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Eyes Everywhere: Amazon's Surveillance Infrastructure and Revitalizing a Fair Marketplace

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Contents

Executive Summary	2
I. Introduction	3
II. Competitor Surveillance	4
A. Amazon Marketplace	4
B. Amazon Web Services	5
C. Fulfillment by Amazon	6
III. Consumer Surveillance	7
A. Amazon Marketplace	7
B. Amazon Alexa	8
C. Amazon Ring	9
D. Amazon's Other Consumer Surveillance Ambitions	10
IV. Harms	11
A. Copying Competitor Products	11
B. Self-Preferencing	13
C. Arbitrary and Exclusionary Rules	15
V. Policy Solutions	16
A. Congress Must Impose Strict Structural Separations of Amazon's Business Divisions	17
B. Congress Must Impose Nondiscrimination and Neutrality Restrictions on Amazon's Operations	18
C. The FTC Must Enact Substantive Rules to Prohibit Exclusionary and Restrictive Contracts.....	19
D. Federal Agencies Must Enforce the Robinson-Patman Act to Prohibit Predatory Pricing and Price Discrimination	19
E. Federal, State, and Private Entities Must Enforce Antitrust Law Regarding Tying and Bundling	21
Conclusion	22
Author & Acknowledgments	23
Endnotes	24

Executive Summary

Since the 2000s, Amazon has deployed an extensive series of technologies to surveil and control its employees.¹ Amazon's conduct has resulted in workers being deterred from unionizing and working under hazardous conditions; created dangerous incentives for employees that directly affect their health and safety; and led to other corporations adopting similar harmful tactics.²

Spying on its workers, however, is only one aspect of Amazon's surveillance operations.³ Amazon also deploys a vast array of predatory tactics and technologies to surveil its users and competitors.

These surveillance operations are at the core of Amazon's business model, allowing the corporation to engage in a vast range of unfair, predatory, and exclusionary practices. Amazon will likely continue to expand its surveillance practices unless federal and state antitrust regulators impose significant structural changes to its operations.

This paper documents the scale and scope of Amazon's consumer and competitor surveillance operations and their adverse effects on competition and individual welfare. It concludes by recommending the following policy actions:

- Congress must impose strict structural separations of Amazon's business divisions.
- Congress must impose nondiscrimination and neutrality restrictions on Amazon's operations.
- The Federal Trade Commission must enact substantive rules to prohibit exclusionary and restrictive contracts.
- Federal agencies must enforce the Robinson-Patman Act to prohibit predatory pricing and price discrimination.
- Federal, state, and private entities must enforce antitrust law regarding tying and bundling.

I. Introduction

In a previous report, the Open Markets Institute detailed how Amazon has implemented a series of practices to monitor, surveil, and control nearly every employee action.⁴ Amazon's conduct has frustrated unionization efforts,⁵ put workers' health and safety at risk,⁶ and led to other corporations adopting similar harmful tactics.⁷

Yet worker surveillance is only one aspect of Amazon's surveillance operations. Amazon also spies extensively on its own consumers, suppliers, and third-party merchants on its platform (also known as third-party dependents or sellers). This capability enables Amazon to engage in various behaviors that fortify its dominant position, to crush and exclude rivals, and to conduct other unfair practices. One thing is irrefutable: Amazon is a surveillance company whose data collection operations are at the core of its business model, no matter its business line.

Amazon's dominance is clear. The corporation's market power includes an almost 50% market share in e-commerce sales,⁸ a 79% market share of video game streaming,⁹ a 70% market share of smart speakers,¹⁰ an 83% share in the e-reader market,¹¹ a 90% market share of e-books,¹² a 41% market share in audiobooks,¹³ a 32% market share in cloud computing,¹⁴ a 14% market share in music streaming,¹⁵ and a 10% market share of groceries.¹⁶

In almost all these markets, Amazon serves both as an intermediary between the customer and other sellers, as well as a competitor against other sellers that use and depend on Amazon's platform. Specifically, as the dominant intermediary in e-commerce, Amazon is incentivized to collect data and spy on its competitors and users to entrench and maintain its commanding market position.

II. Competitor Surveillance

Amazon engages in surveillance of third-party merchants through many different means and channels. This includes harvesting personal and proprietary information through its Marketplace website, its Amazon Web Services cloud computing division, and its Fulfillment by Amazon delivery and packaging service.

A. AMAZON MARKETPLACE

Amazon primarily surveils its third-party merchants (who are also, in many cases, the company's competitors) through its Marketplace e-commerce platform. Both Amazon and third parties sell products on Amazon's Marketplace. Third-party sellers range from an individual reselling a used product to full-scale operations that sell, market, and distribute their products on Amazon's site. As of June 2021, Amazon has 6.2 million sellers and 1.6 million active sellers.¹⁷

Amazon already has huge advantages in e-commerce due to economies of scale and network effects,¹⁸ which make the marketplace it controls more essential to users as it grows bigger. The company's dominance is entrenched enough, for example, to force third-party vendors to surrender control over how their products are displayed on the platform and even over how they are priced and distributed. But Amazon's dominant position as a platform intermediary between sellers and purchasers of products also provides the company with an almost unprecedented and substantial competitive advantage in its ability to collect product and sales data.

