Pricing Algorithms and Antitrust Enforcement: More Scrutiny?

Antitrust Magazine

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Summary

- Antitrust enforcers are ramping up efforts to challenge the use of pricing algorithms as violations of antitrust law.
- Plaintiffs can succeed on their claims if they can establish that the defendants have market power in the relevant market and that the use of these pricing algorithms resulted in harm to consumers in the form of increased prices.
- Defendant platforms can win by establishing that their pricing algorithms have several procompetitive benefits including increased efficiencies and more accurate pricing that is aligned with the market and competitors.

Pricing algorithms use machine learning and artificial intelligence to evaluate multiple variables including supply, demand, and competitor pricing and adjust prices in real-time.

These algorithms can be used to price match competitors or to calculate rental prices. Increasingly, these algorithms play an important role in determining the prices consumers pay for goods and services.
In advertising, pricing algorithms are used to adjust the price of an advertisement by analyzing customer behavior and predicting future market trends. These algorithms can be used to rank content and help determine an advertisement's position, which has a significant impact on the success of the

Control over a pricing algorithm can translate into billions of dollars in digital advertising revenue. In the United States, for instance, digital advertising spending is expected to hit $298.4 billion in 2024, which is a 10 percent increase from $271.2 billion in 2023.

As a result, pricing algorithms have a significant impact on the economy.

But what is the status of pricing algorithms under antitrust laws? Companies can use pricing algorithms for some very pro-competitive purposes: to determine optimal prices, increase efficiency, or maximize profitability.

But the use (or rather, misuse) of pricing algorithms can implicate Sections 1 and 2 of the Sherman Act and Section 5 of the FTC Act. As the FTC recently wrote, "[p]rice fixing by algorithm is still price fixing."

Early Cases Involving Pricing Algorithms

Very few cases that have been decided to date have squarely addressed when the use of pricing algorithms constitutes an antitrust violation. The few cases that have addressed the use of pricing algorithms have been limited to the use of these algorithms to set prices in violation of Sherman Act Section 1.

Monopolization cases involving algorithms are also rare and have been difficult to prove. For example, in 2013, the FTC declined to bring allegations against Google for its algorithm that allegedly self-preferenced Google Shopping and demoted links to competing shopping services.

After opening an investigation in 2012, the FTC unanimously decided to close the investigation, issuing a mere four-page closing statement. Critics argue that the FTC missed an opportunity to bring allegations against Google for its exclusionary conduct—which may have obviated the perceived need for more recent cases brought against the tech giant. The use of algorithms did come up in the *United States v. Google* search trial, but the issue was dismissed prior to trial. In August 2023, the D.C. federal district court granted summary judgment in favor of Google on the claim that Google was unlawfully favoring its own specialized "vertical" websites (such as shopping or hotels) over those of rivals.

Specifically, plaintiffs alleged that Google had unlawfully altered its search engine results page to increase visibility for its own products and make search results for vertical providers —such as Amazon or Etsy and Expedia or Booking.com—less visible. Calling the alleged harm "largely theorized," Judge Mehta threw out the claim stating that "there is no record evidence of anticompetitive harm in the relevant markets resulting from Google's treatment" of Specialized Vertical Providers ("SVPs"). Judge Mehta's opinion suggests that establishing anticompetitive effects from using algorithms for self-preferencing can be difficult—at least where the theory of anticompetitive harm is speculative.

Despite limited precedent on these issues, antitrust enforcers have ramped up their efforts in the last two years to challenge the use of pricing algorithms, and they have brought landmark cases targeting these tools under Sherman Act Section 1, Sherman Act Section 2, and Section 5 of the Federal Trade Commission Act. Antitrust enforcers, however, may face an

uphill battle in demonstrating that the anticompetitive effects of these algorithms outweigh their procompetitive benefits, particularly in its case against Google, which has twice before escaped liability related to any self-preferencing resulting from its algorithms.

