

# Caps on Apps:

Why Fee Caps On Food Delivery Platforms Won't Help (and Will Likely Hurt) Small Restaurants

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## Summary

Many digital platforms such as eBay, Uber, and Airbnb are multi-sided marketplaces that connect buyers with sellers, riders with drivers, and guests with hosts. Balancing the interests of very different users on both sides of a marketplace is a challenging process. However, despite evidence of platforms' continuing efforts to effectively balance supply, demand, pricing, offerings, and service quality, concerns that marketplace operators mistreat, abuse, or exploit participants on one side of the marketplace have triggered competition investigations and legislative efforts in several jurisdictions.

A recent example of such regulation occurred in New York City, where the City Council, to "help ensure the survival" of local restaurants, passed a new law that caps delivery services' fees on restaurants: 15 percent per order for delivery, and 5 percent per order for all other services except payment processing fees. However well-intentioned these caps may be, economic research shows that price cap policies frequently backfire and may harm the very stakeholders they were supposed to protect. Specifically, in the restaurant delivery domain, one very recent study found that fee caps resulted in fewer orders to independent restaurants and more orders to chain restaurants – presumably the opposite of what legislators intended.

The fee cap policies in New York and elsewhere offer cautionary tales of how policymakers who ignore economics and empirical research when regulating emerging technologies and marketplaces can harm constituents. It would be preferable for policymakers to use their oversight power to learn about new markets and then encourage market-driven solutions (e.g., tiered fees), that are dynamic and evolve with the industry and are not confined to a particular geographic area.

This paper reviews some of the available research on the regulation of multi-sided marketplaces, as well as some specific aspects of the New York City fee cap law on delivery apps operating in the city. It concludes that government-imposed fee caps – with rare exceptions – are bad policy.

Lawmakers in New York and other localities aiming to improve market conditions for smaller restaurants should instead consider policies that (1) promote platform competition (including by reducing barriers to entry for new delivery services and encouraging consumers and restaurants to use several platforms) and (2) provide direct support to smaller restaurants.

## Background: What is a Multi-Sided Platform?

Many digital platforms function as matchmaking marketplaces between two or more sides, making them “multi-sided”; for example, eBay matches buyers and sellers and Uber matches riders and drivers. Multi-sided platforms create rules and fee structures for participants looking to be matched. However, unlike a government regulator that defines rules of engagement between different stakeholders, a non-government platform is directly involved in the business too, as it earns commissions, fees, and other revenues paid by participants. Balancing the interests of platform participants is a fundamental and dynamic process that all multi-sided platforms must manage.

## The Economics of Multi-Sided Platforms

Economists have shown that setting different fee levels and structures to the different platform sides (referred to as “asymmetric treatment”) is a natural market outcome. For example, more diner participants on a food delivery platform can attract more and better restaurants to participate, and more and better restaurants can attract more diners. A certain degree of scale can allow the platform to provide additional services that benefit restaurants, such as expanded marketing services, analytical insights on key performance indicators, more efficient delivery, and loyalty programs to incentivize consumers to return. These “positive spillover” effects motivate delivery platforms to subsidize the more price-sensitive side of their marketplaces (i.e., diners) and collect commissions and fees from the other side (i.e., restaurants).[1] Sometimes, the subsidized side even obtains the platform's service for free or receives rewards for joining or using the platform. This is the case, for example, with the OpenTable restaurant reservations platform, which subsidizes diners and is paid by restaurants.

However, such asymmetric treatment of the two sides does not necessarily mean that one side benefits at the expense of the other, because more users on one side – buyers, for example – could make the platform more valuable to participants on the other side – sellers in this case. As a result, sellers sometimes prefer that a platform subsidizes buyers. In general, asymmetric treatment of buyers and sellers does not imply a reduction in economic efficiency nor in the total benefits of buyers, sellers, and the platform.

However, ongoing controversies and debates related to multi-sided platforms or marketplaces – intensified by the COVID-19 pandemic – raise the concern that large platforms may mistreat, abuse, or exploit just one side of the platform, or a subset of that side. For example:

- some merchants are frustrated by the amount of transaction fees and anti-steering clauses of major credit card companies [2],
- some app developers complain about the rules concerning and amount of commission fees on Apple's iOS ecosystem [3],
- some third-party sellers claim that their contracts with e-commerce platforms include unfair terms [4],
- some legislators responded to frustrations of ride-sharing platform drivers by introducing bills requiring platforms to treat drivers as employees rather than contractors [5], and
- some delivery workers reportedly felt squeezed by platform algorithms [6].