Amazon can also exercise its control over the distribution, product display, and even the pricing of third-party goods through contracts that third-party sellers are required to sign before they can sell their merchandise on Amazon's Marketplace. By forcing third parties to sign contracts that relinquish both the distribution and pricing control over their own products, these contracts maintain exploitative and favorable terms for Amazon. For example, Amazon requires its sellers to sign arbitration agreements, which deprive sellers of accessing a judicial forum to seek redress from harms caused by Amazon.¹⁹ Amazon's agreements also mandate that sellers pay the corporation specified fees and commissions. Without signing these agreements, third-party sellers are effectively banned from selling on the world's most essential online marketplace.

Amazon's dominant position as a platform intermediary between sellers and purchasers of products also provides the company with an almost unprecedented and substantial competitive advantage to collect product and sales data. While other digital platforms and traditional brick-and-mortar stores also collect information from consumers, Amazon's scale and dominance make its practices much more harmful. Amazon has what one seller terms "perfect data."²⁰ The corporation collects data from nearly every interaction that sellers and customers have with its platform. According to a former Amazon executive, "Each opportunity to interact with a customer is another opportunity to collect data."²¹ Under the guise of seemingly innocuous and cryptic platform "rules" or "terms of service," Amazon can also require sellers to grant the company access to competitively sensitive information via the data Amazon collects from the seller's product pages, as well as consumer interactions and transactions on Amazon's site.²² Effectively, Amazon's contracts allow the corporation to impose whatever favorable terms it desires, unchecked by market competition.

B. AMAZON WEB SERVICES

Amazon Web Services (AWS) is Amazon's cloud computing division. AWS provides both Infrastructure as a Service²³ and Platform as a Service²⁴ to its customers. These services offer third parties many essential computer services, such as access to computer servers, data storage, and virtual software.²⁵ Cloud computing operations can also provide third parties with ancillary services that allow users of the service to build applications, add features to their hosted site, and use various third-party development tools.²⁶ Cloud computing services also have high switching costs.²⁷ High switching costs exist because both software and hardware must be compatible between the old and new providers.²⁸ Additionally, transferring to a new cloud provider (depending on the firm's size) can take a significant amount of time.²⁹

Amazon maintains the largest market share (32%) of any cloud computing provider, triple the share of its next competitor, Microsoft.³⁰ Essential digital services such as Zoom, Slack, Netflix, Reddit, and Twitter all depend on AWS to host their operations — and would be inoperable without it.³¹ Apple pays Amazon \$30 million a month for AWS services.³² In 2018, Netflix paid Amazon \$500 million for AWS services, despite also being a direct competitor to Amazon's Prime Video service.³³

As the dominant cloud provider, Amazon occupies a unique position to control, direct, monitor, and maintain the modern infrastructure of commerce. As the foundation upon which modern internet companies build their operations, AWS provides Amazon with a nearly unmatched view of internet traffic and application usage.

Amazon has used this view of the internet to copy competitor software so that it can weave its own software into the fabric of the internet, further enhancing developers' dependence on the corporation's services. For example, AWS provides software applications to developers to better manage their services. Amazon monitors what software applications developers are using and then copies them. In one instance, Amazon copied MongoDB, a software tool that helps developers organize data.³⁴ Amazon also copied a software application called Elasticsearch, which searched and analyzed computer data.³⁵ Industry experts have termed Amazon's software-copying practices "strip mining."³⁶

C. FULFILLMENT BY AMAZON

Fulfillment by Amazon (FBA) is Amazon's storage, packaging, delivery, and customer management service offered to third-party sellers. Sellers detail the products Amazon will handle for them to ship and package in Amazon's warehouse; Amazon then charges both per-item and storage fees for the products shipped to customers.³⁷

While it might seem appealing for sellers to leverage Amazon's vast delivering, shipping, and storage infrastructure, third-party merchants who use FBA must pay another price:³⁸ They wind up giving Amazon access to intricate product-demand data as well as other competitively sensitive information on how products are packaged and delivered.³⁹

Amazon can also coerce sellers into signing up for FBA because the company wields its monopoly power to discriminate against third-party dependents who do not use it. Since 73% of all third-party sellers now rely on Amazon's FBA program,⁴⁰ the corporation has substantial bargaining leverage when it threatens to raise prices, remove a seller from its service, or raise prices for its shipping and delivery service, which many sellers now substantially depend on.⁴¹

Evidence has even confirmed that Amazon takes into account those sellers that use its other products to determine which sellers to discriminate against. When researchers reverse-engineered Amazon's Marketplace product search algorithm, they concluded that one of the primary variables that determined if a product had a Buy Box (a digital button to add a product to a user's cart or for a user to purchase an item immediately) was whether the seller of the product was using FBA.⁴²

Amazon effectively forces sellers to comply with their demands and to use the company's services — no matter how arbitrary or onerous their terms are — because sellers cannot risk being removed from (or facing discrimination from)

the most essential platform to sell goods online. Amazon controls almost 50% of the e-commerce market.⁴³ Accordingly, being removed from the platform or violating Amazon's terms in a way that results in disparate treatment from the corporation is effectively a death sentence for a third-party seller.

