of digital markets have mushroomed.<sup>3</sup> Inspired by their findings, we develop a non-formal, incentive-based theoretical model that shows how the non-interventionist approach, which the

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<sup>1</sup> William Kovacic, *The Intellectual DNA of Modern US Competition Law for Dominant Firm Conduct: the Chicago/Harvard Double Helix*, 1 COLUMBIA BUSINESS LAW REVIEW (2007); Dzmityr Bartalevich, *The Influence of the Chicago School on the Commission’s Guidelines, Notices and Block Exemption Regulations in EU Competition Policy*, 54 JOURNAL OF COMMON MARKET STUDIES (2016).

<sup>2</sup> Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-sided Markets*, 1 JOURNAL OF THE EUROPEAN ECONOMIC ASSOCIATION (2003).

<sup>3</sup> Thomas Eisenmann et al., *Platform Envelopment*, 32 STRATEGIC MANAGEMENT JOURNAL (2011); Cédric Argenton & Jens Prüfer, *Search Engine Competition with Network Externalities*, 8 JOURNAL OF COMPETITION LAW AND ECONOMICS (2012).

Chicago School encourages, leads towards irreversible market failure and harms consumer welfare, especially since zero-price monetization models are highly prevalent in (digital) markets today.

Monetization is a useful innovation, which grants consumers access to goods and services free of charge, with revenue being generated through an auxiliary product such as targeted advertising. However, by focusing on incentives, we describe how vertical integration of a firm's core product(s) with its monetizing product creates mechanisms that, among other harms, make markets prone to tipping and encourage dominant firms to use below-cost pricing in order to enter adjacent markets and expand the size of their profitable monetizing market. In this sense, we confirm the findings of formal economic models by a different route: the development of a high-level, incentive-based framework in Sections II and III. We will then apply the said framework to zero-price vertically integrated platforms (Section IV), and propose a new regulatory concept, *marketization*, as a remedy to previously identified core concerns.

Using this same framework, in Section V we proceed to commenting on the recently released platform regulation proposals of the EU and the US, as they have a direct bearing on the future regulatory context for zero-price vertically integrated platforms – a future that seems to be heavily informed by competition policy reasoning and principles.

## II. THE EFFECT OF MONETIZATION ON MARKET DYNAMICS IN THE CONTEXT OF VERTICAL INTEGRATION

Before examining the effects of monetization on markets, we must first discuss the basic conditions and incentives under which markets operate, so that we can then understand how they change in the context of monetization.

### A. MARKETS, INCENTIVES, AND VERTICAL INTEGRATION

Markets are useful because they function as a mechanism for assigning value to products and services. They do this in two ways: first, by granting market participants sovereignty over their own actions within the market, and second, through their capacity to mediate between the opposing interests of producers and consumers. In terms of incentives, producers wish to sell their goods and services in order to make as much profit as possible, while consumers aim to satisfy their desire to consume these goods and services while minimizing their own financial expenditure.<sup>4</sup>

The first property, sovereignty, dictates that each participant in the market must be able to choose with whom they transact, and, crucially, must be able to seek out alternatives if a given transaction is unattractive. This enables participants to avoid interactions with unreasonable partners; this criterion forces all market players to find compromises and prevents the interests of one participant from overruling another. Thus, the compromises that result constitute the actual value assignment function of the market.

The second property, mediation, relies on the assumption that all participants are rational, and will only commit to a transaction if it has a net positive outcome for them. In broad terms, this means both that producers require the sale price of a product to exceed its production costs, and that consumers will only consume the product(s) if their subjective assessment of the value of the product exceeds its sale price.

Another function of markets inheres in their ability to allow firms to specialize in the production of a given product or service, which generates economies of scale or scope.<sup>5</sup> These

<sup>4</sup> François Bar & Christian Sandvig, Rules from Truth: Post-convergence Policy for Access (2000).

<sup>5</sup> ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (5th ed. compilation by E. Cannan, reprinted. London: Methuen & Co., Ltd., 2000. 1776).

economies make the whole system more efficient. As such, most markets can be seen to have multiple layers, where firms at each layer take a number of “inputs” and produce a product as an “output.” The interactions between firms where one firm’s outputs are another firm’s inputs (i.e. between producers and consumers at different layers of the market) are said to be “vertical.”

The classical argument to understand the effects of vertical arrangements on competition is similar to the conditions described above; the argument asserts that competitive outcomes are maintained by virtue of the upstream producer’s interests being opposed to those of the downstream consumer and vice versa. This means that, so long as one of these participants does not possess market power (for example, the upstream producer is a monopolist or the downstream consumer is a monopsonist),<sup>6</sup> no individual firm will be able to influence market prices.<sup>7</sup>

On the other hand, vertical integration occurs when a single firm spans multiple layers of the market; for example, the supply chain of a company may also be owned by that company, as is the case when a producer and distributor have merged into a single entity. In the late 1970s, Chicago School scholars extended the above logic for vertical agreements to show that vertical integration was also almost always pro-competitive.

Their view hinged on three arguments, as explained by Khan.<sup>8</sup> First is the so-called “*single monopoly profit*” argument. This argument goes that consumers will examine the total cost of the whole product and will not pay more overall, even if there is a discount at one level of the market. For example, a rational consumer would not purchase a car for a steeply-discounted price if the car required a special fuel that was only produced by the car maker and was far more expensive than other fuels. In this case, rational consumers would look at the total cost of their consumption, and realize that the extra cost of the fuel would outweigh the discounted upfront cost of the car.

Second, Khan outlines: “that an integrated firm would be able to foreclose rivals only to the degree that the firm had generated cost savings, outdoing less efficient competitors—an outcome that antitrust should encourage.” This precept implies that companies which are able to integrate and outcompete non-integrated firms will be able to do so only if they generate enough efficiencies through integration as to out-compete rival firms on price. Third and finally, Khan describes the argument wherein “vertical mergers would invariably generate significant efficiencies.” Essentially, this means that transaction costs are reduced when there are fewer firms involved in the creation of products.

## B. MONETIZED MARKETS

This paper rebuts the Chicago School’s arguments for the pro-competitive outcomes of vertical integration in the context of monetized digital markets. In these markets, also known as zero-price markets, consumers pay nothing in exchange for access to products and services, which has caused them to be seen in a positive light from the perspective of antitrust focused on the consumer welfare standard.<sup>9</sup> By contrast, this section describes how the combination of vertical integration and

<sup>6</sup> Monopsony, or countervailing buyer power, is “bargaining strength vis-à-vis a seller due to its size, commercial significance and its ability to switch to alternative suppliers.” RICHARD WHISH & DAVID BAILEY, *COMPETITION LAW* (Oxford University Press, USA eighth ed. 2015).

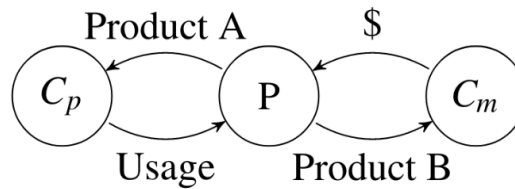
<sup>7</sup> Specifically, downstream firms force upstream firms to lower prices by threatening to change suppliers, and upstream firms refuse to sell at below-cost prices. See Frank H Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST LAW JOURNAL 135 (1984).

<sup>8</sup> Lina M Khan, *The Separation of Platforms and Commerce*, 119 COLUMBIA LAW REVIEW (2019).

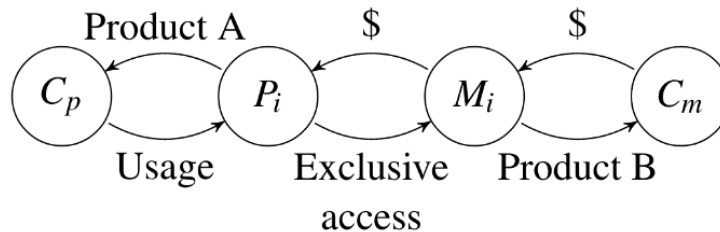
<sup>9</sup> Zero-price markets are those “wherein firms set the price of their goods or services at \$0,” John M Newman, *Antitrust in Zero-price Markets: Foundations*, UNIVERSITY OF PENNSYLVANIA LAW REVIEW (2015).

monetization makes markets liable to tipping, and creates profit maximizing incentives, which dictate that firms should continually and destructively expand into new lines of business.

In order to analyze the incentive structures and dynamics of such arrangements, we define a theoretical model to explain what monetized markets are, and understand the incentive structure of actors who participate in them. Monetized markets are often thought of as being multi-sided, where participants such as advertisers on one side of the market (termed  $C_m$ ) “pay for” the consumption of participants on the other side of the market such as social network users (termed  $C_p$ ), who are often said to somehow “pay” through their usage of product  $P$ <sup>10</sup>. This view is explained diagrammatically in Figure 1, top panel.



A conventional view of a monetized market where consumers ( $C_p$ ) pay for access to the product or service through their usage, consent to be monetized and data (but without actual payment). Their usage is funded by some monetizing agent ( $C_m$ ).  $P$  is often seen to be a single product, different features of which are used by  $C_p$  and  $C_m$ .



A two-layered view of monetized markets. The integrated firm consists of both  $P_i$  (which serves  $C_p$ ) and  $M_i$  (which serves  $C_m$ ). While  $C_p$  does not pay for their usage of  $P_i$ , they “pay” through their participation in monetization, which allows for the production of Product B and subsequent profit generation through  $M_i$ .

**Figure 1:** Conventional and layer-oriented view of monetized markets.

This paper proposes a more focused model. Rather than examining all two-sided markets, we examine a narrower subset, where  $C_p$ ’s usage of an existing product enables the creation of an auxiliary product sold to  $C_m$ , a process we describe as “*monetization*.”<sup>11</sup> The sale of this second

<sup>10</sup> Thomas Eisenmann et al., *Strategies for Two-sided Markets*, 84 HARVARD BUSINESS REVIEW (2006); Howard A Shelanski, *Information, Innovation, and Competition Policy for the Internet*, 161 UNIVERSITY OF PENNSYLVANIA LAW REVIEW (2012).

<sup>11</sup> This is similar to the concept of ‘behavioral surplus’ as described by Zuboff, though not limited to the creation of ‘prediction products’. SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* (Profile Books. 2019). Furthermore, this market definition is in line with Lee’s proposal to always define secondary relevant markets when conducting antitrust analysis of platform markets. Ki Jong Lee, *Cross-Market Impact*

product to  $C_m$  generates a profit, which is used to subsidize  $C_p$ 's usage of  $P$ . Thus,  $C_p$ 's interactions with  $P$  are described as "monetized."

Therefore, our model considers monetized markets to have two distinct layers. First, we encounter a product layer " $P$ ," consumed by  $C_p$ , which is what is ordinarily thought of as "the product" (such as a social network). Second, there exists a monetization layer " $M$ " through which another set of consumers,  $C_m$  can purchase the products of monetization (such as an advertising network).

We refer to the product and monetization layers of the market as  $P$  and  $M$  respectively, and the specific products sold by the integrated firm as  $P_i$  and  $M_i$ . To summarize with the above terminology,  $C_p$  uses  $P_i$  free of charge, but their interactions with  $P_i$  are monetized through the creation of a new product  $M_i$ . The new product exists in market layer  $M$ , which is sold to  $C_m$  at a profit, which (in turn) funds  $C_p$ 's usage of  $P_i$ . This is illustrated in Figure 1, bottom panel, and the actors involved are further described in Table 1.