Current Cases Involving Pricing Algorithms

In 2023, the Department of Justice, the Federal Trade Commission, and several state attorneys general brought three cases challenging the use of pricing algorithms: *United States v. Google*, *FTC v. Amazon*, and *District of Columbia vs. RealPage*.

In the cases against Google and Amazon, the government has alleged that the defendant is a monopolist with market power. Google and Amazon have responded that their use of pricing algorithms is pro-competitive because the algorithms allow prices to automatically adjust to market conditions, which oftentimes results in lower prices for consumers. They have further asserted that there can be no violation of Sherman Act Section 2 where the maintenance of monopoly power is the consequence of a superior product, business acumen, or historical acumen. In other words, Google and Amazon have argued that they offer superior products that are pro-competitive and that their popularity is the result of pure competition on the merits.

In *RealPage*, the government has alleged unlawful information sharing under Sherman Act Section 1. Like Google and Amazon, defendants in *RealPage* claim that their pricing algorithm is pro-competitive. Although analyzed through different lenses, each of these cases provides lessons on how to use pricing algorithms and when such use may lead to antitrust liability. The following sections will address each of these cases in turn and analyze the application of the antitrust law to the use of these pricing algorithms.

Sherman Act Section 2: U.S. v. Google

In January 2023, the Justice Department and a group of state attorneys general filed a complaint against Google in the Eastern District of Virginia to challenge Google's anticompetitive conduct in advertising technology.

The Department seeks treble damages for losses sustained by federal government agencies that overpaid for web display advertising. More significantly, however, the Department seeks equitable relief in the form of an unwinding of Google's 2008 purchase of the ad-serving company, DoubleClick, and a divestiture of Google advertising exchange, AdX. Both divestitures could have significant ramifications for the digital advertising market, and this requested relief comes as Google is simultaneously facing equitable remedies in *Epic v. Google* and liability in the *US v. Google* search monopolization case.

The Department's case centers around Google's advertising technology. In 2000, Google entered the display advertising market with the launch of Google Ads.

In 2008, Google acquired DoubleClick, which became the industry leading publisher ad server. The FTC reviewed but declined to challenge the proposed acquisition. Since then, Google has positioned itself as the "buyer, seller, and auctioneer of digital display advertising." In a lengthy complaint, the Department alleges that Google now holds an illegal monopoly over digital advertising technology and that it uses this monopoly to direct the flow of digital advertising dollars to Google's own products.

Specifically, the Department claims that Google has manipulated its pricing algorithm on Google Ads to distort prices on its ad exchange known as AdX, which has caused advertisers to overpay.

Additionally, the Department alleges that Google has manipulated AdX to allow Google to change its bids in response to price changes, but prevents competitors from doing the same, which self-preferences advertisers toward Google's own ad exchange. This conduct has allegedly increased Google's profits by 30 percent.

To prove its claims, the Department will need to prove two elements. First, it must show that Google has market power in the relevant market for digital advertising. Second, the Department must show that Google achieved monopoly power using anticompetitive conduct designed to exclude rivals. The Department will need to show, therefore, that Google's pricing algorithm changes and self-preferencing behavior constituted a willful maintenance of that monopoly power as distinguished from growth, development, and innovation.

The Department alleges that there are three markets at issue: (1) the publisher ad servers market (DoubleClick), (2) the ad exchange market (AdX), and the advertiser ad networks market (GoogleAds). The Department alleges that Google has 90 percent market share of the market for publisher ad servers,

more than 50 percent of the ad exchange market, and 70 percent of the market for advertiser ad networks. Most circuit courts generally require at least 50 percent market share to infer the existence of monopoly power with some, including the Fourth Circuit, requiring 70 percent or higher.

Market definition is poised to be a significant issue at trial and could inform how courts define the market in future cases that consider a company's use of pricing algorithms.