Amazon is overtly tying its services together to entrench its market position and make its third-party sellers even more dependent on the company. Sellers thus face a Hobson's choice — join FBA or be discriminated against by Amazon.

Because of Amazon's coercive and predatory tying practices, FBA has been tremendously successful for Amazon. Some product categories on Amazon's site are now entirely managed by Amazon's FBA service.⁴⁴

III. Consumer Surveillance

Amazon engages in consumer surveillance primarily through its Marketplace website, Alexa smart speaker, and its Ring smart doorbell, alarm, and camera system.

A. AMAZON MARKETPLACE

Not only is Amazon the world's largest e-commerce platform,⁴⁵ but more than 60% of users' product searches start on Amazon.⁴⁶ Thus, Amazon can obtain a significant amount of information about its users by tracking every aspect of their behavior on its Marketplace platform.

Some of the collected data include a user's product searches, product purchases, products viewed, the time a product is viewed and searched by the user, screen taps on a user's Kindle device, estimated geographic location, contact information, shipping information, the device used by the consumer, a user's clickstream,⁴⁷ a user's purchase frequency, product reviews, product comments, selling history, and referral source.⁴⁸ Amazon has boasted that a consumer's purchase of a single product allows the corporation to collect and analyze 2,000 data points.⁴⁹

Amazon's data collection is so extensive that Werner Vogels, the company's chief technology officer, has stated that "[Amazon] collect[s] as much information as possible[.]"⁵⁰

B. AMAZON ALEXA

Amazon Alexa (Alexa) is Amazon's voice assistant. Alexa-enabled smart speaker devices such as Amazon's Echo product line can play music, answer questions, engage in video chat, and allow consumers to purchase goods through Amazon's Marketplace.⁵¹

As of January 2019, 100 million Alexa devices have been sold.⁵² Amazon has a commanding position in the smart speaker market, with almost a 70% market share as of February 2020.⁵³

The typical uses for smart speakers — including creating a shopping list, playing a song, or setting a reminder — might seem mundane.⁵⁴ However, Alexa devices provide Amazon with a critical pathway to collect data, surveil its customers, and tie many of its services together to force customers to use them.

Amazon surveils consumers with its Alexa product line in two distinct ways. First, Alexa listens, records, and stockpiles affirmative and conscious user voice requests, such as asking Alexa to state the current weather in a user's geographic location.

Second, Alexa has a default setting for the device to continually listen to user conversations and commands.⁵⁵ But the Alexa smart speaker frequently "mishears" users' commands, which accidentally activates the device.⁵⁶ Despite the user not affirmatively requesting the device to activate, Amazon nevertheless captures and records this user information, often including incidental and unrelated conversations to refine its algorithms and push more of its products and services to consumers.⁵⁷ In 2019, Amazon revealed that the corporation indefinitely retains consumer voice data collected by its Echo smart speakers.⁵⁸

Alexa's default always-on setting also facilitates Amazon's ability to tie its services together and strongly encourage consumers to adopt many of Amazon's other ancillary services, such as Amazon Prime or its Ring security system. For example, when a user asks to play music on an Alexa-enabled device, the product uses Amazon Prime Music. While the user can change to a different provider, Amazon's practice of selecting its services as the default provider inhibits competition and choice for consumers to use alternative services that are not a direct part of Amazon's product and service ecosystem.

C. AMAZON RING

Ring is Amazon's internet-connected doorbell and alarm service, which provides users with a video stream of their front door and other home security features such as motion and entry detection.⁵⁹ The product allows consumers to monitor their front door (or anywhere a user places a Ring camera) on their mobile device. The product also notifies users of any movement in the field of vision of the product's camera.⁶⁰

Ring also has a companion application called Neighbors. The Neighbors application allows users to report crimes and other events the user deems suspicious.⁶¹

Between January 2017 and December 2019, more than a million Ring doorbells were sold.⁶² In 2020 alone, Amazon sold 1.4 million video doorbells, almost more than all of its competitors combined.⁶³

Amazon uses the Ring service for a variety of surveillance operations. The Ring service collects every possible point of data it can with its sensors. Privacy researchers discovered that Amazon records every motion the doorbell detects, every user interaction with the application, and the phone model the customer uses to access the application.⁶⁴