Actor	Description	Example
$P$	The product consumed by end users	Firm producing $P$ is denoted as $P_i$ (e.g. Facebook's social network) which would operate in the market for $P$ (e.g. the social network market)
$C_p$	The end consumer or end user, mostly natural persons	Monetized end consumer, consumer of $P$ (e.g. the reader)
$M$	The product created as a byproduct of $C_p$ 's consumption	Firm producing $M$ is denoted as $M_i$ (e.g. Facebook's ad networks) which would operate in the market for $M$ (e.g. the display advertising market).
$C_m$	Consumers of $M$ , mostly legal persons	An individual firm, consumer of $M$ (e.g. firm purchasing advertising)

**Table 1:** Actors on monetized markets

In most monetized markets today, layers  $P$  and  $M$  are vertically integrated, meaning that  $P_i$  and  $M_i$  are operating within the same firm and  $P$  and  $M$  are marketed as the same or very related products, just to different sets of customers.<sup>12</sup> Crucially, this means that  $P_i$  and  $M_i$  are generally tied together. As noted by the UK's Competition and Markets Authority, resellers may intermediate between  $C_m$  and  $M$ . Nonetheless, all such intermediation must eventually go through  $M_i$ , which holds a monopoly over products produced as a result of  $C_p$ 's interactions with  $P_i$ . As a consequence,  $C_p$  is unable to consume  $P_i$  by any other means than being subject to monetization by  $M_i$ , and the only way that  $C_m$  can consume products created from  $C_p$ 's interactions with  $P_i$  is through the

*of Platforms' Activities: A Proposal to Introduce the Obligation to Define a Secondary Relevant Market* (SSRN Working Paper of 8 July 2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3879943](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3879943).

<sup>12</sup> For example, it is common to think of consumers 'using' Facebook and advertisers advertising 'on' Facebook rather than thinking of Facebook as consisting of a social network and an advertising network, which are two different but related products.

integrated product  $M_i$ . This is a form of vertical foreclosure.<sup>13</sup> It is important to note that despite their tied nature in most monetized markets today, both  $P$  and  $M$  are hereby modelled as standalone products in their own right.

The most widely known manifestation of monetized markets to which this model can be applied occurs in ad-funded digital business models, where consumers consent to being monetized through the harvesting of their personal data and subsequent exposure to targeted advertising. These are the so-called “zero-price” platform markets that rely on monetization through advertising and will be the key focus point driving the analysis and the policy and enforcement proposals of this paper<sup>14</sup>. However, observe that our model of monetization extends beyond this particular dynamic to any context where the interactions of  $C_p$  with products in market layer  $P$  allow for the creation of another product in market layer  $M$  which could allow  $C_p$  to pay a discounted cost for their consumption at  $P$ .<sup>15</sup>

This assertion stands because monetization, in any form, distorts the incentives of market participants.

### C. THE EFFECT OF MONETIZATION ON CONSUMER INCENTIVES

Monetization is a business innovation that has made products easier to access and lowered their upfront cost for consumers; these are outcomes widely acknowledged by competition scholars and regulators alike.<sup>16</sup> Even so, it is also the case that monetization affects the functioning and incentive structures within markets, which can alter their function in ways that are relevant to competition law and policy.

The principal way in which monetization can distort markets, and from which all subsequent harms follow, is by breaking their value-assignment function as a result of providing access to  $P$  at no cost. This removes the cost-minimizing incentive of consumers on the product side of the market ( $C_p$ ) since the cost of consumption is always zero.<sup>17</sup>

As outlined in Section 2.1, customers are incentivized to transact whenever the subjective value they assign to the product they receive in a transaction outweighs the costs they must pay. By artificially setting the price of  $P$  to zero, monetization distorts this incentive so that, so long as the value of  $P$  is subjectively positive,  $C_p$  can always engage in some degree of consumption. This means that the monetization of  $P$  creates a market distortion that drives consumption beyond what would be expected in an efficient market.

The removal of cost-minimizing incentives, within a market where all products are monetized, changes the expected behavior of  $C_p$  relative to consumers in “normal” markets; this

<sup>13</sup> Patrick Rey & Jean Tirole, *A Primer on Foreclosure*, 3 HANDBOOK OF INDUSTRIAL ORGANIZATION (2007).

<sup>14</sup> The fields of attention and data economics also analyze consumer behavior in these markets. However, they do so by examining the attention costs of consuming zero-priced products or the value of data collected by monetizing firms. This contribution departs from that approach in order to take a structural view of an abstract market. This allows for thorny debates over the value or ownership of data to be sidestepped in favor of more conventional antitrust concerns such as market foreclosure.

<sup>15</sup> An example would be if the upfront price of an e-reader was discounted and cross-subsidized by paying lower prices to publishers for their e-books. That would only work if the manufacturer has market power in the e-book market that allows extraction of increased profits from the sale of e-books through lower prices paid to publishers.

<sup>16</sup> JASON FURMAN ET AL., UNLOCKING DIGITAL COMPETITION (Report of the Digital Competition Expert Panel. 2019); Heike Schweitzer & Robert Welker, *Competition Policy for the Digital Era*, 3 THE ANTITRUST CHRONICLE (2019); NICOLAS PETIT, BIG TECH AND THE DIGITAL ECONOMY: THE MOLIGOPOLY SCENARIO (Oxford University Press. 2020).

<sup>17</sup> This analysis is based purely on price and ignores other costs that consumers could take into account, such as the time required to use products, or privacy violations involved in consumption. However, the thrust of the argument remains: consumers are incentivized to consume more when prices are discounted.

change distorts allocative efficiency.<sup>18</sup> Rather than desiring to reduce costs while maximizing benefits, customers of monetized products are instead incentivized to maximize the benefits obtainable through the consumption of  $P$  without regard for  $P$ 's cost. This divorce of cost from benefit has two effects on rational consumers. First, they are driven to consume more of the product, since increased consumption does not correspond to increased cost (as illustrated in Figure 2). Second, and most importantly, in the absence of costs (and discounting other factors such as network or lock-in effects),<sup>19</sup> they look to consume the best product in  $P$ 's market layer, because the ordinary relationship between price, quality and quantity—that higher quality products tend to command a higher price but sell fewer units—has been broken. Therefore, monetized markets are prone to tipping towards the single best product, and exhibit winner-take-all dynamics.<sup>20</sup> The latter term refers to an often observed development on such markets, whereby the market share of the strongest firm “is continuously increasing, while other firms’ market shares are dropping”.<sup>21</sup>

Furthermore, a lack of cost-minimization incentives means that  $C_p$  has fewer incentives to actively search for the best deal. Even if there is a better alternative than  $P_i$  in  $P$ , the consumer may

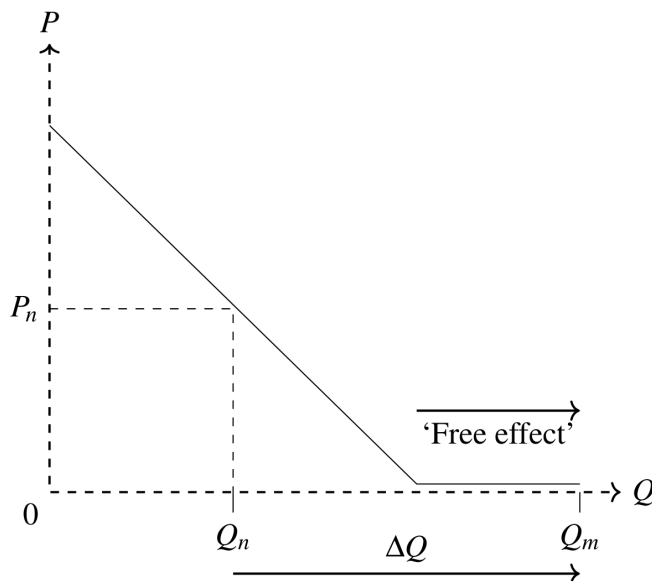
<sup>18</sup> The term ‘allocative efficiency’ refers to the state of perfect competition whereby economic resources are allocated between different goods and services in such a way that it is not possible to make anyone better off without making someone else worse off (the Pareto principle).

<sup>19</sup> For instance, a consumer may not use the highest-quality free social network if their friends all use another social network. We hypothesize that in these cases, the absence of monetary incentives reduces the need for consumers to find the best price-performance trade-off for their needs. They instead settle for a good-enough free service. This degrades the ability of firms to compete, since in contrast to conventional markets, price is not part of a competitive offer and price competition is no longer a viable market mechanism.

<sup>20</sup> This also drives up the risk of market entry; unless a competitor is able to produce the best product in the market, it is likely that they will not be able to gain much foothold at all.

<sup>21</sup> JENS PRÜFER, COMPETITION POLICY AND DATA SHARING ON DATA-DRIVEN MARKETS: STEPS TOWARDS LEGAL IMPLEMENTATION (Tilburg University, School of Economics and Management Report. 2020).

simply choose to use  $P_i$  because it is more convenient, as found in the UK's Competition and Markets Authority's report into digital markets.<sup>22</sup>



**Figure 2:** The demand curve for a product, where  $P_n$  marks the price at which consumers would value the service if it is not monetized, and  $Q_n$  marks the corresponding quantity expected to be sold.  $Q_m$  is the expected quantity consumed if the product is monetized, and the consumer is able to get the product for free, with  $\Delta Q$  being the increased consumption as a result of monetization. Note that the “free effect” (that consumers value a product more if it is given away for free than if it is sold at an extremely low price) means that the consumption of the product may be far greater if it is priced at \$0 rather than at some nominal price.<sup>23</sup> Thus, it is likely that the demand curve would “jump” when the price is zero, increasing  $\Delta Q$  accordingly (a phenomenon known as an “outward shift” of the demand curve).

### III. HARMS ARISING FROM INTEGRATED MONETIZATION

This paper aims to show that, while both vertical integration and monetization hold the potential to have pro-competitive and efficiency-generating effects, their simultaneous deployment can create serious market failures that harm consumers and make markets less efficient.

#### A. MARKET-POWER TRANSFER

It is well known from economic theory that vertical agreements or vertical integration can lead to the transfer of market- power from one level of the market to another; this phenomenon is also

<sup>22</sup> The report found that “default positions have a significant impact on consumer behavior”, and that a positive feedback loop occurs when a high market share leads to an increased ability to maintain default positions. UNITED KINGDOM COMPETITION AND MARKETS AUTHORITY, *ONLINE PLATFORMS AND DIGITAL ADVERTISING MARKET STUDY: FINAL REPORT* (Competition and Markets Authority. 2020).