These complaints from one side of a platform suggest that even if asymmetric treatment of buyers and sellers is economically driven, the economic forces underlying the asymmetric treatment – namely the economic spillovers or so-called “indirect network effects” across the two sides – could be a double-edged sword. On the one hand, the positive effects of asymmetric treatment enable economies-of-scale in buyer-seller coordination; on the other, the more attractive a large platform becomes to buyers, the more likely it is that the platform enjoys, and could exploit, “gatekeeper” power over sellers.

It is certainly true that sellers - though they always have the choice - may not appreciate the value of asymmetric treatment and may only begrudgingly use a large platform that charges higher fees or imposes stricter rules on them, especially when no other platforms offer similar access to the buyer base. A few policy reports even argue that positive spillover effects exacerbate asymmetric treatment between the two sides and may also strengthen the market power of a leading platform in the long run.[7] Indeed, this concern has triggered antitrust investigations and legislative efforts to regulate large platforms in different countries [8], despite a paucity of empirical evidence of market power abuse and economic analysis indicating that buyers and sellers are better off when asymmetric treatment occurs. Such government efforts to regulate multi-sided platforms are discussed in the next section.

# Regulating Multi-Sided Food Delivery Platforms

The COVID-19 pandemic has accelerated legislative efforts pertaining to multi-sided marketplaces. This has resulted in a number of U.S. cities enacting caps or ceilings on the commission fees that on-demand delivery platforms such as DoorDash, Uber Eats, and Grubhub can charge to independent restaurants. In two cities, those caps, which were originally intended as temporary emergency pandemic measures, have been made permanent.[9] New York City's temporary cap on delivery platforms' fees, which was recently made permanent, prohibits delivery services from charging restaurants more than 15 percent per order for delivery and more than 5 percent per order for all other fees except payment processing fees.[10] These fee caps were enacted despite economic research showing that such policies can backfire and harm the very restaurants they aim to protect.[11]

How do on-demand food delivery multi-sided platforms work and add value to the participants? They aggregate large numbers of hungry consumers, present restaurant options to the consumer, collect buyer orders via mobile apps, transmit the orders to restaurants, and provide delivery personnel who pick up and deliver the food to buyers. For consumers, on-demand delivery platforms offer convenient access to food from a variety of restaurants. For restaurants, the platforms provide access to a broader customer base, marketing tools to attract consumer attention and encourage orders, and efficient delivery with no upfront costs (e.g., hiring delivery personnel). For providing the above services, delivery platforms charge fees on both the consumer and restaurant sides of the marketplace.

Given significant competition among delivery platforms, including between market leaders DoorDash, Uber Eats and Grubhub, it is no surprise that these platforms are driven by market forces to lower fees on the consumer side of the equation. In order to pay for their substantial costs to facilitate a delivery network, restaurant fees on the platforms can be as high as 30 percent of order amounts, depending on the suite of platform services that restaurants choose. [12] However, the marketplace of available delivery platforms – including those serving smaller niches like pizza-only delivery – is still evolving, and some entrant platforms to the on-demand food delivery market are exploring new business tactics, including charging restaurants fixed monthly fees in lieu of per-order commissions.[13]

In addition to the all-inclusive flat-fee approach, many on-demand delivery platforms now offer restaurants a choice of whether to pay more of the costs associated with their food deliveries or shift some or all of the costs to their customers. For instance, in 2021, DoorDash introduced a

a tiered fee model (Basic, Plus, Premier) with commissions ranging from 15-30 percent, each offering a different level of service pertaining to marketing radius, delivery radius, and other features such as inclusion in the DashPass consumer-loyalty offering.[14] This market-driven approach enables sellers to self-select into the service category and fee structure that suits them best, and, crucially, enables platforms to compete with each other on each service tier. This produces increased competition among all on-demand delivery platforms, which economic research indicates is favorable to marketplace participants.[15]

In the view of many economists, market-driven solutions like tiered fees are generally preferable for several reasons: they are dynamic and evolve with the industry, they are guided by market forces, and they are not confined to a particular geographic area. This is in stark contrast to the more static, lesser-informed nature of regulating still-evolving markets locally.

## NYC Food Delivery Platform Regulation: Specific Considerations

In New York City in particular, there are important distinctions between on-demand food delivery platforms and other large digital platforms that have attracted regulatory attention.