Amazon also timestamps all the data points it collects from its Ring devices to create a snapshot of a user's life.⁶⁵ These data points can provide Amazon insights into the life patterns of its users. For example, one privacy expert stated that "Knowing when someone rings your door, how often, and for how long, can indicate when someone is at home. ...If nobody ever rang your door, that would probably say something about your social life as well."⁶⁶ Amazon can use this data for a variety of purposes. The collected data can allow Amazon to train its algorithms to learn when occupants are home to push additional services to them, such as timing package deliveries to customers' doorsteps, or to conduct other market research about users' habits.⁶⁷

Leveraging its Ring product, Amazon now uses vast troves of data it collects from these devices to cultivate partnerships with local governments and police departments. In August 2019, The Washington Post revealed that Ring partnered with more than 400 police departments to obtain user-submitted video recordings.⁶⁸ Police departments now explicitly look for homes with Ring devices to provide them video footage of reported events.⁶⁹ As of January 2021,⁷⁰ Amazon has partnered with more than 2,000 police and fire departments throughout the country, up from 1,200 in April 2020.⁷¹

With the support of state and local governments, Amazon has comprehensive plans to extend its Ring surveillance infrastructure. At its September 2020 hardware event, Amazon announced the release of a new Ring drone. Amazon's new device surveils the owner's property and will be integrated into the company's partnerships with law enforcement agencies.⁷² Recently, Amazon submitted a patent application that will alert the user if the person on camera is deemed "suspicious" by Ring's software.⁷³ Algorithms like this have already been shown to be biased against people of color and women.⁷⁴ Even more troubling is that Amazon is developing its facial recognition technology, called Rekognition, and selling it to law enforcement agencies. In October 2018, it attempted to sell Rekognition software to Immigration and Customs Enforcement.⁷⁵ Amazon will also likely integrate Rekognition into its Ring product.⁷⁶

D. AMAZON'S OTHER CONSUMER SURVEILLANCE AMBITIONS

Amazon, like Apple and Google, now seeks to extend its surveillance empire to the health data market by releasing a fitness tracker that will record a user's health information and a prescription-medicine fulfillment service.⁷⁷

Additionally, Amazon plans on leveraging its fleet of package delivery drones to provide consumers surveillance of their homes.⁷⁸ Ring provides the foundation for Amazon's latest surveillance project, called Amazon Sidewalk. The service consists of Amazon pushing software updates to consumers that share their internet networks with other Amazon Bluetooth-enabled products. Essentially, Sidewalk joins a patchwork of surveillance products and merges them into one network overseen by the corporation. Amazon has provided an option for users to disable this service, but by default the new feature is enabled. Amazon has even submitted a patent application terming this system as "surveillance as a service." The service is intended to surveil people's homes at the user's request for any specified duration.⁷⁹

IV. Harms

Amazon's invasive surveillance practices make it easier for the company to suppress competition and reduce consumer choice by three main means: 1) copying competitors' products, 2) preferencing its own products and services over those of third-party merchants, and 3) imposing arbitrary rules on its dependents.

A. COPYING COMPETITOR PRODUCTS

Amazon has used its surveillance of third-party vendors to decide which markets to enter with its own brands.⁸⁰ Amazon can also use its surveillance infrastructure to determine the optimal price for a product, or even which features to include or exclude by copying a competitor's design.⁸¹ For example, Rain Design, a computer accessory designer, sold a metal laptop stand that became a sleeper hit on Amazon's site.⁸² Amazon soon released its own version at half the price.⁸³ Amazon has copied other famous brands, including the kitchenware retailer Williams Sonoma and shoe designer Allbirds.⁸⁴

Amazon can even use its competitor surveillance to meticulously decide which product markets it enters and which products it develops for its own private brand.⁸⁵ In a notable instance, Amazon recognized how successful consumer batteries were doing on its platform. Amazon soon created its AmazonBasics version of batteries in 2015. After one year, Amazon achieved 93% growth and subsequently accounted for 94% of all batteries sold on its Marketplace.⁸⁶ In the same year, Amazon employed the same tactic with baby wipes, and soon its branded baby wipes quickly became the third-most-successful seller of baby wipes online.⁸⁷

Importantly, third-party sellers do not have access to all of Amazon's collected data and are thus forced by Amazon to compete in a marketplace where they must (at least tangentially) aid Amazon. The company's executives have explicitly stated that the company can use its various services, such as its FBA service, as an avenue to surveil vendors on its platform.⁸⁸

Amazon's AWS service has also been used by the corporation to copy competitor software applications used by developers. Amazon engages in what has been termed by journalists as "strip mining," a practice in which the company copies software available on its AWS platform and then integrates

that software into core features offered on the platform.⁸⁹ For example, in 2019 Amazon copied a software program called Elasticsearch and then deeply integrated its product (which it called AWA Elasticsearch) into its product ecosystem.⁹⁰

By requiring third parties to submit sales, descriptive, and other product data to sell on its Marketplace platform, Amazon can effectively offload its research and development for new products to its competitors taking all of the market risks. Rather than invest its own money into researching and developing a product, Amazon gets a free ride off its competitors' investments by using data that it harvests from its platform to determine which products are selling well. Importantly, with so much collected data, Amazon can determine the underlying reasons why a product is selling well and then copy those features for its own products.

