Algorithmic Pricing – The "New Frontier" of Antitrust Law

Artificial intelligence is becoming increasingly present in our everyday lives – including as a tool for dynamic pricing of many consumer products and services. Among the many lawyers grappling with the potential effects of AI are government antitrust enforcers and plaintiffs' class action lawyers. Their current focus is on algorithmic pricing software programs used in various sectors of the real estate market – thus far, residential leasing and casino hotels. The premise of this focus is that, because algorithmic pricing programs facilitate information sharing among competitors in real time, they threaten to become the key price-fixing tool in the digital era. An oft-cited concern is that algorithmic pricing tools automate collusion among competitors without leaving a paper trail. The "smoke-filled rooms" of the last century have been replaced by computers churning through automated data feeds and generating results without human interference.

The real estate industry has become a prime target of this wave of activity given its widespread use of algorithmic pricing. A host of federal antitrust cases against the leading software company RealPage and many of its clients in the multifamily housing field are pending in Tennessee, and the Department of Justice (DOJ) has now opened an investigation into RealPage and filed a Statement of Interest in the RealPage action, referring to algorithmic pricing as the "new frontier" of price fixing, and arguing that "[a]utomating an anticompetitive scheme does not make it less anticompetitive."[1].

The RealPage plaintiffs stress the fundamental need for housing, urging remedial action in an era where opinions about housing availability, gentrification, and displacement regularly appear in newspapers and dominate online conversations. Similar cases are also pending against casino hotel operators in industry hotbeds like Las Vegas and Atlantic City. And the District of Columbia Attorney General has now brought the first state law challenge to algorithmic pricing against RealPage and its customers in D.C.[2]

Given the debate raging around AI at large, it is hardly unexpected that reactions to algorithmic pricing run the gamut. Opponents of the trend point out that the software might enable coordination among providers to drive up prices, especially in vital industries like multifamily housing. Supporters of algorithmic pricing stress the cost savings that can be passed onto consumers and also note that algorithmic pricing can actually expand the ways in which producers can compete.

Who is being sued and where?

Plaintiffs' lawyers launched the initial major offensive against algorithmic pricing in the real estate industry in 2022 with a class action case against RealPage and others. RealPage developed software that collects property owners' and managers' data and enables it to be used

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1 Statement of Interest of the United States, ECF No. 628, *In re: RealPage, Inc. Rental Software Antitrust Litigation*, No. 3:23-MD-3071 (M.D. Tenn. Nov. 15, 2023).

2 *District of Columbia v. RealPage et al.* (D.C.Super. Ct. Nov. 1, 2023).

for pricing and inventory strategies that it shares with its clients. The first case was filed in federal court in California on October 18, 2022 against RealPage and nine of its clients. Since then, more than four dozen cases have been filed and they have been consolidated into a multidistrict litigation in the Middle District of Tennessee. *In re Realpage, Inc. Rental Software Antitrust Litig.*, No. 3:23-md-03071 (M.D. Tenn.). This litigation is still in the early stages. Defendants have filed motions to dismiss, the majority of which are still pending. But the plaintiffs' bar has expanded its targets to include other software programs used by property managers, filing a class action against Yardi Systems—which developed another pricing software tool for apartment rentals—and 18 property management companies. *Duffy, et al. v. Yardi Sys., Inc.*, et al., No. 2:23-cv-1391 (W.D. Wash.).

Adding heft to this effort, the DOJ opened an investigation into RealPage last year and on November 15 it filed a Statement of Interest in the RealPage litigation, arguing that "software algorithms can be employed to fix prices—and this modern machinery may be easier and more effective than past methods of price fixing." On November 22, defendants replied, claiming that DOJ's statement of interest contains allegations regarding concerted conduct that are absent from the complaint and impermissibly attempts to expand the antitrust laws.