<sup>23</sup> Michal S Gal & Daniel L Rubinfeld, *The Hidden Costs of Free Goods: Implications for Antitrust Enforcement*, 80 ANTITRUST LAW JOURNAL (2016).

known as monopoly leveraging.<sup>24</sup> This is the case in monetized markets when the product layer ( $P$ ) and the monetization layer ( $M$ ) are integrated, since demand for  $P$  dictates supply at  $M$ . This means that, if market power is present at  $P$ , market power is also present at  $M$ ; after all, the integrated firm controlling  $P_i$  can allow  $M_i$  exclusive access to monetize  $C_p$ 's interactions with  $P_i$  and thus foreclose access to its competition in market layer  $M$ .<sup>25</sup> This structure, wherein a firm is able to exercise a monopoly over access to its customers in  $P$  to restrict entry to  $M$ , is referred to as a “competitive bottleneck” making the integrated firm a “gatekeeper”, and an “unavoidable trading partner” in  $M$ .<sup>26</sup>

Building on these intuitions, this section shows how the Chicago School's arguments for the pro-competitive nature of vertical integration do not apply in the context of a monetized market where  $P_i$  and  $M_i$  are both dominant and integrated. It outlines how, in this case, integration is motivated not by efficiency generation but rather by a desire to engage in anti-competitive practices for the purposes of increasing market power.<sup>27</sup>

The Chicago School's first argument for why vertical integration is almost always pro-competitive hinges on the fact that consumers take the total price of goods into account, and as such, the extension of a monopoly from one market to another through vertical integration only allows for one monopoly profit. In the case of monetized markets, there is one set of consumers,  $C_p$  on the product side, and one set of consumers  $C_m$  on the monetization side. The argument still holds for  $C_m$ , since firms in market layer  $M$  are motivated to charge a profit-maximizing price in all cases. However, in the case of  $C_p$  using monetized products in  $P$ , this argument no longer applies, since  $C_p$  makes the decisions of which product to consume, yet does not pay for the cost of consumption. Thus the tied and vertically integrated nature of  $P_i$  and  $M_i$ , which prevents competitors in  $M$  from having access to  $C_p$  through  $P_i$ , combines with the insulation of consumers of  $P_i$  from the cost of consumption. This integration allows the dominant position of  $P_i$  in  $P$  – gained through the aforementioned ‘free effect’ and the winner-take-all dynamics of zero-priced monetized markets – to be transferred to  $M_i$  in  $M$ .

Obviously, the zero priced nature of  $P$  does not lead directly to higher profit for the monopolist, but rather affords the monopolist market power in  $M$ , which allows them to gain profits indirectly. Thus although there is still only one monopoly profit extracted (from  $C_m$ ), it is extracted on a different market from where the market power originated. This makes sense for the integrated firm in cases where it is able to extract more profits by charging monopoly prices in  $M$  (even while offering  $P_i$  to  $C_p$  without charge) than if it did the same directly in  $P$ . This method lets the integrated firm extract a larger profit from a monopoly in  $M$  than it could otherwise get from a monopoly in  $P$ , for instance when multinational corporations have larger advertising budgets (to spend in  $M$ ) than

<sup>24</sup> Patrick Rey et al., *The Activities of a Monopoly Firm in Adjacent Competitive Markets: Economic Consequences and Implications for Competition Policy*, 132 IDEI WORKING PAPER (2001); WHISH & BAILEY, *supra* note 8.

<sup>25</sup> If other firms in market layer  $M$  are able to source supply from places other than  $P_i$ , this effect is reduced. However, in many segments, a monopoly over  $P$  grants a de-facto monopoly over  $M$  (such as having a monopoly in social networks grants a monopoly over social network advertising, assuming that advertising on social networks is sufficiently distinct from other forms of advertising).

<sup>26</sup> Peter Alexiadis & Alexandre De Streel, *Designing an EU Intervention Standard for Digital Platforms* (European University Institute Report. 2020).

<sup>27</sup> Evans writes that “efforts to coordinate interdependent markets - and thereby produce potential efficiency gains in multi-sided markets - must be distinguished from efforts to extend a monopoly from one product to another.” David S Evans, *The Antitrust Economics of Multi-sided Platform Markets*, 20 YALE JOURNAL ON REGULATION (2003).

typical consumers have disposable income for digital services (to spend in  $P$ ). Eisenmann and his co-authors call this phenomenon “platform envelopment”.<sup>28</sup>

Such a structure allows  $P_i$  to act as a moat for  $M_i$ . As long as  $P_i$  remains dominant in its market,  $M_i$  will also be dominant in its own market and be able to extract monopoly rents. As such, it is imperative for the perpetuation of this structure that  $P_i$  remain dominant in its own market. The mechanism for this dominance is twofold.

First, while  $C_p$  is insulated from the price effects of the integrated firm’s monopoly (since they do not pay), excessive monetization by  $M_i$  could still drive customers away from  $P_i$ . However, the economics of monopolies dictate that the mechanism for achieving monopoly profits is for  $M_i$  to restrict supply to  $C_m$ .<sup>29</sup> This restriction aligns well with the customer satisfaction imperative for  $P_i$ .<sup>30</sup> In addition, the vested interest of  $M_i$  in  $P_i$  incentivizes  $M_i$  to avoid overly-aggressive monetization of  $C_p$  which would risk degrading  $C_p$ ’s experience, and jeopardize  $P_i$ ’s dominance in  $P$ . As we will show, the imperative for  $M_i$  is to expand the market for  $P_i$  so that sales volume and thus revenue can increase in tandem, rather than aggressively extracting as much supply from the existing market as possible.

Second, some of the monopoly profits earned by the integrated firm are reinvested into customer acquisition in  $P$ ’s market in order to maintain the monopoly. This means that competing firms which are not able to sustain similar indefinite “investments” into customer acquisition, such as those that do not monetize and attempt to make profits directly, are likely to be out-competed in market layer  $P$ . As for the remaining competitors to  $P_i$ , the monopoly profits earned by the integrated firm as well as its dominant position allow it to obtain the winner-take-all spot for monetized markets, ensuring the perpetuation of its monopoly (as described in Section 2.3).

Separately, the second argument of the Chicago School regarding vertical integration, “that an integrated firm would be able to foreclose rivals only to the degree that the firm had generated cost savings”,<sup>31</sup> is also nullified by the winner-take-all dynamics of monetized markets.

These dynamics arise from the fact that consumers do not pay for the cost of their consumption of products in  $P$ . Because consumers are incentivized to choose the best player in market  $P$  due to zero pricing policies, challenging an incumbent dominant firm requires the creation of the best product in market  $P$  upon market entry *and* simultaneous entry into market  $M$  (or a competent partner-firm), in order to generate revenue to challenge the incumbent firm in market  $P$ . This obviously raises the barrier to entry for  $P$ . It means both that competition within

<sup>28</sup> Thomas Eisenmann et al., *supra* note 5.

<sup>29</sup> WHISH & BAILEY, *supra* note 8.

<sup>30</sup> This assumes that monetization negatively impacts  $C_p$ ’s experience of  $P_i$ . For example, where monetization is achieved through advertising, consumers may not appreciate being shown more ads.

<sup>31</sup> Khan, *supra* note 10.

$M$  is impossible by virtue of the dominant product ( $M_i$ ) being tied to the dominant product in  $P$  ( $P_i$ ), and that competition for the market by competing against  $P$  is now even harder than before.<sup>32</sup>

## B. EFFICIENCY LOSSES

It is generally accepted in economic competition literature that vertical integration between firms generates efficiencies.<sup>33</sup> Even so, these must be weighed against inefficiencies created through vertical integration of  $P$  and  $M$  in a monetized context.<sup>34</sup>

The fact that  $M_i$  is the sole distributor of goods produced by  $C_p$ 's interactions with  $P_i$  means that  $C_m$  does not have any alternatives in layer  $M$  which can also provide these goods. As a result,  $M_i$  faces no competition. As such, with  $C_m$  being a price-taker<sup>35</sup> and  $C_p$  not paying any prices, if either  $M_i$  or  $P_i$  are to make efficiency gains which lower the total costs of production, then there is little incentive for the integrated firm to pass them along to  $C_m$ , as would happen in a competitive market.<sup>36</sup> In this sense, vertical integration between  $P_i$  and  $M_i$  creates additional harm because efficiency gains in either  $P_i$  or  $M_i$  will be less likely to be passed on to consumers than if at least one of the markets was competitive.

Thus, the loss of competition arising from tied and monetized products breaks the critical efficiency-generation function of the market. This becomes detrimental to society, and a significant departure from the model of perfect competition, if large parts of the economy are dominated by firms that engage in these practices.<sup>37</sup> While there is still an incentive for the integrated firm to create efficiencies in order to reduce its costs, this pales in comparison to conventional markets, where being out-competed by other firms as a result of being less efficient represents an existential threat rather than a missed opportunity for extra profit.

## C. INDIRECT CONSUMER HARM

Although it is easy to see that less-efficient markets are harmful on the whole, there is also the perspective of consumers to consider. First, it is obvious that consumers receiving access to valuable goods and services without having to pay is beneficial, from the perspective of consumer welfare. Nonetheless, one could also argue that  $C_p$  is indeed paying, since in many cases,  $C_m$  sells directly to  $C_p$ —such as when  $C_m$  advertises products for sale to  $C_p$  via  $M_i$ —and thus  $C_p$  pays for the increased costs of using  $M_i$  indirectly, through higher prices or lower quality of  $C_m$ 's goods (see Figure 3)<sup>38</sup>. Such an arrangement means that the costs of  $C_p$ 's consumption of  $P_i$  are merely shifted from direct

<sup>32</sup> Even assuming firms can compete within  $P$ , some authors are skeptical of the equivalence of substitution between competition for and in the market. See generally Jacques Cr  mer et al., *Competition Policy for the Digital Era* (European Commission Report. 2019).

<sup>33</sup> WHISH & BAILEY, *supra* note 8.

<sup>34</sup> In digital markets with a high volume of transactions, even small inefficiencies can incur high costs.

<sup>35</sup> In 'perfect competition', producers are price-takers. The term also refers to generally not having power over pricing; this is the meaning we use here.

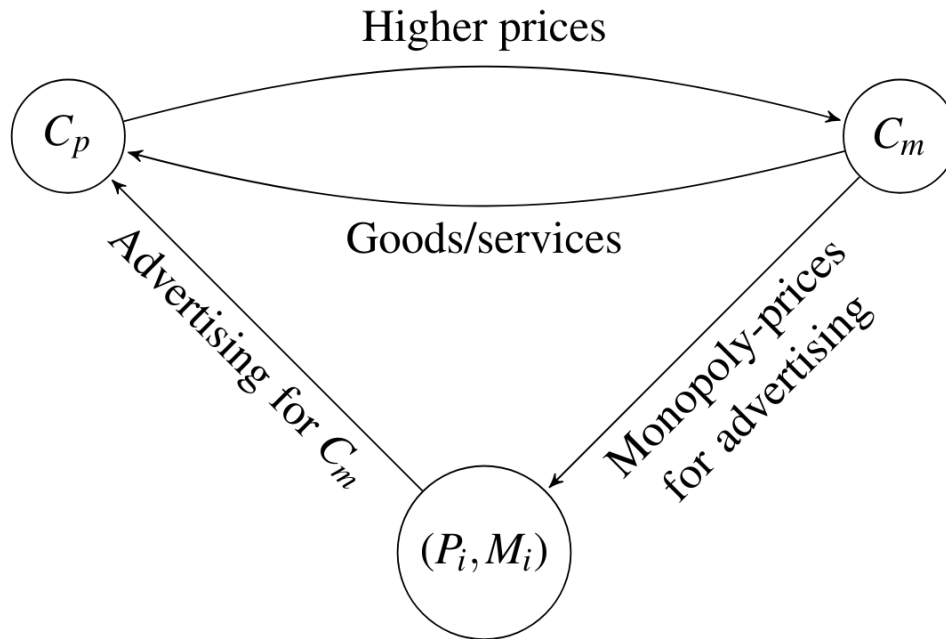
<sup>36</sup> In a competitive market, the integrated firm aims at gaining a larger market share. A drop in its marginal costs allows it to pass these cost savings on to consumers and take business away from its competitors. WHISH & BAILEY, *supra* note 8.