Additionally, Amazon's monopoly control over e-commerce means that after it copies a successful product, the company can then leverage its immense scale as the largest e-commerce platform to push its products to millions of consumers. Copying thus facilitates Amazon's ability to leverage its monopoly power to expand its presence into new markets, while simultaneously deterring new entrants, destroying existing competitors, and entrenching its dominant position.

Amazon's competitor surveillance powers give it an unrivaled monopolistic advantage in many consumer markets. Amazon currently sells over 50% of the products in the clothing, shoes, and jewelry categories and over 30% in the home, garden, and pets categories.⁹¹ As of May 2020, Amazon had 22,617 private label products, triple the number of items in June 2018, and 111 private label brands (i.e., brands owned by Amazon).⁹² Amazon also has more than 300 exclusive brands (brands owned by a third-party but sold exclusively on Amazon).⁹³ The corporation has shown no signs of slowing its expansion of operations into other product categories, undoubtedly facilitated by its extensive surveillance capabilities.

Amazon's copying conduct has attracted the attention of the European Commission, which has now opened a formal investigation into the company's usage of data to undermine third-party sellers.⁹⁴ The commission will focus on "whether and how the use of accumulated marketplace seller data by Amazon as a retailer affects competition."⁹⁵

B. SELF-PREFERENCING

Amazon's control over its Marketplace platform includes the ability to manipulate which products are recommended to users, the search ranking of products on its site, or even which results appear based on individual user search queries. These powers give Amazon the ability to give its own products special positional advantages over those offered by third-party sellers on its website. This practice is called self-preferencing, and it causes a second broad category of harms.⁹⁶

Amazon self-prefers its products and services in several ways. One method is the use of the Buy Box, which is a digital button placed below the price of a product.⁹⁷ It allows a user to add a specific item on a product page to their shopping cart or immediately purchase a product with preloaded shipping and purchase information. The Buy Box is attractive to consumers because it decreases the number of steps a user must perform to make a purchase.

Without a Buy Box on their product page, a vendor's probability of making a successful sale is significantly reduced.⁹⁸ Amazon alone determines what the rules are to obtain the Buy Box and whether to remove it from a product listing.⁹⁹ Researchers have found that Amazon being the seller of a listed product is one of the dominant variables that determines whether a product has a Buy Box.¹⁰⁰

In testimony to the House antitrust subcommittee in 2020, Amazon CEO Jeff Bezos revealed that awarding the Buy Box is also, in part, determined by which products are shipped with Amazon Prime.¹⁰¹ An investigation by ProPublica arrived at a similar conclusion, finding that Amazon not only preferences its own products, but also discriminates against sellers who do not buy additional services from Amazon. About three-quarters of the time, Amazon places its own products and those of companies that pay for its services above those of other vendors, even when the other vendors are offering cheaper prices.¹⁰²

More than 80% of sales on Amazon happen through the Buy Box.¹⁰³ As a result, the corporation wields immense bargaining leverage to ensure compliance with its rules.

Amazon routinely punishes sellers who refuse to follow these onerous and arbitrary rules by removing the Buy Box from their product's selling page or removing a seller entirely from its site. Amazon's flagrant conduct is likely tolerated by third-party dependents because of the corporation's monopoly in e-commerce, which renders them unable to negotiate different contractual terms.

Amazon also engages in self-preferencing through manipulation of its search ranking algorithm to boost its own sales. Because between 43% and 70% of users stick to looking at only the first page of an Amazon search page,¹⁰⁴ the order of products on the search results page essentially determines whether a product will be viewed and potentially purchased by a user or relegated to digital jail and sent to the latter pages of search results. By favoring its own products, Amazon can not only enhance its dominant position and suppress competitors, but also fortify its surveillance infrastructure by artificially promoting the product ranking of its surveillance products (like its Ring security system and Alexa speakers) on its Marketplace.

Lastly, Amazon also uses its hardware products to extend the market presence of its other services. For example, when a consumer decides to make a purchase using Alexa, the device recommends Amazon's in-house products 83% of the time.¹⁰⁵ Alexa products also default to purchasing Amazon's branded products.¹⁰⁶ In essence, Amazon has masked how the corporation benefits from the extensive data it collects from consumers who use the device and how it ties its services together to leverage itself into ancillary markets.¹⁰⁷ In fact, polls have shown that most users do not know how corporations can use harvested data to make predictions and tailor its services to keep users engaged and tied to their product ecosystem.¹⁰⁸

Amazon's self-preferencing is a form of monopolization and unfair competition. When done by a smaller firm, self-preferencing can be desirable as it can increase the capability of a smaller firm to compete, enhance competition between firms, or expand consumer choice. For example, if a grocery store develops its own store brands and gives them favorable product placement on its shelves, this might result in customers having more and cheaper brands to choose from. But when done by a firm like Amazon, which owns and controls the very marketplace infrastructure on which other sellers must operate, self-preferencing seriously skews market outcomes.