As with many other waves of antitrust litigation, state attorneys general look primed to get in on the action, too. On November 1, the District of Columbia Attorney General filed an action against RealPage and a dozen landlords and property managers in the Superior Court of D.C. The suit solely alleges violations of the D.C. Antitrust Act, in an apparent effort to keep the case out of the federal multidistrict litigation. State attorneys general are increasingly active players in the antitrust enforcement and consumer protection in recent years, and this marks the first algorithmic pricing antitrust suit by a state AG. But it is unlikely to be the last.

Two putative class action lawsuits have also been filed against casino-hotel operators in Las Vegas and Atlantic City. *Gibson et al. v. MGM Resorts International et al.*, No. 2:23-cv-00140 (D. Nev.) and *Altman et al. v. Caesars Entertainment, Inc. et al.*, No. 2:23-cv-02536 (D.N.J.). These casino-hotel operators used algorithm software programs created by Rainmaker Group Unlimited to price their hotel rooms. The Nevada court granted defendants' motion to dismiss the antitrust claim, finding plaintiffs had failed to allege essential details about a conspiracy or that all of the defendants even used the same pricing software. But plaintiffs have returned with a vengeance, filing a 250-page amended complaint, adding several new defendants, and asserting that the conduct at issue is "virtually identical" to RealPage's, signaling confidence in intertwining these cases' fates.

What are the claims?

The classic example of an antitrust conspiracy is an agreement among competitors to fix prices—that is, to work together to raise prices above where the invisible hand of the market would naturally place them. Price fixing schemes typically include an agreement among the competitors to increase or stabilize prices and not to undercut one another in the marketplace. Plaintiffs in the real estate algorithmic pricing cases generally allege that defendant property owners and managers use the same proprietary pricing software programs as a means to conspire to fix and maintain pricing for rentals without leaving a paper trail. Plaintiffs claim that the programs entail competitors sharing proprietary price, occupancy, and inventory information

with the software company, which algorithmically generates rental prices and rental unit supply strategies that property owners and managers almost uniformly apply. According to Plaintiffs, these alleged conspiracies have resulted in record high rental prices and reduced rental housing supply. Plaintiffs also claim that defendant property owners and managers discuss confidential rental pricing with one another, including through webinars, roundtables, and conferences hosted by the software companies for their property owner and manager clients.

The algorithmic pricing software antitrust cases have the potential to affect a wide swath of real estate markets. By way of example, RealPage's clients allegedly comprise nearly 90% of the U.S. market for multifamily rental housing units.

Is Algorithmic Pricing Procompetitive or Anticompetitive?

Given algorithmic pricing's recent vintage, there is no consensus among policy makers, enforcers, or courts on whether this device is inherently anti- or pro-competitive, including in the real estate sector. But the Department of Justice has highlighted the risks associated with AI, noting that businesses increasingly turn to algorithms to make decisions about product development, pricing, and other matters.[3]

Plaintiffs point to unique characteristics of the multifamily rental housing market to suggest that it is especially vulnerable to price fixing via algorithm. First, plaintiffs posit that the market itself is highly concentrated and has high entry barriers, so existing owners and managers face little pushback from tenants when they raise prices. Second, switching costs are high for renters—who enjoys the process of moving?—and thus plaintiffs claim that the demand for housing does not significantly change in response to changes in rental prices. Third, rental housing units are largely interchangeable from the perspective of renters who need housing. Fourth, Plaintiffs claim that property owners and managers have the motive and the opportunity to collude on pricing.

In contrast, the most frequently-cited procompetitive benefit of algorithmic pricing is that it lowers property owners' and managers' operating costs and increases efficiency.[4] Previously, individual owners and managers had to manually review large swaths of rental data, including their own, to determine their pricing and inventory strategies. Algorithmic pricing drastically reduces the resources needed to determine prices, and owners and managers can pass their cost savings on to renters. Moreover, algorithms can expand the features on which owners and managers compete because they can compare far more variables relevant to pricing in far less

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[3] Principal Deputy Assistant Attorney General Doha Mekki, Speech (Feb. 2, 2023), https://www.justice.gov/opa/speech/principal-deputy-assistant-attorney-general-doha-mekki-antitrust-division-delivers-0.