- First, the market for on-demand delivery is far from settled or concentrated. In addition to numerous platforms entering and exiting, there is a significant number of substantial incumbents, including DoorDash, Uber Eats, Grubhub, and ChowNow.
- Second, the barriers to entry in on-demand food delivery are significantly lower, e.g., a local pizza shop can utilize the pizza-specific delivery app [Slice](#), or even use off-the-shelf tools to offer its own app for on-demand local delivery. As a result, new entrants are continuing to emerge.[16]
- Third, consumers and restaurants can relatively easily use multiple on-demand delivery platforms (“multi-homing”), and many do so.
- Fourth, on-demand food delivery platforms face competitive pressures from other platforms operating in closely adjacent and still evolving spaces, including on-demand delivery platforms of groceries and other convenience products, (e.g., GoPuff, Jokr, Gorillas, and Getir), and “scheduled food delivery” sellers such as Freshly (now part of Nestlé), HelloFresh, Go Fresh, Blue Apron, and Sunbasket.

# Economics 101: Why Delivery Fee Caps Hurt Independent Restaurants

Researchers have recently considered local regulations that impose caps on the commission fees that on-demand delivery platforms can charge smaller independent restaurants.[17] They found that while a commission fee cap may appear to benefit smaller restaurants by allowing them to retain a larger revenue share, such regulations are also likely to create substantial downstream effects that may hurt those very same restaurants. In particular, a commission fee cap is bound to induce responses from on-demand delivery platforms, who may raise fees on consumers, reduce efforts to promote smaller independent restaurants, and increase efforts to support chain and out-of-town restaurants for which the fee caps do not apply.

More specifically, researchers examined restaurant performance across the leading U.S. on-demand delivery platforms to quantify the effects of commission fee caps imposed in 14 U.S. cities. The data covered more than 200,000 restaurants, including more than 60,000 chain restaurants, and the studied platforms had about 90 percent market share during the period examined.[18] The researchers' data indicates that 51 percent of chain restaurants operate on the delivery platforms compared to only 33 percent of independent restaurants. The study utilized additional data on restaurant foot traffic and length of customers' stay inside restaurants (to measure demand by customers staying a very short time interval and thus not dining in), as well as aggregate weekly restaurant transaction data to determine the fraction of revenues that comes through the delivery platforms versus the restaurants' own sales channels.

Recognizing that different cities enacted fee caps at different times, the researchers used a statistical framework that compares the performance differences between restaurants in "treated" cities (with mandatory caps) and a control group of restaurants in cities without caps. The researchers found that restaurants in cities with mandatory fee caps experience a 1.4 percent reduction in customer orders. However, this aggregate decrease commingles two effects: some restaurants benefited from increased demand after the fee caps were imposed, whereas others were harmed. In particular, chain restaurants in the regulated cities benefited, with their delivery demand rising by 3.6 percent relative to the control group. In contrast, independent restaurants in regulated cities incurred a 6.8 percent reduction in delivery demand, coupled with reductions in their overall revenues and net profits, as well as across their different sales channels, including direct sales, platform sales, and takeout sales.

To summarize, independent restaurants in regulated cities saw reduced food orders and revenues, whereas chain restaurants, not subject to the fee caps, gained food orders and revenues. Put differently: Chain restaurants – not independent restaurants – benefited from the commission fee caps imposed across 14 cities.

The research also documents delivery platforms responding to the fee caps by adjusting their recommendations of independent restaurants, as the platforms chose instead to promote unregulated chain restaurants or restaurants from nearby non-regulated cities to consumers. As expected, consumer delivery fees in regulated cities also increased. Consequently, constituents in the regulated cities, and the very stakeholders the caps aimed to protect, ended up being harmed by the policies meant to protect them.[19]

## The Benefits of Competition in Multi-Sided Markets

On-demand food delivery platforms are not unique in charging the buy-side lower fees than the sell-side. Many platforms like search engines, broadcast media, and social media use sell-side fees to subsidize individual consumers' free and low-cost services. Other platforms such as cash-back referral websites and credit cards offer so-called "negative prices" where consumers are paid because their participation is so valuable. To support such prices and subsidies, the platforms must earn revenues from their other sides (e.g., advertisers, sellers, and retail merchants).