Self-preferencing can be especially harmful in the realm of online shopping even when it is not monopolized. Many, if not most, customers on Amazon do not look past the first page of search results.¹⁰⁹ By contrast, consumers are much more likely to engage in slower-paced, more meticulous shopping when they are in a physical store; thus, product placement is not as critical.¹¹⁰

Amazon's self-preferencing is also particularly harmful because it is based on far more extensive and pervasive surveillance. While physical retailers like Walmart collect data on their customers (for example, by requesting a rewards number when customers make a purchase), Amazon requires users to set up an account

to purchase products on its website. The company can therefore, as detailed above, track every single action by a user navigating the site, making its ability to engage in different forms of price discrimination and product-placement discrimination much more powerful.

Lastly, Amazon can engage in self-preferencing more quickly and with far less friction than can conventional stores. If Walmart decided to demote General Mills cereals on the shelves of its brick-and-mortar stores, its employees around the world would have to physically rearrange literally thousands of tons of cereal and do so in a way that would be observable to anyone. Amazon, by contrast, can instantly promote or demote the products of different third-party vendors simply with a mouse click.¹¹¹ In many cases, customers as well as vendors remain unaware when Amazon does this and discover it, if at all, only long after the fact.

C. ARBITRARY AND EXCLUSIONARY RULES

A final broad category of harms caused by Amazon surveillance powers comes from its ability to use data to target rivals with arbitrary and exclusionary rules by which Amazon unilaterally changes the terms of trade and the relationship between itself and the firms that depend on it to exist. For example, in March 2019 Amazon, after what it described as a regular “review of our selling partner relationships,” dropped thousands of suppliers overnight. With less than a day’s notice and without explanation, these sellers found out that their primary purchaser was discarding their products.¹¹²

Amazon can also use its surveillance powers to identify sellers who are struggling to attract sales because of poor search rankings and other factors under Amazon’s control. It can then use this information to effectively require them to buy additional Amazon services, such as ads or fulfillment services, to remedy the very same problem of product discrimination that Amazon has itself created.¹¹³

Finally, Amazon’s power of surveillance gives it so much market dominance that it can impose all kinds of unfair and exclusionary contract terms on third-party vendors not previously mentioned. For example, the company imposes forced arbitration clauses on sellers, which prevent them from accessing the judicial system to redress harms caused by Amazon’s actions.¹¹⁴ Amazon also forced vendors to sign most-favored-nation clauses, which guaranteed that they will always offer Amazon the lowest price for any good they sell.¹¹⁵ And it insists that vendors sign away the right to set their own prices.¹¹⁶

V. Policy Solutions

In a previous report, the Open Markets Institute outlined several reforms to contain Amazon's power as well as that of other monopolies.¹¹⁷ We recommended the following solutions:

- Federal and state legislatures and administrative agencies must enact prohibitions on invasive forms of worker surveillance.
- Congress must enact a statute that legalizes the unionization of independent contractors, secondary boycotts, and other solidarity actions.
- The Federal Trade Commission (FTC) and Department of Justice must amend their merger guidelines to enact bright-line rules to prohibit mergers above a certain size.
- The FTC must ban worker noncompete agreements and class action waivers.

We incorporate all of these solutions into this current report. We also support other non-antitrust solutions such as banning certain aspects of digital advertising and imposing algorithmic transparency, which incorporates public oversight of pricing and ranking algorithms so that the public and other third parties can be assured that these protocols are being administered fairly and are not biased or being manipulated by the host platform. For the purposes of this report, however, we detail antitrust remedies.

Our proposed solutions are guided by principles of what the Open Markets Institute calls fair competition. Fair competition creates a market environment in which firms engage in industrial or commercial activity that ensures the economic liberty and social welfare of workers, market participants, and consumers. A market operating under fair competition principles prevents firms from engaging in exclusionary, predatory, or otherwise unfair conduct that unduly harms these parties.

While no set of policy solutions can be fully comprehensive, our listed solutions attempt to create a marketplace that fosters fair competition, to create a more equitable and deconcentrated business environment, and to decrease the prevalence of dominant firms like Amazon. Additionally, our solutions can apply to industries beyond the technology sector, such as traditional brick-and-mortar retail more generally.

A. CONGRESS MUST IMPOSE STRICT STRUCTURAL SEPARATIONS OF AMAZON'S BUSINESS DIVISIONS

One of the critical variables that enables and incentivizes Amazon's surveillance tactics is its unprecedented vertical integration, or control of companies operating at many different levels of production — from controlling the computer hardware that houses much of the world's digital content to trading in digital marketplaces it owns and controls. To effectively neutralize Amazon's critical surveillance avenues, Amazon must be divisionally broken up so that, for example, one corporate entity no longer retains the AWS division, its Marketplace, and its business as an e-commerce retailer.