In its motion to dismiss, Google argued that Plaintiffs improperly excluded video and mobile app ad publishers from their market definition. Judge Brinkema denied the motion, finding that the market definition arguments raise fact-specific issues that cannot be resolved at the motion to dismiss stage. In its motion for summary judgment, Google reiterated its position that plaintiff's market definition improperly excludes similar ad tech tools by Amazon and Meta, which Google argues compete with Google's own ad tech tools. Judge Brinkema denied the motion.

This case will be the first significant test of the Department's antitrust theory as applied to pricing algorithms as a tool for alleged monopolization. In addition to challenges in establishing the market definition, the Department of Justice will need to prove that the use

of these pricing algorithms harmed ad tech customers in the form of higher prices and ad tech rivals who struggled to enter the market or struggled to compete. Arguments on these issues will be key to assessing liability and may prove difficult where algorithms are designed to simply optimize for supply and demand. A jury trial in the case is set for September 9, 2024.

FTC Act Section 5: FTC v. Amazon

The Federal Trade Commission and various state attorneys general have filed another pricing algorithms case involving Amazon's use of pricing algorithms to price match competitors.

In September 2023, filed a complaint alleging that Amazon monopolized online retail sales. The FTC alleges that Amazon has implemented an algorithm "for the express purpose of deterring other online stores from offering lower prices." The algorithm, known as Project Nessie, is used to discipline rivals by copying others' pricing moves in an effort to deter rivals from attempting to compete on price altogether.
The complaint estimates that the pricing algorithm has generated more than $1 billion in excess profit for Amazon.

Although Amazon's use of the algorithm is currently paused, the FTC alleges that Amazon could turn it back on at any moment when scrutiny recedes. The conduct related to Project Nessie is a standalone count (Count IV), which alleges that the use of Project Nessie is an unfair method of competition in violation of Section 5(a) of the FTC Act.
In its motion to dismiss, Amazon claimed that "[e]ach policy challenged by the Complaint is facially procompetitive, and Plaintiffs' efforts to obstruct such procompetitive conduct would chill retail competition and harm consumers."

In opposing Amazon's motion to dismiss, the FTC asserted that "Amazon uses an 'extensive surveillance network' to track prices online and 'immediately cop[ies]—but never undercut[s]' other stores' prices, 'automatically increas[ing] its Retail price to copy' other online stores or marketplaces, even if that means higher prices for Amazon shoppers."
To prove this claim, the FTC will need to establish (1) that Project Nessie is "coercive, exploitative, collusive, abusive, deceptive, predatory, or involve[s] the use of economic power of a similar nature . . . [, or is] otherwise restrictive or exclusionary, depending on the circumstances," and (2) that the conduct "tend[s] to negatively affect competitive conditions."

Notably, Section 5 does not require a separate showing of market power or market definition, which is required for other antitrust statutes. For this reason, this claim may be easier to establish that a similar claim brought under the Sherman Act.
Plaintiffs could struggle to prove the second prong of Section 5. The fact that the algorithm is currently paused may make it more difficult to establish anticompetitive harm because the evidence of exclusionary conduct is largely theoretical, which was the primary obstacle for

the Department's earlier claim against Google regarding its use of algorithms to allegedly self-preference.

Amazon can be expected to continue to argue that use of pricing algorithms is pro--competitive and more accurately prices products to reflect market competition. Amazon may also assert that its platform is pro-competitive because it results in increased efficiencies for consumers (e.g., two-day shipping) and, in some cases, lower prices for consumers.
A trial in the Amazon case is set for October 13, 2026.

This timeline suggests that the outcome of the *U.S. v. Google* trial could shape the contours of this trial, including how the FTC frames its pricing algorithm allegations.

Sherman Act Section 1: District of Columbia v. RealPage Inc.

Antitrust enforcers have also recently brought claims challenging the alleged use of pricing algorithms to fix rental prices in violation of state law and Sherman Act Section 1.

On November 1, 2023, the D.C. Attorney General filed a suit against RealPage Inc. and multiple residential property companies alleging violations of the District of Columbia's antitrust statute. The complaint alleges that these companies unlawfully agreed to delegate rent-setting pricing decisions to RealPage, which is a pricing software that allows clients to "[o]ptimize rents to achieve the overall highest yield, or combination of rent and occupancy, at each property."
RealPage's software uses algorithms to analyze vast amounts of proprietary non-public pricing data and estimate supply and demand.