<sup>37</sup> The potential for harm is great considering that the top five firms in the US economy are tech giants, all of which employ monetized vertical integration. Mark Jamison, *Applying Antitrust in Digital Markets: Foundations and Approaches*, AEI PAPER & STUDIES (2019).

<sup>38</sup> UNITED KINGDOM COMPETITION AND MARKETS AUTHORITY, *supra* note 24, Part 6.20.

payments to  $P_i$  (as would be the case in a conventional market) to indirect payments to  $M_i$  via  $C_m$ , which in turn funds  $P_i$ .

Second, the Chicagoan idea that excess profits earned by the integrated firm would themselves provide an incentive for other firms to enter the business falls down, in cases where  $P_i$  is artificially monopolized by extra profits from  $M_i$  as was described in Section 3.1.



**Figure 3:** If  $C_m$  pays monopoly-rents in order to advertise its products to  $C_p$  via the integrated firm  $(P_i, M_i)$ , then it must pass on those costs to  $C_p$  through higher prices for its own goods.

#### D. MARCHING MONOPOLIES

The self-interest of sovereign market participants means that conventional monopolies are limited by the demand curve of the market, which acts as a natural upper limit for the scale to which a conventional monopoly can rise.<sup>39</sup> Typically, this means that, although monopolies can raise prices, lower quality, and create inefficiencies, they are also bounded by the demand curve of their customers and the supply curve at which they can produce.

However, this barrier can break down in tied monetized markets, since the integrated firm gains the ability to influence the supply and demand curves for  $M$  through its control over  $P$ . This allows for the creation of a “marching monopoly”, so called since it continually moves to the right

<sup>39</sup> Rational market participants only transact when they get a net-positive value. Thus, monopolies cannot raise prices without a corresponding drop in demand, and are bounded in how much profit they are able to extract.

of the supply/demand graph, which allows the integrated firm to increase the quantity of goods sold while maintaining prices at monopolistic levels.

Specifically, as depicted in Figure 3, an underlying motive for  $C_m$  to purchase products at  $M$  is in order to get access to  $C_p$  at the upstream market layer  $P$ .<sup>40</sup> In that case, one would expect that growing the size of and increasing access to consumers through  $P$  would increase the value of, and thus demand for  $M$ .<sup>41</sup> Likewise, the nature of  $P$ , as constituting the supply for  $M$  means that increasing the size of  $P$  increases the amount of monetizable interactions occurring through  $P$ , thus shifting the supply curve for  $M$  to the right.

As shown in Figure 4, this creates a cycle, whereby monopoly profits earned by  $M_i$  are reinvested to grow the market for  $P_i$  ever larger, which then increases the market for  $M_i$  and provides more capital to expand  $P_i$ .<sup>42</sup> Note that growing the market for  $P$  might involve finding new market-footholds in entirely new lines of business, so long as these businesses can also be monetized by  $M_i$  or drive demand for  $P_i$ , a strategy known as “platform envelopment”.<sup>43</sup> Even if diseconomies of scale eventually slow the growth-cycle, the titanic scale of the resulting conglomerate, and its control over both  $M$  and  $P$ , likely means that its monopolization has generated significant harm when compared to the alternative where there is no monopoly.

Likewise, it is possible that the growth-over-profit strategy employed by  $P$  would have “disrupted” many industries, to the point where the non-monetized and ordinarily-profitable incumbent competition has been chased out of the markets by aggressive competition by the integrated firm.<sup>44</sup> While this competition could mean short-term gains in consumer welfare as prices are reduced (or dropped to zero), the loss of a competitive market and the harms of monopolization

<sup>40</sup> This is the case with many monetized markets today; ex: advertising where brand owners ( $C_p$ ) want their brand to reach as many consumers ( $C_p$ ) as possible.

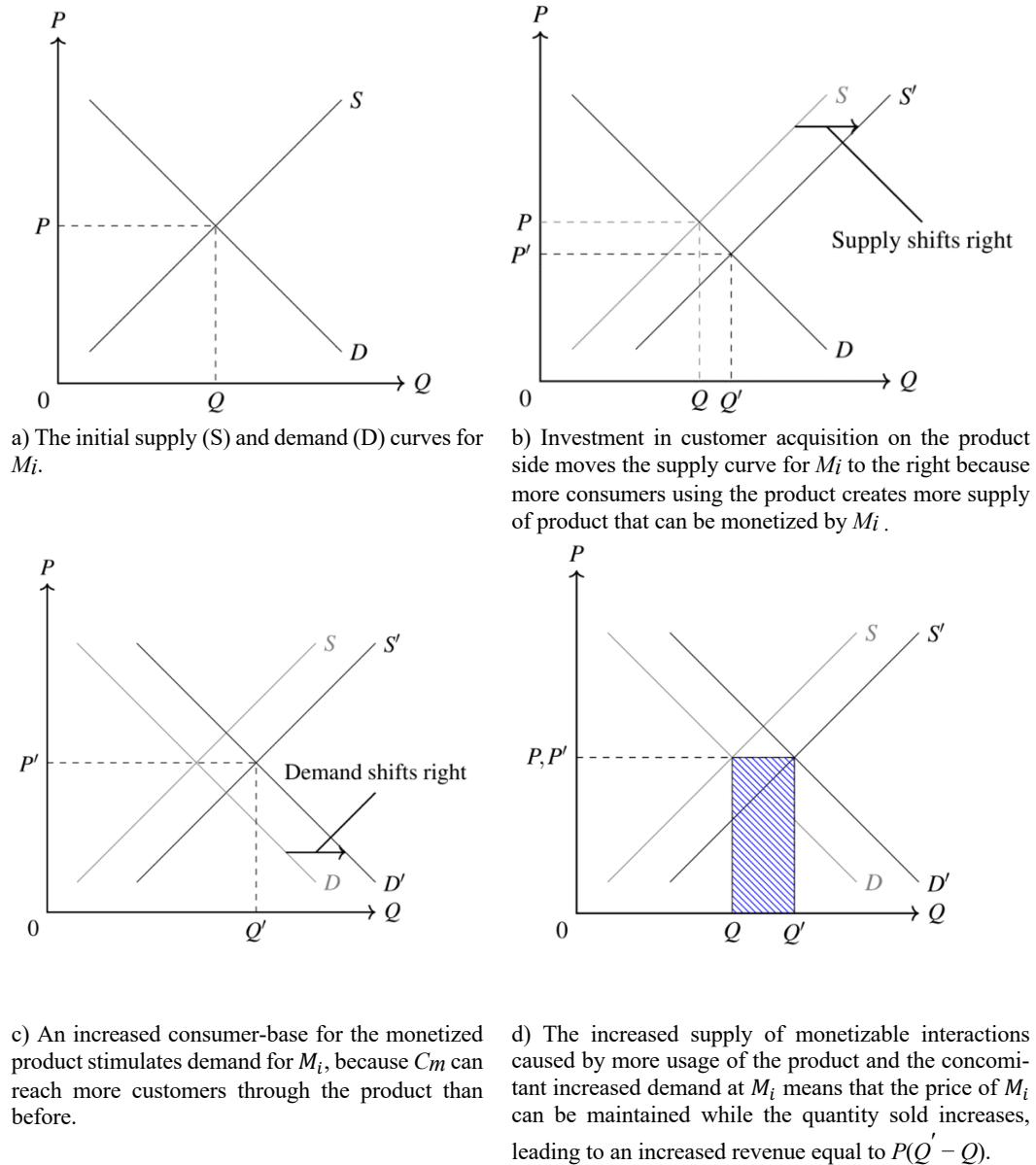
<sup>41</sup> Eisenmann, et al., *supra* note 12; Ferdinand Pavel, *Competition in the Web Search Market – A Report for Microsoft* (DIW Econ, 2009).

<sup>42</sup> This provides an alternate theoretical basis for the empirically observed upward sloping MR and MC curves of FANG firms as observed by Petit, but going further, suggests that in addition to firms having a short-term interest to grow output as suggested by Petit, their long term interests are also aligned with this goal. Nicolas Petit, *Are 'FANGs' Monopolies? A Theory of Competition under Uncertainty* (SSRN Working Paper of 8 July 2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3414386](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3414386).

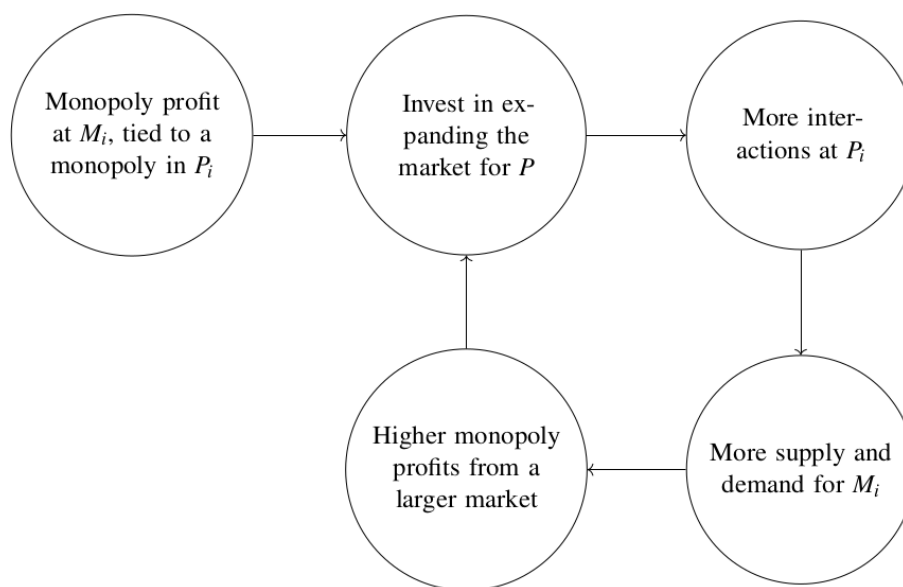
<sup>43</sup> Eisenmann, *supra* note 32; Alexiadis & de Streel, *supra* note 30.

<sup>44</sup> Parker, Petropoulos and Van Alstyne describe how network effects and economies of scale and scope make it hard to dislodge a monetized early mover who has ‘disrupted’ a new market. Hence, conventional firms aiming to make a profit out of the market cannot hope to outcompete a firm with large amounts of funding from an adjacent monetizing market. See Geoffrey Parker et al., *Digital Platforms and Antitrust* (SSRN Working Paper of 17 June 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3608397](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3608397).

in markets  $P$  and  $M$  mean that over time, consumers will likely be harmed no matter what else occurs.



**Figure 4:** A series of price-quantity graphs for  $M_i$  showing the progression of a “marching monopoly” caused by tied product and monetization layers. As long as the monetized product market can continue growing, and the demand at  $M_i$  grows proportionally to that of  $P_i$ , the monopoly can “march” to the right.



**Figure 5:** The monopoly profits at  $M_i$  are used to expand  $P$ , which in turn expands the market for  $M$ , allowing for the capture of more profit and the perpetuation of the cycle.