Breaking up Amazon vertically would significantly inhibit the corporation's ability to engage in product copying, self-preferencing, and coerced bundling or tying of its various products and services. For example, if Amazon is prohibited from being a seller on its own Marketplace, its surveillance infrastructure would not be able to be used to develop a product that would compete directly against its third-party dependents. Similarly, if Amazon were prohibited from being both a merchandiser and a major, self-dealing player in the package delivery, warehousing, and logistics sectors, its ability to exploit its monopoly power would be much diminished.

Prior to the 1980s, in combination with a strict prophylactic approach to mergers and other exclusionary tactics,¹¹⁸ breaking up vertically integrated companies was a routine tool used by lawmakers and antitrust enforcers to deconcentrate markets.¹¹⁹ Antitrust enforcers and other lawmakers have imposed such structural breakups and other similar line-of-business restrictions in various industries. The telecommunications giant AT&T was broken up twice by antitrust regulators. AT&T was first broken up in 1913, separating telephone services from telegraph service.¹²⁰ Antitrust enforcers broke the company up again in 1984, geographically separating its local telephone service into several regional companies and splitting its long-distance telephone provider into its own company.¹²¹ Federal enforcers also broke up massive corporations such as American Tobacco and Standard Oil in 1911.¹²²

Congress has also legislated structural breakups. For example, in 1935, Congress passed the Public Utility Holding Company Act.¹²³ The act allowed the Securities and Exchange Commission to restructure and deconcentrate utility companies.¹²⁴ In 1933, Congress enacted what became known as the Glass-Steagall Act, which separated commercial banks from investment banks.¹²⁵

In all these cases, antitrust enforcers and Congress recognized that concentrated and unregulated corporate power, especially when it involves vertical integration

up and down supply chains, poses a deep risk to the economy, erodes vibrancy in the marketplace, and endangers the public welfare. It is time to apply the same principles to Amazon.

B. CONGRESS MUST IMPOSE NONDISCRIMINATION AND NEUTRALITY RESTRICTIONS ON AMAZON'S OPERATIONS

Unlike some industries in the economy, the technology sector is uniquely prone to concentration because of factors such as network effects.¹²⁶ As a result, structural breakups might not always be the optimal remedy to neutralize every aspect of Amazon's surveillance operations and market dominance. In such limited cases,¹²⁷ the imposition of nondiscrimination and neutrality regimes is also a complementary remedy.

Amazon and other technology platforms like Google and Facebook are networks that provide essential communications and information services. If the size of these networks simply shrank horizontally, they might be of less utility to users. But if the networks abuse their market power by engaging in predatory practices, such as practicing discrimination on price or terms of service, social welfare is again harmed.

One solution is to impose nondiscrimination and neutrality requirements on large networks such as Amazon. These requirements prevent a corporation from imposing arbitrary rules that harm dependents of the service. All prices and terms of service must be transparent and not subject to favoritism or discrimination.¹²⁸

Historically, the U.S. has applied nondiscrimination and neutrality regulations to a broad range of essential infrastructure and networked industry. Examples include postal delivery,¹²⁹ telegraph companies,¹³⁰ telephone service,¹³¹ railroads,¹³² and airlines.¹³³

In one recent instance, the Federal Communications Commission (FCC) imposed similar common carrier restrictions on internet service providers such as AT&T and Comcast. These regulations became known as net neutrality, and the Federal Communications Commission's rules limiting how internet service providers operated were enacted in some form between 2010 and 2017.¹³⁴

As Amazon has repeatedly shown, the corporation will bend its platforms' rules to privilege its products and services, making any recourse by private businesses nearly impossible. Neutrality and nondiscrimination restrictions would suppress and inhibit Amazon's ability to impose arbitrary decisions on its dependents.

These restrictions would also prevent Amazon from using its platform to self-preference its own products, suppress competition, entrench its market power, and impose coercive terms that enhance and extend its surveillance capabilities.

C. THE FTC MUST ENACT SUBSTANTIVE RULES TO PROHIBIT EXCLUSIONARY AND RESTRICTIVE CONTRACTS

Much of Amazon's power and dominance is also derived from its usage of contracts to create products, such as batteries, to which it can then append its own private label. But Amazon does not actually manufacture its branded products. Instead, the company uses contracts to create relationships with suppliers to produce products, which Amazon then distributes.

These contracts serve as a form of vertical integration that allows Amazon to leverage its dominant distribution network and e-commerce platform to sell products that directly harm its third-party dependents. Amazon thus not only exploits its third-party sellers by extracting their sales and product description data, but also then unfairly uses its privileged surveillance capabilities to develop products that directly (and unfairly) compete with its dependents.