Landlords and property managers use RealPage's rent-setting software to automate rent-setting calculations, which plaintiffs argue has driven double digit rent increases and outperforms the market. In exchange for use of RealPage's rent-setting software, landlords "agreed, in writing, to share competitively sensitive data for RealPage to feed into its rent-setting [Revenue Management] Software." Although these landlords typically competed for tenants in the rental housing market, they now work together for their collective benefit at the expense of renters."
After the D.C. Attorney General's case was filed, nearly 40 private cases followed. These cases have been centralized in multidistrict litigation in Tennessee federal court, and they similarly accuse RealPage and large landlords of violating Sherman Act Section 1 through its revenue management algorithm.

The *RealPage* cases have also prompted Arizona's Attorney General to file a similar suit against RealPage and several landlords. Arizona's Attorney General has also urged the FTC to investigate RealPage's alleged anti-competitive practices. Most recently, the North Carolina AG has initiated a probe into RealPage over similar antitrust concerns.

In the MDL case, on November 15, 2023, the Department of Justice filed a Statement of Interest and Memorandum of Law arguing that the complaints adequately alleged violations of Section 1 of the Sherman Act.

In its statement, the Department told the court that Sherman Act Section 1 applies with "full force to schemes involving pricing algorithms." The Department further stated that the two complaints plausibly alleged concerted action and urged the court to deny the motion to dismiss and apply the *per se* rule to the allegations.

In December 2023, consistent with the Department's position, U.S. District Judge Waverly D. Crenshaw Jr. denied defendants' motion to dismiss. The court found that "Plaintiffs have plausibly alleged that Defendants engaged in parallel conduct when they each became RealPage RMS clients and began prioritizing raising rent prices over decreasing vacancy rates."

The court, however, handed defendants a partial win when it found that "application of the *per se* standard is not appropriate." The case will now proceed to discovery, and the court will apply the rule of reason standard of analysis.

These *RealPage* cases will test whether purchasing and using pricing-algorithm software that includes market data from competitors is sufficient to constitute an "agreement" under Sherman Act Section 1. To shore up the alleged agreement, plaintiffs will likely cite to RealPage's marketing materials, which allegedly "touted" RealPage's ability to "raise rents in concern," "facilitate collaboration among operations," and "track your competition's rent with precision."

Plaintiffs will also likely cite to the resulting high rental prices as direct evidence of an agreement. Plaintiffs may struggle to establish that marketing materials and resulting price increases constitute an unlawful agreement. A trial in the *RealPage* case likely won't take place until late 2027.

Conclusion

These three cases illustrate the various strategies antitrust enforcers are using to challenge pricing algorithms. Although antitrust enforcement agencies have had limited success in combating discriminatory use of pricing algorithms to date, enforcement can be expected to continue and possibly increase.

In addition to a focus on Big Tech firms, antitrust enforcers have warned that no matter their size, firms using pricing algorithms must comply with the antitrust laws. In February, the Department of Justice signaled that it will start to focus on smaller companies.

A Department official stated that,"[p]articularly in this new era of artificial intelligence and algorithms, any time antitrust enforcers hear that competitors are exchanging competitively

sensitive information, particularly through third-party algorithms, it's going to make us perk up."

Firms should carefully monitor the outcomes of these three cases, which can be expected to significantly shape the pricing algorithm landscape and determine when the use of such algorithms constitutes harm to competition. Companies who choose to use a pricing algorithm should consult antitrust lawyers to ensure their use of these algorithms is not perceived as an agreement to fix prices. Companies should also ensure that policies are in place to prevent any perception of price-fixing and should carefully monitor the use of pricing algorithms. In particular, large companies with market power should be careful to avoid perceptions that pricing algorithms are being used to unfairly disadvantage rivals.

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