Thus, there is an incentive for integrated firms to expand the size of the market for  $P$  as much as possible. These incentives can result in their expanding the scope of  $P$  to encompass many seemingly different products (e.g., social networks, search products, mobile phones, app stores, and so on), so long as they all contribute to shifting the supply curve for  $M$  to the right.<sup>45</sup>

Observe that, according to this logic, innovations produced through this process are born from a desire to expand the size of the market, in order to drive demand for  $M_i$ .<sup>46</sup> As such, this growth, while fueled through innovation to some degree, is ultimately aimed not at the creation of consumer welfare, but at maximizing consumer engagement with products in  $P$ , regardless of the eventual outcome for consumers.

#### IV. MARKETIZATION AS A TOOL TO FIX MARKET FAILURES ARISING FROM MONETIZATION

It is clear that monetization benefits but can also harm consumers and businesses alike. The challenge is to specify how monetization can continue to be used while retaining the competitive incentives in markets, thus safeguarding their efficiency.

This task is complicated by the tightly coupled nature of monetized products as described in the model given in Section II. This section aims to first highlight the need for structurally oriented

<sup>45</sup> Feld uses Amazon to describe how entering an increasing number of businesses and tying them together, as possible in the case of monetization, has a snowball effect since the strength of each business in the network is increased when another is added. Harold Feld, *The Case for the Digital Platform Act: Market Structure and Regulation of Digital Platforms*, ROOSEVELT INSTITUTE & PUBLIC KNOWLEDGE (2019).

<sup>46</sup> This logic of endless growth of product lines, regardless of the worth of the product itself, is highlighted by Zuboff. See ZUBOFF, *supra* note 13.

regulatory intervention. Furthermore, it will show the benefits of disintegrating the product used by consumers (products in market layer  $P$ ) from the monetization product that funds their usage (products in market layer  $M$ ). This disintegration creates the possibility for competing firms to be involved in the production of the end-products used by  $C_p$  and  $C_m$  in order to expose the single monopolistic integrated firm to competitive pressure.

As such, it describes *marketization*, which is a market institution able to achieve decoupled monetization through the creation of a competitive market for  $M$ . In turn, this allows  $C_p$  to choose which monetization firm to contract with. Marketizing  $M$  prevents integrated firms from transferring power from  $P$  to  $M$ , and thus arrests their accumulation of market power, the creation of marching monopolies, and the harms associated with both.

## A. THE NEED FOR STRUCTURALLY ORIENTED REGULATION

Structural remedies, such as divestitures, are intended to maintain or restore competitive structure inside a market, and are typically applied as an ex-ante<sup>47</sup> rule in anticipation of problematic conduct on markets characterized by systematically weak competition. Behavioral remedies, in turn, can be applied in any market context and are designed to modify or constrain one-off anti-competitive conduct of firms; they are often applied ex-post and are core antitrust enforcement tools.<sup>48</sup> Structural measures used to be a mainstay of sector-specific regulation (telecoms, gas, airlines, etc.) in the US in the 1970s, but with the advent of Chicago thinking, have been largely superseded by a less-interventionist approach based on laxer behavioral measures.<sup>49</sup>

This paper takes the view that the harms of integrated monetization should be addressed by viewing integrated monetization as a structural problem. Thus, remedies that offer structural solutions should be used. That said, note that this does not preclude behavioral remedies such as mandated interoperability, which act similarly to purely structural remedies, though without actually separating firms.

In itself, structural regulation can ensure that the profit-maximizing incentives of individual firms are aligned with the behavior required to create competitive outcomes for the whole market.<sup>50</sup> Such a regime has huge advantages compared to the Chicagoan *status quo*, because its self-policing nature reduces the workload of competition authorities.<sup>51</sup> This is especially important in the case of digital markets, where it is imperative to avoid a tight coupling of policy to constantly-changing technological advances, as is the necessity for behavioral regulation.<sup>52</sup>

The speed and timing of decisions about a market is important, since if a market is prone to tipping, as Section 2.3 showed for monetized markets, it may have already done so by the time a ruling is made. Structural remedies offer two benefits in this regard. First, uncovering violations of imposed structural remedies requires less technical expertise and legwork on behalf of authorities. Second, when regulators separate out individual businesses from large conglomerates, the

<sup>47</sup> ‘Ex-ante’ and ‘ex-post’ are terms of art in the field of economic regulation; the former is used to denote regulatory intervention before the market has suffered (anticompetitive) harm and the latter – intervention thereafter.

<sup>48</sup> INTERNATIONAL COMPETITION NETWORK MERGER GROUP, MERGER REMEDIES GUIDE (International Competition Network. 2016).

<sup>49</sup> Khan, *supra* note 10.

<sup>50</sup> Frank P Maier-Rigaud, *Behavioural versus Structural Remedies in EU Competition Law*, in EUROPEAN COMPETITION LAW ANNUAL 2013, EFFECTIVE AND LEGITIMATE ENFORCEMENT OF COMPETITION LAW (Philip Lowe et al. eds., 2016).

<sup>51</sup> INTERNATIONAL COMPETITION NETWORK MERGER GROUP, *supra* note 50; Lina M Khan, *Amazon’s Antitrust Paradox*, 126 YALE LAW JOURNAL (2016).

<sup>52</sup> Bar & Sandvig, *supra* note 6.

complexity of each individual business is reduced.<sup>53</sup> As such, structural regulation is likely to be quicker to enforce than behavioral regulation, and so more likely to correct anti-competitive behavior before markets can tip. Even if a competition authority is able to create a timely behavioral remedy, the fast-moving nature of digital economies means that it may be useful for a disappointingly-short period of time.<sup>54</sup>

## B. HOW MARKETIZATION CAN BE IMPLEMENTED FOR MONETIZED MARKETS

The core reason for the market failures of monetized markets, is that markets tip towards the single best product in  $P$ ,<sup>55</sup> which is then improved further due to monopoly profits in the tied market  $M$ .<sup>56</sup> The integration between  $M_i$  and  $P_i$  not only safeguards the dominant position of an integrated firm, but also insulates individual consumers from the costs incurred by their consumption.

This paper proposes to disintegrate  $P_i$  and  $M_i$  in order to create two functionally-separate entities.<sup>57</sup> This could be achieved through structural regulation, for example, by mandating a divestiture in order to create two separate companies, or through behavioral regulation that has structural effects, such as a mandate that products in  $P$  must be interoperable with products in  $M$ .<sup>58</sup> This is possible in digital markets because consumer products are personalized and created in real-time. The aim of such operations is to turn the single profit-maximizing incentive of the integrated firm into the separate and oppositely aligned incentives of  $P_i$  and  $M_i$ . This is achieved by re-arranging the model first presented in Figure 1 (bottom panel) with two key changes in order to “marketize” the monetization; first to have  $P_i$  “charge”  $C_p$  for access to its service (at least in principle), and second, to have  $C_p$  contract with a firm in  $M$  in order to generate revenue with which service charges from firms in  $P$  can be paid.<sup>59</sup> The updated diagram can be seen in Figure 6.

Crucially, market layer  $M$  should be marketized in such a way that  $C_p$  can select from a variety of different firms within  $M$ , each with its own competitive offering. The capacity of consumers to specify which firms participate in the creation of the goods and services they consume is called *delegability*.<sup>60</sup> In order to facilitate delegability,  $P_i$  must allow vertical interoperability between itself and different firms in market layer  $M$ .<sup>61</sup> Thus, one important effect of  $M$ ’s marketization is to afford consumers more sovereignty by allowing them to exercise greater choice

<sup>53</sup> Pat Garofalo et al., *Understanding Amazon: Making the 21st-Century Gatekeeper Safe for Democracy*, American Economic Liberties Project (2020), available at <https://www.economicliberties.us/our-work/understanding-amazon-making-the-21st-century-gatekeeper-safe-for-democracy/>.

<sup>54</sup> In contrast, structural regulation aims to solve competition issues at a higher level of abstraction by targeting the underlying market structure that poses a threat to competition.

<sup>55</sup> See Section 2.3.

<sup>56</sup> See Section 3.1.

<sup>57</sup> Economides and Lianos use data economics to propose similar remedy, which would mandate that digital platforms allow consumers to opt-out of monetization and instead pay a fee for their usage directly. Nicholas Economides & Ioannis Lianos, *Antitrust and Restrictions on Privacy in the Digital Economy*, 29 CONCURRENTS REVIEW (2020).

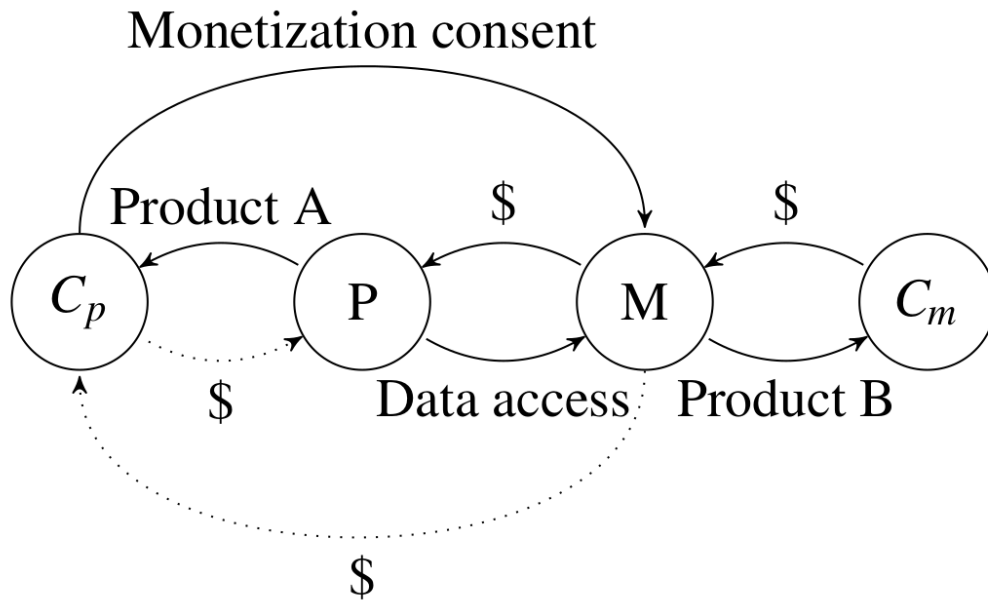
<sup>58</sup> Note that regulation mandating interoperability would likely require auxiliary rules to prevent similar anticompetitive techniques such as self-preferencing.

<sup>59</sup> In the case of digital advertising markets, a thriving market for non-integrated digital ad networks already exists, which suggests that entry by both new and existing firms is likely in the event of marketization. UNITED KINGDOM COMPETITION AND MARKETS AUTHORITY, *supra* note 24, Appendix C.

<sup>60</sup> Svea Windwehr & Christoph Schmon, *Our EU Policy Principles: Interoperability*, Electronic Frontier Foundation (2020), available at <https://www.eff.org/deeplinks/2020/06/our-eu-policy-principles-interoperability>.

<sup>61</sup> Vertical interoperability is defined as “the interoperability of a product, service or platform with complementary products and services.” Wolfgang Kerber & Heike Schweitzer, *Interoperability in the Digital Economy*, 8 JOURNAL OF INTELLECTUAL PROPERTY, INFORMATION TECHNOLOGY & E-COMMERCE LAW (2017).

over the firms with which they do business with.<sup>62</sup> In such a market,  $C_p$  could even pay directly for  $P_i$  and thus avoid being monetized at all. In the context of digital advertising, this gives  $C_p$  back their autonomy (freedom from observation) and seclusion (the right to be left alone) as described by Hui and Png,<sup>63</sup> and solves the dilemma posed by Cooper<sup>64</sup> that some consumers may care little about being tracked online while others may care greatly.