Congress granted the FTC broad substantive rulemaking capabilities to define "unfair methods of competition."¹³⁵ The FTC should enact substantive rules to prohibit the usage of restrictive and predatory contracts that allow Amazon to extend its dominance.¹³⁶

D. FEDERAL AGENCIES MUST ENFORCE THE ROBINSON-PATMAN ACT TO PROHIBIT PREDATORY PRICING AND PRICE DISCRIMINATION

Amazon routinely uses its market power to obtain significantly better terms from its suppliers than are available to other firms, while also engaging in predatory pricing at below cost. Both these practices were once routinely prosecuted under the antitrust laws, but a series of adverse Supreme Court cases and neglect by antitrust regulators have all but eliminated federal enforcement against these corporate behaviors. However, one New Deal-era law still on the books can assist with clamping down on predatory pricing and price discrimination by dominant corporations.

The Robinson-Patman Act (RPA) is a federal statute enacted in 1936¹³⁷ to address the growth of dominant retailers in America.¹³⁸ The RPA prohibits predatory pricing and price discrimination of commodities of like grade and quality "where the effect of such discrimination may be *substantially to lessen competition or*

tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with the customers of either of them.”¹³⁹

Section 3 of the RPA authorizes the government to seek criminal penalties against any person who participates in a transaction that is known to discriminate against a competitor of the purchaser or involves charging “unreasonably low prices” (also known as predatory pricing) or different prices in a different part of the United States “for the purpose of destroying competition or eliminating a competitor.”¹⁴⁰ Section 3 of the RPA also criminalizes the use of “discount[s], rebate[s], allowance or advertising service[s]” that “discriminate against competitors[.]”¹⁴¹ Supporters of the RPA have designated the statute as the “Magna Carta of Small Business.”¹⁴² In essence, the RPA ensured that all firms could compete on equal and fair terms, regardless of their size.¹⁴³

Amazon systematically engaged in predatory pricing to obtain its dominance in several markets such as e-books.¹⁴⁴ Similarly, the corporation’s dominance in the smart speaker market largely results from selling its Echo products below cost.¹⁴⁵

Amazon has also engaged in price discrimination. A notable instance took place in 2004. As Amazon was seeking to expand its market position in the book market, and sought to extract more profits from book publishers, the company engaged in a price discrimination strategy it termed the Gazelle Project.¹⁴⁶ The corporation demanded compensation for the supposed “special benefits” it was offering to publishers by extracting much more favorable pricing terms.¹⁴⁷ Amazon specifically targeted publishers that were already highly dependent on Amazon’s site for sales and to obtain better pricing terms.¹⁴⁸

Such practices are a clear violation of the RPA. While the RPA should also be amended by Congress to clarify some ambiguities in the statute and several Supreme Court cases should be overturned,¹⁴⁹ it is a critical law that can help enforcers to restore fair competition to the marketplace and ensure that dominant retailers cannot extract unfair and discriminatory terms from smaller sellers or engage in predatory pricing.

E. FEDERAL, STATE, AND PRIVATE ENTITIES MUST ENFORCE ANTITRUST LAW REGARDING TYING AND BUNDLING

Amazon has repeatedly used a business practice known as tying, which can be defined as coercing customers to buy products they do not want as a condition of selling products they do want. One example of tying is Amazon's practice of coercing third-party vendors on its Marketplace platform into using its FBA service — which also has surveillance technology baked into its services.

The landmark House Report on Competition in Digital Markets released in October 2020 stated that Amazon's products and services are combined in a "highly integrated manner."¹⁵⁰ Amazon's practices allow the corporation to use its dominance in one market and extend it into another and enhance its surveillance capabilities.

The Supreme Court has consistently held that tying can be a *per se* violation of the antitrust laws when the seller has "appreciable economic power" in one of the product markets.¹⁵¹ Courts have affirmed strict condemnation of tying because the practice causes multiple market harms. Tying can increase entry barriers for future competitors, destroy existing competition, and reduce purchaser choice and freedom to buy alternative products and services.¹⁵² Importantly, a *per se* tying violation does not require a litigant to show a violator has monopoly power in a market, which can be an intensive and difficult process.¹⁵³ Instead, antitrust enforcers merely need to show, in addition to "appreciable economic power," that a violator is forcing the purchase of two or more separate products or services it has in the tying market and that the arrangement affects a substantial volume of commerce in the tied market.¹⁵⁴

Antitrust enforcers, including the Department of Justice and the FTC, should bring tying cases against Amazon. Doing so would take advantage of favorable controlling Supreme Court precedent to stop Amazon's predatory conduct.

VI. Conclusion

Amazon's ability to surveil consumers, competitors, and workers is a fundamental aspect of its market power. Without significant change, Amazon's surveillance will continue to entrench its dominance, suppress and distort competition, manipulate markets in its favor, and harm the welfare of market participants. Fortunately, many proven policies are available to constrain Amazon's dominance and structure e-commerce markets so that they serve all stakeholders and promote the innovation, economic liberty, and prosperity upon which our democracy depends.

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