[4] OECD, *Algorithms and Collusion: Competition policy in the digital age*, at 15 (2017), https://www.oecd.org/daf/competition/Algorithms-and-colllusion-competition-policy-in-the-digital-age.pdf).

time than human employees.[5] A core principle of free market competition is that firms adjust pricing in response to their competitors' prices, and pricing algorithms enable owners and managers to respond to changes in their competitors' rental prices almost instantaneously.[6]

What Does The Future Hold?

Algorithmic pricing is a relatively new phenomenon driven by recent improvements in AI technology. Firms spanning the rental housing, hospitality, ride-sharing, airline, insurance, and e-commerce industries have adopted tools for dynamic pricing relying on algorithms.[7] The corresponding decrease in operational costs and increase in responsiveness to competitive forces, among other benefits, make algorithmic pricing an attractive tool.

The wave of litigation and enforcement activity in this field, especially the DOJ's Statement of Interest in the RealPage MDL, suggests that antitrust law is working to adapt and update its principles to respond to this new technology. Under current law, for example, defendants have asserted that, absent actual evidence of collusion with a competitor, an individual firm's decision to rely on an algorithm for its pricing policies should be considered unilateral conduct that falls outside the reach of the antitrust laws.[8] While establishing proof of collusion is a common issue in information exchange cases, the almost total absence of human intervention in pricing algorithms exacerbates plaintiffs' and enforcers' challenges in establishing that competitors knowingly agreed to fix prices.[9] And current legal frameworks for proving collusion involve mental states, such as intent, that appear to be inapplicable to the automated actions of pricing algorithms.[10]

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5 *Id.* at 17.

6 Directorate for Financial and Enterprise Affairs Competition Committee, *Algorithms and Collusion – Note by the United States*, OECD, at 3 (May 26, 2017) (https://one.oecd.org/document/DAF/COMP/WD(2017)41/en/pdf)

7 Cem Dilmegani, *6 Dynamic Pricing Examples in 2023: Despite Criticism*, AIMultiple (Oct. 10, 2023), https://research.aimultiple.com/dynamic-pricing-examples/.

8 Directorate for Financial and Enterprise Affairs Competition Committee, *Algorithms and Collusion – Note by the United States*, OECD, at 3 (May 26, 2017) (https://one.oecd.org/document/DAF/COMP/WD(2017)41/en/pdf).

9 "For example, if multiple competing firms unknowingly purchase the same software to set prices, and that software uses identical algorithms, this may effectively align the pricing strategies of all the market participants, even though they have reached no agreement." *Id.* at 6.

10 Terrell McSweeny & Brian O'Dea, *The Implications of Algorithmic Pricing for Coordinated Effects Analysis and Price Discrimination Markets in Antitrust Enforcement*, 32 Antitrust 75, 75 (2017) (quoting Salil K. Mehra, *Antitrust and the Robo-Seller: Competition in the Time of Algorithms*, 100 Minn. L. Rev. 1323, 1352 (2016).

But federal and state antitrust enforcers have algorithmic pricing in their crosshairs and are actively taking steps to curtail their potentially anticompetitive effects moving forward. At this year's ABA Antitrust Law Spring Meeting, the DOJ and the Federal Trade Commission (FTC) announced that they are already researching how algorithms work, hiring experts to help detect algorithm-based anticompetitive conduct, and developing new guidance about the antitrust risks associated with algorithmic pricing. The DOJ and the FTC recently withdrew long-standing policy guidance on permissible forms of information sharing among competitors via third-parties, reasoning that the rise of data aggregation, machine learning, and pricing algorithms increase the competitive sensitivity of historical data.

How Should Companies Respond to this Wave?

Any firm that uses or is considering using algorithmic pricing should understand the potential legal risks associated with this tool, especially the use of proprietary information from competitors to set prices, and should consider the ways in which they are deploying such technologies. Firms should consider revising compliance policies, providing clearer direction to employees involved in pricing and competitive analysis, and staying current with legal developments.

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