**Figure 6:** A proposed market structure where the end consumer  $C_p$  chooses to consume Product A through  $P$ , but also selects a monetizing agent  $M$  to pay for this service in exchange for monetization consent. Thus,  $P$  “charges”  $C_p$  for access to its service, and  $C_p$  could choose to pay directly (thereby not being monetized). Nevertheless, in practice,  $M$  can generate revenue through  $C_p$ ’s usage of  $P$ , which is used to pay  $P$ ’s usage fee.

As various authors clarify, price-analysis methods used by conventional competition analysis are ineffective at determining the market power in cases where consumers access products and services at zero cost.<sup>65</sup> The marketization of  $M$  solves this dilemma, by ensuring that firms in  $P$  do charge a price for their products, even if consumers themselves do not pay directly. As such, with

<sup>62</sup> The separation of  $M$  from  $P$  makes the system more modular, allowing consumers more discretion in how they consume and enabling them to “create end products that perform functions more closely suited to their idiosyncratic needs.” Melissa A Schilling, *Toward a General Nodular Systems Theory and Its Application to Interfirm Product Modularity*, 25 *Academy of management review* (2000).

<sup>63</sup> Kai-Lung Hui & Ivan PL Png, *Economics of Privacy*, in *HANDBOOK OF INFORMATION SYSTEMS AND ECONOMICS* (Terry Henderschott ed. 2005).

<sup>64</sup> James C Cooper, *Privacy and Antitrust: Underpants Gnomes, the First Amendment, and Subjectivity*, 20 *GEORGE MASON LAW REVIEW* (2012).

<sup>65</sup> Spencer Weber Waller, *Antitrust and Social Networking*, 90 *NORTH CAROLINA LAW REVIEW* (2011); Gal & Rubinfeld, *supra* note 27; JACQUES CRÉMER et al., *supra* note 36.

the introduction of prices to market layer  $P$ , the SSNIP test and other forms of price analysis can more easily be used to determine the extent of market-power that firms possess.

More generally, the hereby proposed marketization model speaks to a fundamental shift in the dynamics of supply chains, triggered by the digital revolution. This shift is well exemplified by Mark Graham who argues that dominant platforms, unlike classical dominant firms, do not control the means of production but rather own the means of consumption. This is a radical shift in market structure that vests great power in them.<sup>66</sup> Hence, given that digital markets shift the core of decision-making from production to consumption, the decision-making power also needs to be shifted away from business and towards the platform user –  $C_p$ . This is also one of the key outcomes of the marketization model presented in this paper.

How this shift can be enacted in practice using the tools of the law will be examined in Section V below; suffice it here it to say that any legislative or regulatory action on platform markets needs to have at its core the enabling of independent/sovereign actions of the user  $C_p$ . Several scholars have already spoken to this important precondition for (legal) intervention, which, however, has not yet completely crystalized in the legislative texts that we examine below.<sup>67</sup>

Finally, and relatedly, sovereignty as a baseline of market design also presupposes users who are ‘aware’ and active in their transactions. How this standard of ‘awareness’ can be achieved on platform markets is a challenge of its own, and has so far been the domain of specialists in consumer protection policy and law.<sup>68</sup> Hence, while the topic currently falls out of the scope of this paper, the challenge it poses for antitrust reasoning shows the need for separate disciplines to communicate with each other in the context of new societal challenges, dominant platforms being a prime example.

## C. HOW MARKETIZATION PREVENTS MARKET FAILURE

This section analyzes the incentives of market participants if  $P_i$  and  $M_i$  are separated out into two functionally separate entities, and  $C_p$  is able to choose which firm in market layer  $M$  to be monetized by; we call this process *marketization*. It shows how marketization prevents monopoly power from being transferred from market layer  $P$  to market layer  $M$ , and how the introduction of competition at market layer  $M$  thins profit margins which cannot then be returned to reinforce growth-over-profit strategies at market layer  $P$ .

Marketization of  $M$  fundamentally changes incentives on the whole market, primarily by ensuring that firms in  $M$  are exposed to direct competition by making the market contestable. Specifically, firms in  $M$  are forced to compete on two dimensions. First they must compete in order to sell to  $C_m$ , who in turn, will be aiming to find firms with low prices but high-quality products. Second, they must compete to attract  $C_p$  to their network in order to gain the “raw material” with

<sup>66</sup> Mark Graham, *Let's Make Platform Capitalism More Accountable*, New Internationalist (13 December 2016), available at <https://newint.org/blog/2016/12/13/making-platform-capitalism-more-accountable>; Ramsi Woodcock, *How Antitrust Really Works: A Theory of Input Control and Discriminatory Supply* (SSRN Working Paper of 1 March 2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3794816](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3794816).

<sup>67</sup> Inge Graef, *Consumer Sovereignty and Competition law: From Personalization to Diversity*, 58 COMMON MARKET LAW REVIEW 471; Philip Marsden & Rupprecht Podszun, *Restoring Balance to Digital Competition – Sensible Rules, Effective Enforcement* Konrad Adenauer Stiftung; Rupprecht Podszun, *Digital Ecosystems, Decision-making, Competition and Consumers – on the Value of Autonomy for Competition* (SSRN Working Paper of 17 July 2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3420692](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3420692); Klaus Wiedemann, *Consumer Autonomy, Competition Law and Data Protection Law in the Digital Economy: On the Relationship between the German Federal Supreme Court's Facebook-Decision, the Revised German Competition Act and the Proposal for a Digital Markets Act* (2021).

<sup>68</sup> Wilhelmsson, *supra* note 73 at 317.

which to create product that can be sold to  $C_m$ .<sup>69</sup>  $C_p$  has incentive to choose a firm at  $M$  which will cover their usage costs of  $P$  through monetization, in the most convenient way for them.<sup>70</sup> Convenience from the point of  $C_p$  could be data protection standards, minimal monetization (e.g., fewer ads), customer service, and so on.

Note that the aim of a remedy which marketizes  $M$  is to ensure that firms in  $M$  compete for the privilege of monetizing customers who are using  $P$ . This paper considers a continuum of regulatory solutions for achieving this end, from “weak” marketization, which would constitute a behavioral remedy imposing interoperability regulations on  $P_i$  so that it can be used by other providers of monetization in the market for  $M$ , to “strong” marketization which would be a structural remedy forcing the integrated firm to divest from  $M_i$ . Stronger forms of marketization are likely to be more drastic, but would have the added advantage of preventing firms from both running and participating on the same market without limitations on unfair conduct.<sup>71</sup>

This arrangement means that firms would find it hard to extract supernormal profits from  $M$ ; if  $C_m$  is overcharged, they could easily move to other monetizing firms, and if they over-monetize  $C_p$ , then  $C_p$  can do the same.<sup>72</sup> This is obviously good for consumers, since  $C_m$  will be charged lower prices (and which may also decrease prices that  $C_m$  may later charge to  $C_p$ ), and  $C_p$  will get higher-quality monetization. Such interoperability could bypass the need for horizontal data-sharing regulation as proposed by various authors.<sup>73</sup> For example, if  $C_p$  were to grant firms in  $M$  access to its data stored by firms in  $P$ , all firms in  $M$  would have automatic access to  $C_p$ ’s data when  $C_p$  chooses to be their customer and consents to be monetized. This means that switching between monetization firms is easy for  $C_p$  provided awareness of this option;<sup>74</sup> assuming firms in  $P$  and  $M$  are vertically interoperable (as explained in Section 4.1), only the legal right to access and process  $C_p$ ’s data need be transferred from the old firm in  $M$  to the new one, after which  $P_i$  will use the new firm for monetization.<sup>75</sup>

Finally, all firms in  $M$  have a high incentive to innovate in order to lower costs or increase quality. Significantly, they are motivated to pass these gains onto consumers in order to gain market-share from their rivals. Such an arrangement differs from the status quo, where the dominant position of incumbents as a result of integrated monetization means that any efficiency gains need not be re-invested into lowering prices or increasing quality; instead, firms may retain efficiencies as profit, thus breaking competitive dynamics.

Likewise,  $P_i$  now needs to compete on its own merits and cannot rely on monopoly profits extracted by  $M_i$  from market layer  $M$ . That said, if it has market power then it may be able to set a

<sup>69</sup> ‘Raw material’ could be  $C_p$ ’s consent to be monetized or access to their data stored by  $P_i$ , etc.

<sup>70</sup> If the new monetization firm does not make enough profit to cover  $C_p$ ’s costs, it could absorb the difference as a loss, or require  $C_p$  to pay the difference.

<sup>71</sup> Dina Srinivasan, *Why Google Dominates Advertising Markets*, 24 STANFORD TECHNOLOGY LAW REVIEW (2019).

<sup>72</sup> Note that ensuring  $C_p$  can easily switch between products in  $M$  could be warranted here. This is known as horizontal interoperability, the benefits of which are described in the Stigler Report and are a key recommendation of the UK’s CMA report. See STIGLER COMMITTEE ON DIGITAL PLATFORMS, COMMITTEE ON DIGITAL PLATFORMS FINAL REPORT (Chicago Booth Stigler Centre for the Study of the Economy and the State. 2019).

<sup>73</sup> Gal & Rubinfeld, *supra* note 27; INGE GRAEF, EU COMPETITION LAW, DATA PROTECTION AND ONLINE PLATFORMS: DATA AS ESSENTIAL FACILITY (Kluwer Law International. 2016); JACQUES CRÉMER et al., *supra* note 36; FURMAN et al., *supra* note 18; Geoffrey Parker et al., *supra* note 46; See also UNITED KINGDOM COMPETITION AND MARKETS AUTHORITY, *supra* note 24.

<sup>74</sup> Hereby we assume the standard of an ‘aware consumer’, which the European Commission works with. See Thomas Wilhelmsson, *The Abuse of the “Confident Consumer” as a Justification for EC Consumer Law*, 27 JOURNAL OF CONSUMER POLICY (2004).

<sup>75</sup> For example, if the end-user  $C_p$  switched advertising providers for their social network, the social network would simply request adverts from the new provider instead of the old one. The new advertising provider could request the data on the consumer from the social network to better target the ads.

monopoly price for its own service. Nonetheless, even if  $P_i$  has market power, there are four factors that make the market power of  $P_i$  on its own less problematic than the market power of an integrated firm controlling both  $P$  and  $M$ .

First, competition in the monetization layer means that  $P$  is less able to leverage its market power into a larger adjacent market (as described in Section 3.1). As such,  $P$  is only able to use its market power to extract supernormal profits in its own market, which is by definition smaller than the combined markets of  $P$  and  $M$ .

Second, while  $P_i$  had previously benefited from surplus funds from monopoly profits at  $M$  (as described in Section 3.4), the marketization of the monetization layer and commoditization of its product means that it must charge its monopoly profits in its own market layer. This change has a leveling effect, since—in order to maintain its dominant market share—it must compete against other firms in its own market which now compete on a more level playing field.

