

# EXHIBIT F

**Price Parity Clauses and Product Prices:  
Evidence from Amazon and eBay**

Yu Song

University of Michigan

yyusong@umich.edu

**Abstract**

Price parity clauses (PPCs) have been adopted by many digital platforms, raising antitrust concerns. We study how Amazon's removal of PPCs in March 2019 affects product prices on Amazon and eBay. We find that, after the removal, products in categories with greater differences in commission rates between Amazon and eBay experience greater price reduction on both. The price reduction on Amazon is greater for products sold directly by Amazon than for those sold by third parties. These results suggest that Amazon's removal of PPCs increases platform competition and reduces product prices.

**Keywords:** price parity clauses, Amazon, eBay, platform competition

## 1. Introduction

With the growing popularity of digital platforms, significant regulatory concerns have emerged, ranging from competitive price parity clauses (PPCs) (Baker and Scott Morton 2018) to consumer privacy (Koutroumpis et al. 2020) to the classification of platform participants as employees versus contractors (Hagiu and Wright 2019) to the enforcement of data portability (Parker et al. 2020).

This paper examines the use of PPCs by dominant platforms. These PPCs—also termed most favored nations (MFN) provisions—prevent third-party sellers or service providers from charging lower prices on alternative channels than on the focal platform.<sup>1</sup> For example, when Amazon adopted PPCs, the total price of an item listed by a seller on Amazon was required to be at or below the price at which the seller was offering that item on any other online sales channel. Such a policy draws attention from regulators because it could reduce competition, a possible violation of Section 2 of the Sherman Act.<sup>2</sup>

In the past few years, PPCs have been the subject of antitrust enforcement in multiple European countries. For example, the European Commission investigated the practice of Amazon in Europe, and ended its PPCs throughout the European Union in 2013.<sup>3</sup> In December 2018, Senator Richard Blumenthal recommended that the US Department of Justice and the Federal Trade Commission investigate whether the leading platforms violated antitrust rules by adopting PPCs. In March 2019, presidential candidate Elizabeth Warren proposed to break up tech giants Amazon, Facebook and Google, and suggested that Congress should pass a law banning large companies from operating

---

<sup>1</sup> There are two types of PPC: wide and narrow. Wide PPC prevents the provider from setting a lower price on all other platforms, including the provider's own website; narrow PPC prevents the provider from setting a lower price on its own website, while leaving prices on other platforms unrestricted. This paper focuses on wide PPC.

<sup>2</sup> See 15 U.S.C. §§ 1-2 (2012). Federal Trade Commission (FTC) enforcement actions would be brought under Section 5 of the FTC Act, applying Sherman Act principles. See 15 U.S.C. § 45 (2012).

<sup>3</sup> Jacob Kastrenakes (2013), "Amazon lifts EU restrictions barring merchants from setting lower prices elsewhere", *The Verge*, August 31, <https://www.theverge.com/2013/8/30/4676520/amazon-removes-eu-rule-requiring-lowest-price-parity-online>, accessed September 2020.

and owning participants on the same online platform.<sup>4</sup> Against this backdrop, Amazon decided to stop preventing third-party sellers from setting lower prices on other websites.<sup>5</sup>

In this paper, we investigate the impact of Amazon's removal of PPCs on product prices on Amazon and eBay. Amazon is a retailer itself and also operates a marketplace in which third-party sellers can sell their products directly to Amazon customers. Amazon charges third-party sellers a commission for each transaction. The commission rate—a percentage of the product price—varies across product categories.<sup>6,7</sup> Many sellers sell their products on both Amazon and eBay, one of Amazon's biggest competitors. eBay charges lower commission rates in many product categories than Amazon<sup>8</sup> and has not imposed PPCs.

We collect data for products on Amazon and eBay from Keepa.com, a market research firm that tracks historical product prices on these websites, to examine how the removal of PPCs affects product prices on Amazon and eBay. The removal of PPCs presents an exogenous shock to third-party sellers on Amazon and eBay. In addition, while Amazon as a retailer may have anticipated the removal of PPCs, it has no incentive to change prices for products it sells before the official removal.

Our identification strategy exploits varying treatment intensity as a result of the differences in Amazon and eBay commission rates across product categories. We also ensure that the

---

<sup>4</sup> Elizabeth Warren (2019), "Here's how we can break up Big Tech," Medium, March 9, <https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>, accessed September 2020.

<sup>5</sup> David McCabe (2019), "Amazon to end price practice critics said could violate antitrust law," Axios, March 11, <https://www.axios.com/amazon-price-practice-antitrust-elizabeth-warren-d802ba71-d376-4316-b9dc-cca4540959ac.html>, accessed September 2020.

<sup>6</sup> See Amazon's commission rates for different categories at <https://sellercentral.amazon.com/gp/help/external/200336920>, accessed September 2020.

<sup>7</sup> For example, one company might sell an office chair at the final price of \$100 on Amazon. An office chair is in the category of office products, which has a commission rate of 15%. Thus, this company needs to pay \$15 to Amazon as commission, whereas Amazon itself selling the same chair does not need to pay commission.

<sup>8</sup> See eBay's commission rates for different categories at <https://www.ebay.com/help/selling/fees-credits-invoices/selling-fees?id=4364>, accessed September 2020.

commission rates on both sites stay the same for these product categories during the study period. When products have higher commission rates on Amazon than on eBay, then after Amazon removes its PPCs, third-party sellers would be more likely to reduce their prices on eBay because their marginal costs of selling on eBay are lower. We take advantage of this varying treatment intensity to apply a difference-in-differences (DID) approach to examine how Amazon's removal of PPCs affects product prices. This strategy allows us to control for common shocks to product prices during our study period.

Our analysis reveals that Amazon's removal of PPCs results in a greater price reduction on eBay for products that are subject to greater differences in commission rate between Amazon and eBay. The price of products on eBay decreases by 0.72 percent when the commission rate on Amazon is 1 percent higher than that on eBay. We also find that Amazon prices decrease by 0.63 percent when the commission rate on Amazon is 1 percent higher than that on eBay; this result is consistent with the two platforms being close competitors. The price reduction on Amazon is more pronounced when the products are sold directly by Amazon than by its third-party sellers, suggesting that Amazon is more responsive to price changes in the external environment.

This study contributes to the literature on PPCs. On the one hand, scholars point out that PPCs can benefit platforms, retailers, and customers. For platforms, theoretical studies have shown that PPCs can help resolve hold-up problems (e.g., Gans 2012, Ezrachi 2015) and prevent showrooming, a type of free-riding that undermines the platform's ability to operate (Baker and Scott Morton 2018, Wang and Wright 2020). For retailers, PPCs may streamline the way inventory is managed and price is determined across channels, since the retailer only needs to set one price for all intermediaries. For customers, PPCs reduce possible perceptions of unfairness. Many companies use dynamic pricing—setting the price based on individual-level information such as a

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.