Third, if  $P_i$  pushes prices too high, then firms in  $M$  may struggle to generate enough profit through monetization to fund  $C_p$ 's usage of  $P_i$ .<sup>76</sup> Alternatively, these firms would be forced to aggressively monetize  $C_p$ , to the detriment of their user experience of the product. In this latter case, consumers could be pushed to consider using  $P_i$ 's competitors as to avoid the aggressive monetization required for firms in  $M$  to profit. If competitors do not yet exist (i.e., if  $M$  has been marketized, but  $P$  is still dominated by a single firm), then this provides a stronger incentive for other firms to enter the market for  $P$ , thus also increasing competition in the market for  $P$ .

Finally, in the case where  $P_i$  and  $M_i$  are disintegrated, new competition in  $P$  is free to contract with  $M_i$  in order to compete against  $P_i$ , something not possible when  $P_i$  and  $M_i$  are tied. The converse of this phenomenon also applies, if new competition arises for  $M_i$ . As a consequence, barriers to entry are lowered for both  $P$  and  $M$ , ensuring that consumers can pick the most efficient combination of firms from both rather than choosing from a selection of pre-defined bundles of options.

All of these factors degrade the ability of  $P_i$  to maintain its monopoly, by reconstituting the link between  $C_p$  and price or performance incentives at market layer  $M$ . Thus, the re-introduction of competition at market layer  $M$  can also encourage a similar effect in market layer  $P$  - even if  $P_i$  remains dominant, the reach of its market power is vastly diminished.

## D. AVOIDING INEFFICIENCIES

One obvious concern with structurally-oriented remedies that break up previously-integrated businesses is that they could introduce inefficiencies that degrade the quality of the end products consumed by both  $C_p$  and  $C_m$ . These events could, in turn, reduce the economic value of the products overall; this represents an outcome good for nobody.<sup>77</sup> There are two reasons why this need not be the case.

First, if  $P$  and  $M$  are structurally separated, as outlined in Figure 6, then firms in  $M$  could be granted access to  $C_p$ 's data stored by firms in  $P$  as a condition of monetization (as indicated by the arrow labelled “data access”). Crucially, this means that the same data would be available to firms operating in a post-marketized  $M$  as would be available to  $M_i$  in the integrated firm, and thus

<sup>76</sup> In this case,  $C_p$  could either choose to make up the difference, or would be deterred from consuming  $P_i$ , since they must bear the extra costs. An interesting corollary is that lack of consumer payment for many online services contributes to the high number of spam users and ‘bots’ that characterize many services today. In a post-marketized environment, firms in  $M$  would likely be able to generate far less revenue from bots, and would be less willing to serve them. Thus, such low-quality ‘consumers’ could have to pay for their usage of products in  $P$ , increasing the cost of nuisance actions.

<sup>77</sup> Geoffrey Manne et al., *The Antitrust Case Against Google's Adtech Business* (2020), available at <https://truthonthemarket.com/2020/09/14/the-antitrust-case-against-googles-adtech-business-explained/>.

there is little reason to think that the quality of the monetization would be any lower. On the contrary, in the marketized case, a consumer can use the same monetizing firm across multiple distinct monetized products (e.g., for their social network *and* search engine), which would allow for the productive combination of data from both sources in a way not possible in vertically-integrated markets. This also affords consumers better control over who is monetizing their data, since firms in  $P$  would be prevented from doing so, and firms in  $M$  could be required get explicit consent from  $C_p$ . Furthermore, all firms in  $M$  would have equal access to data gathered by firms in  $P$ , so that they may compete on the merits and efficiency of their information-extraction processes which convert the raw data from  $P$  into valuable information. As such, rather than degrading the quality of monetization, the introduction of competition is likely to drive it ever higher. In addition, products in both  $P$  and  $M$  would retain their internal network effects since they would remain whole, if separate entities.

Second, the incentives are aligned so that it is in the interests of all parties that monetization works well and is of high quality.  $C_p$  is incentivized to choose a monetizing firm in  $M$  which efficiently generates enough revenue to cover the costs incurred by their usage of products in  $P$ , while monetizing them as little as possible. Firms in  $P$  have an incentive to create and maintain robust and comprehensive APIs<sup>78</sup> to provide data access to firms in  $M$ , so that they may efficiently monetize consumers and generate revenue to pay  $P$ .<sup>79</sup> Firms in  $M$  are incentivized to make the most efficient use of, and extract the most value from, consumer data obtained from firms in  $P$ , so they can create higher quality products to sell at a higher price to  $C_m$ . Finally,  $C_m$  will want to purchase products in market  $M$  which have the best price-quality trade-off, thus favoring efficient firms in  $M$ .

Divesting parts of a business can incur significant costs; this forms another source of inefficiencies arising from structural remedies. Though the high cost of structural separation is an unavoidable truth, that cost can be mitigated to some extent by applying behavioral regulation with structural effects such as interoperability mandates between  $P$  and  $M$ , rather than by requiring outright divestiture. This approach also has advantages from a legal perspective because it scores high on proportionality grounds and as such offers a sensible middle-of-the-road solution that we support. What should be unequivocally avoided, however, is a policy of non-intervention that allows firms to “scramble the eggs” by tightly integrating multiple markets ever more closely, until they have built an unassailable platform that would incur ruinous costs if interoperability were to be enforced. Next, we shall turn to the discussion of remedies in current policy debates, and their relation to our marketization concept.

## V. POLICY DEVELOPMENTS AROUND DIGITAL PLATFORMS AND POSSIBLE LEGAL REMEDIES

While the academic discussion on the peculiar nature of platform markets is already several decades old,<sup>80</sup> legislative action to address respective challenges identified by scholars has lagged significantly behind. More specifically, the antitrust enforcement communities of the two most active enforcers on the globe – the US and the EU – only started taking legislative action in the wake of the 2020’s. In particular, as of the summer of 2021, a package of five legislative bills to curb the

<sup>78</sup> Application Programming Interfaces (APIs) are a mechanism for allowing digital services to interact with other digital services, and thus offer access to key data and functionality of a service in order to unlock downstream markets. For an in-depth treatment of interoperability as applied to antitrust, see Chris Riley, *Unpacking Interoperability in Competition*, 5 JOURNAL OF CYBER POLICY (2020).

<sup>79</sup> Integration between different firms using an API to achieve real-time access to data is a standard practice in technology markets as explained in the CMA report.

<sup>80</sup> One of the fundamental papers on the topic dates back from 2003. See Rochet & Tirole, *supra* note 4, at 645.

power of digital platforms<sup>81</sup> stands before the US Congress. Late in the previous year, in mid-December 2020, within the framework of its European Digital Strategy, the European Commission issued the legislative proposals for a Digital Markets Act (DMA) and a Digital Services Act (DSA).<sup>82</sup> In what follows, we comment on these policy developments as they unfolded chronologically and we reflect on their relevance for the model of marketization proposed above.

## A. THE PROPOSAL FOR AN EX-ANTE REGULATORY SOLUTION (THE DMA)

For the EU, the draft DMA and DSA were simultaneously proposed as a joint and multi-faceted intervention package into the digital economy. Because only the former instrument has a direct bearing on the (upcoming) competition regulation of platforms, we will focus exclusively on it within the EU context. The DMA is set to be enforced as an ex-ante regulatory regime that complements ex-post competition enforcement where the latter (i) does not apply or (ii) is ineffective (DMA, recital 5).

The Commission considers two elements of antitrust ineffective, its slowness and its market-definition-based reasoning, when applied on digital markets. The latter always requires delineation of “specific markets” (DMA, recital 5). To counter the latter deficiency, the instrument introduces the threshold category of “gatekeeper,” which—if reached—puts the business within the scope of the DMA, without requiring market delineation (Article 3, DMA). At that point, a number of behavioral remedies automatically start applying to the gatekeeper (Article 5, DMA), and a number of additional ones are imposed after negotiation with the enforcer (Article 6, DMA). The option for structural remedies is also not discounted, but rather presented as a last resort measure (Article 16.2, DMA). It is of note that the Commission’s preparatory work on the DMA (the unrealized proposal for a New Competition Tool) recognized “structural market failures” on digital markets, and the necessity of a tool that allows for intervention *before* competitive harm materializes (“ex-ante”). In this sense, it is strange that the DMA treats the structural remedy option as a last resort. We will now examine this argument, as well as some concrete behavioral remedies under Articles 5 and 6 of the DMA. Finally, we test their congruence with marketization.

### 1. Structural remedies

When one considers policy and regulatory intervention, one needs to be mindful not only of the economic theory but also of the surrounding legal and political considerations. Hence, the Commission’s caution regarding structural remedies might be driven by: (i) the (likely) international character of to-be-designated gatekeepers, (ii) proportionality, and (iii) the competition-inspired nature of its behavioral remedies under Articles 5 and 6 of the DMA.

The first consideration is pragmatic: given that many of the potential gatekeepers under the DMA will likely be international companies, an imposed structural separation of their EU assets only might prove unnecessarily cumbersome. This could trigger concerns of stifling business acumen through regulatory interventions, or even of the EU’s boycotting innovative foreign businesses. Second, proportionality in the application of remedies is a legal issue that enforcers must

<sup>81</sup> American Choice and Innovation Online Act of 2021, H.R. 3816, 117<sup>th</sup> Cong. § 1 (2021); Ending Platform Monopolies Act of 2021, H.R. 3825, 117<sup>th</sup> Cong. § 1 (2021); Platform Competition and Opportunity Act of 2021, H.R. 3826, 117<sup>th</sup> Cong. § 1 (2021); Merger Filing Fee Modernization Act of 2021, H.R. 3843, 117<sup>th</sup> Cong. § 1 (2021); ACCESS Act of 2021, H.R. 3849, 117<sup>th</sup> Cong. § 1 (2021).

<sup>82</sup> Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC COM (2020) 825 Final (Dec. 15, 2020) and Proposal for a Regulation of the European Parliament and of the Council on Contestable and Fair Markets in the Digital Sector (Digital Markets Act) COM (2020) 842 Final (Dec. 15, 2020).

consider in their assessments. Proportionality requires a strict weighing of means and ends, with the caveat that parties should use the least-restrictive means to an end. In the context of remedies, if both a behavioral and a structural option are equally effective, the former will prevail. This consideration could inform the DMA's "last resort" attitude to structural remedies (Article 16.2, DMA).

Our third and last concern is more complex. Since the publishing of the preparatory instruments of the DMA, commentators have observed that the Commission's inventory of envisioned remedies can target behaviors that either a) are currently under review in competition cases or b) heavily draw on competition-based understandings of harm.<sup>83</sup> Hence, concerns of regulatory conflict between the two regimes have pervaded the literature. While ex-post competition and ex-ante regulation use the same remedial toolkit, the Commission has traditionally hesitated to use heavy structural remedies to enforce competition law. This is so because of the EU policy line of a more flexible, effects-based enforcement under the influence of the Chicago School.<sup>84</sup> Since many of the practices automatically outlawed under the DMA's Article 5 are currently under review in competition cases at the level of the CJEU or in Member States, questions and doubts concerning the imposition of structural remedies are apt.

However, as mentioned earlier, Chicago School ideas might have to be qualified in their application to digital markets – an issue that sits at the core of economic analysis, law, and policy in the field.

## *2. Behavioral remedies*

The above concerns regarding structural remedies invalidate neither the need for such measures, nor the question whether the hurdles to contestable markets could be addressed through behavioral remedies instead. Here, we want to remind the reader that our marketization paradigm is also achievable through behavioral remedies that have structural effects; wherever such remedies are listed under the DMA, we could conclude that the proposal is compatible with marketization. Hence, the pertinent question is: do Articles 5 and 6 of the DMA include behavioral remedies that have structural effects?

Many remedies under these provisions aim to make the business models of designated gatekeepers more open, but do not mandate true across-the-board interoperability (the latter being our preference, as explained in Section 4). This is why some scholars have expressed the view that the proposal could have been bolder.<sup>85</sup> The strongest DMA provisions in terms of enforceability<sup>86</sup> that also come the closest to interoperability obligations are Articles 5c), 5 e) and 5 f) of the DMA. In turn, Articles 6.1. c) and 6.1.f), although 'softer' by design, also contribute significantly to this objective. These articles contain obligations that allow business- and end-users of platforms to (more) freely choose their respective channels of commerce and interaction with other agents in the platform business model represented above. For instance, pursuant to Article 5 c) business users are no longer tied to their core platform, but can opt for informing their customers of other ways in which to purchase products and services. Articles 5 e) and 5 f), in turn, prohibit 'tying' by the dominant platform, be it with respect to its own additional services or those of other dominant platforms. Finally, if one looks at Articles 6.1.f) and 6.1.c), a duty to deal is imposed on gatekeepers

<sup>83</sup> Alfonso Lamadrid, To Comment or not to Comment on the Ex Ante Rules for Gatekeepers (Word Press 2020).

<sup>84</sup> The entry into force of Regulation 1/2003 in May 2004 marked the beginning of a 'more economic' or 'effects-based' approach to competition enforcement in the EU.

<sup>85</sup> Victoria Robertson, *IT-Konzerne sind Längst zu Monopolen Aufgestiegen – was Nun?*, DER STANDARD WEB, 2021.

<sup>86</sup> The provisions of Article 5 DMA are 'stronger' than those of Article 6 because the former are non-negotiable and the latter are. Still, please note that Article 6 e) also prevents anticompetitive vertical integration, though is specific to operating systems.

vis-à-vis software applications, software application stores, but also operating systems, and hardware features.<sup>87</sup> Although these provisions stop short of a structural solution, they do produce effects akin to those of structural separation by injecting competition in some (but not all) layers of the platform business model represented graphically above. In this sense, they fall short of achieving true marketization, but they do go a long way.

For instance, the prescription of Article 5c can apply only once there has been mandated entry, ensuring more than one supplier on market  $M$ . However, the DMA does not envision a tool to that effect. Should such a tool exist in future versions of the DMA, the next step would be to use Article 5c to make users  $C_p$  choose providers in  $M$ , by allowing the latter to approach  $C_p$  with information about different offers and where/how they could be “purchased.” Crucially, the success of this model will depend on consumers’ awareness of their monetization and their willingness to control its use. At this juncture, we enter the domain of consumer law and policy, which, as noted above, is beyond the scope of this paper; nevertheless, given the centrality of the consumer for competition in digital markets, this issue certainly needs further scholarly attention.

In summary, the DMA needs greater reinforcement in order to secure true interoperability and inject competition into at least one side of the (two-sided) market, on which zero-price vertically integrated platforms operate. Thereafter, users could effectively apply several provisions of Articles 5 and 6 DMA, as described above.

## B. THE ANTITRUST BILLS BEFORE US CONGRESS

### 1. Structural remedies

The five bipartisan antitrust bills introduced in Congress in June 2021 are very ambitious when it comes to the powers they would vest in enforcers should Congress seal them into law in un-amended form. Although non-tampering with their content is unlikely,<sup>88</sup> it is remarkable that the Ending Platform Monopolies Act goes considerably further than the texts envisioned by the EU and outlaws ‘conflict of interest’ by dominant platforms. The latter term is defined as a situation whereby the dominant platform operator ‘owns or controls a line of business, other than the covered platform’ that, in turn, enables it to discriminate vis-à-vis existing or potential competitors.<sup>89</sup> The bill thus establishes the possibility of ownership unbundling should a platform be designated as dominant (‘covered platform’) under the act and should it fall foul of the ‘conflict of interest’ prohibition. The same remedy is also envisioned in cases of broader practices that fall under the self-preferencing category or when locking in users to additional services provided by the dominant platform.<sup>90</sup>

Therefore, one can designate the Ending Platform Monopolies Act as the most intrusive and significant one in terms of remedies, given that it enables structural separations. In this sense, should it become law in un-amended form, the said act would enable a straightforward implementation of the marketization model we envision. However, should that option turn out

<sup>87</sup> Pablo Colomo, *The Draft Digital Markets Act: a Legal and Institutional Analysis* (SSRN Working Paper of 12 March 2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3790276](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3790276).

<sup>88</sup> Practitioners believe that adoption of the bills in their current form is highly unlikely. See Noah A. Brumfield et al., *Technology Industry Should Watch Closely as the Executive Branch and Lawmakers Set Their Sights on Antitrust*, White & Case Technology Newsflash (30 July 2021), available at <https://www.whitecase.com/publications/alert/technology-industry-should-watch-closely-executive-branch-and-lawmakers-set>.

<sup>89</sup> Ending Platform Monopolies Act of 2021, H.R. 3825, 117<sup>th</sup> Cong. § 1 (2021), Section 2 b).

<sup>90</sup> *Id.*, at Section 2 a) (1) & Section 2 a) (2).

untenable during the legislative process, part of the remaining bills do cater for behavioral remedies that can have structural effects; we discuss these below.

## 2. Behavioral remedies

Three of the four remaining bills currently in Congress tackle – broadly speaking – issues of predatory acquisitions, increasing of pre-merger filing fees and data portability. While tangentially relevant to this work’s main argument, these provisions in the bills cannot be directly used to implement marketization (an exception to this statement are interoperability rules in the ACCESS Act that we comment on below). The last remaining bill – the American Innovation and Choice Online Act – is significant, because it seems to be a ‘softer’ version of the Ending Platform Monopolies Act.

More concretely, while not prescribing structural separations as a remedy to discriminatory and self-preferencing practices (but only for conflict of interest), it still outlaws them with a possibility for civil sanctions (restitution, disgorgement, injunctive relief)<sup>91</sup> that accrue on top of other remedies available under state laws.

Restitution and disgorgement, which by definition have a corrective/restorative effect of a *status quo ante*, cannot be used to implement a *new* structure such as marketization. However, both the FTC and the DoJ have within their toolkit the instrument of the injunction – more specifically, the prohibitory and the mandatory injunction. Both serve as behavior-altering instruments, but the mandatory injunction has a stronger market-ordering effect, and hence is a closer candidate for instituting the mechanism of marketization. The sought-after market ordering effect can be achieved through, for instance, behavior-altering injunctions with structural effects, similar to those proposed in the text of the EU’s DMA described above. Also, a mandatory injunction imposing an interoperability requirement can be used under the American Innovation and Choice Online Act, or platform-specific standards of interoperability can be issued by the FTC under Section 6 c) of the ACCESS Act.

While these remedies do not cater for a full-blown platform separation, they do go a long way in injecting competition into the system. As such, they are viable alternative avenues for securing the outcomes of marketization charted out above.

## C. REVERTING BACK TO EX-POST COMPETITION/ANTITRUST ENFORCEMENT ON BOTH SIDES OF THE ATLANTIC

Because ex-post competition/antitrust enforcement is currently the regime used to curb power on digital markets, and because this will not change overnight in the EU nor in the US,<sup>92</sup> we must discuss how that enforcement can apply to the business models of zero-price vertically-integrated platforms. This discussion comes with the caveat that, although competition policy does not target structural market failures, it can provide both structural and behavioral remedies on a case-by-case basis. To the extent that the US and EU watchdogs have now started competition investigations of all the major digital platform giants, and on the assumption that they will likely opt for behavioral remedies with a structural effect<sup>93</sup> the ultimate effect on the market generated by ex-ante or ex-post

<sup>91</sup> American Choice and Innovation Online Act of 2021, H.R. 3816, 117<sup>th</sup> Cong. § 1 (2021), Section 2.f).

<sup>92</sup> For the EU, see Marc Wiggers et al., Commission’s New Tools for Policing Digital Markets are Shaping up Gradually, but Slowly (Wolters Kluwer 2020). For the US, see Noah A. Brumfield et al., *supra* note 90.

<sup>93</sup> Making the case for structural remedies under competition law is not frivolous. In particular, one needs to show that the remedy envisioned can adequately address the harmful behavior in question. See Vanessa Turner, *Regulation 2: Remedies in Antitrust Cases under EU Competition Law*, 20 JOURNAL OF EUROPEAN COMPETITION LAW AND PRACTICE (2020).

intervention against zero-price platforms may be similar. How can marketization be captured under the US and EU's competition/antitrust prohibitions?

With respect to the concrete abuse of market-power or monopolization offence, under which the practices described above could be caught, the ability of the integrated firm to transfer market power from  $P_i$  to  $M_i$  underpins the harmful business model of connected monetization. In order to prevent this transfer, one could use Article 102 sub-d) of TFEU<sup>94</sup> and the tying doctrine as coined under Section 2 of the Sherman Act.<sup>95</sup> This is the so-called "anticompetitive tying" doctrine, which constituted the legal ground used in ordering Microsoft to unbundle Internet Explorer from its Windows OS in the early 2000s. The theory of harm under tying lies precisely in the fear of the leveraging of power that a company dominant in one market can use to enter and subsequently monopolize another (adjacent) market. As we saw earlier, the theory of leveraging is a prominent concern in the workings of zero-priced platforms. Therefore, tying as an ex-post enforcement strategy could be suitable in "catching" such practices. In particular, it could be argued that by forcing consumers into accepting monetization,  $P_i$  is *making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations*.<sup>96</sup>

One way to address this concern through an appropriate ex-post remedy, would be for  $C_p$  to be given sovereignty over how they pay for  $P_i$ . This could effectively work by introducing the same remedial system as described in the previous section, only using Article 102 TFEU in the EU and the tying doctrine under US antitrust law.<sup>97</sup> Therefore, a solution not dissimilar to the one envisioned by ex-ante regulation is achieved, with the caveat that ex-post competition enforcement works much slower than the envisioned ex-ante regulatory tools. Therefore, to the extent that expediency might be of the essence in digital markets, one might consider using ex-ante regulation.

## VI. CONCLUSION

As markets evolve, it is vital that competition law reacts in kind, so as to preserve the competitive nature of markets and their benefits. This contribution speaks to the debate on appropriate policy and enforcement responses within the realm of competition and regulation in order to achieve that aim in the context of a continuing digital revolution.

This paper shows how current doctrine is not applicable in the context of developments in digital markets, highlighting how zero-priced products break long-standing assumptions about relationships between market participants, and how vertical integration can be truly harmful in those situations. The paper further describes the misaligned incentives for integrated firms in several situations and outlines how the economically rational actions of such firms can result in reduced innovation and consumer sovereignty. Finally, it makes proposals for new regulation that can fix the permanent market failures arising from the integration of monetization services with products used by consumers.

<sup>94</sup> Consolidated Version of the Treaty on the Functioning of the European Union Art. 102 d), June 7, 2016, 2016 O.J. (C 202) 47 (EU).

<sup>95</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).

<sup>96</sup> This concrete phrasing is used in Article 102 d) TFEU. Also note that the only way that  $C_p$  can use  $P_i$  is also by using  $M_i$  so that  $P_i$  is forcing consumers into a contract with  $M_i$ .

<sup>97</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).