When policymakers get involved because some platform participants are complaining about high prices, a natural question is whether competition and/or other economic forces – without regulation – can curb the high fees, e.g., restaurant delivery fees. Economic research demonstrates that the answer is yes.[20] Specifically, research shows that a leading multi-sided platform's ability to impose costs on sellers can be limited by the fact that sellers may shift more of their sales, or more of their higher quality service or products, to a competing platform. In particular, researchers find that in geographic areas where a leading platform faces more competition from another platform, the leader's ability to impose costs on sellers is more limited. That is, viable platform competition can limit a platform's incentives to appeal to the buyer side by raising costs on the seller side. Put differently, competition can limit a platform's ability to raise sellers' fees, because sellers have options.

## Conclusions

Economists have long recognized that caps on prices can create undesirable impacts. In one poignant example, this has been shown in the pharmaceutical market for generic cancer-treating drugs, [21] where a policy that aimed to reduce costs resulted in manufacturers ceasing to produce generic cancer-treating drugs.

The policy, which was part of the Medicare Prescription Drug Improvement and Modernization Act of 2003, effectively capped the prices of generic drugs. The disastrous result was that drug manufacturers shifted production capacity to significantly more expensive drugs – \$90,000 per patient per year – and away from moderately less effective generic alternatives that cost as little as \$3 per dose but were rendered unavailable.

If the market operated without the imposed caps, a shortage in generics would have caused their prices to rise to the point where other manufacturers would have been induced to produce more generics. But instead, price caps essentially shut down the generics and patients were stuck.

It is of little surprise then that for on-demand delivery platforms, which have so many tools to treat different sellers and buyers differentially, almost any regulation addressing one platform aspect would be undermined by the platforms resorting to changes in other service aspects. Instituting a fee cap is therefore bound to lead to unintended downstream effects – effects that can lead to the policy backfiring by harming not only the very restaurants a fee cap aims to protect, but also other constituents such as consumers.

The empirical findings in the economic literature highlight the complex dynamics of regulating multi-sided platforms and have immediate implications for policymakers. Although a policy that imposes a fee cap may aim to protect the interests of smaller independent restaurants, policymakers should proceed with caution, as such an indirect policy to support smaller restaurants can do the opposite.

The economic literature provides insights into the variety of unintended effects of such regulations, which arise because platforms are profit-maximizing actors that are simultaneously seeking to balance the incentives of very different sets of marketplace participants.

At the same time, economic research suggests that non-regulatory mechanisms – in particular, platform competition – can limit a platform's incentives to raise sellers' fees. It stands to reason that policymakers should appreciate that the on-demand food delivery market is served by

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multiple competing platforms, with a number of additional platforms in development. Policymakers should nurture such competition, and consider policies that enhance competition among platforms, as more effective ways to protect restaurants in comparison to fee caps. Policymakers should also consider supporting smaller restaurants directly in the short term, including through forgivable loans and grants.

## About the Author

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## References

[1] For example, Cailaud and Jullien (2003), available at <https://www.jstor.org/stable/1593720>, show that platforms may adopt a strategy of subsidizing participation on one side and raising costs on the other. Rochet and Tirole (2003), available at <https://academic.oup.com/jeea/article/1/4/990/2280902>, and Armstrong (2006), available at <https://onlinelibrary.wiley.com/doi/10.1111/j.1756-2171.2006.tb00037.x>, show that the degree of asymmetry in the two sides' costs may depend on how much positive spillovers one side could generate for the other, and to what extent users may switch to outside options in response to a price increase. Armstrong (2006) further shows that when one platform side (e.g., buyers) single-homes and the other side (e.g., sellers) multi-homes, competition can push platforms to subsidize the side that is more likely to single-home. In the on-demand economy, this means that if buyers each tend to utilize one delivery platform, platforms may be induced to compete more aggressively on their buyer side, lowering buyers' costs and raising fees on their seller side. That is, this is a natural outcome of competition. Empirically, Jin and Rysman (2015), available at <https://www.jstor.org/stable/44077377>, find that platforms change their asymmetric treatment in pricing between their buyer and seller sides in response to competition, and the degree of platforms' response depends on the ease of multi-homing on each of the sides.

[2] See, for instance, <https://www.justice.gov/file/485746/download> for the District Court decision in US vs. American Express, 2015.

[3] See, e.g., Spotify's complaint regarding Apple's "tax" on subscription payments, <https://rb.gy/ywyxpg>.

[4] See, e.g., the Paris Commercial Court's ruling on Amazon-seller contracts, <https://rb.gy/p0mwrk>.

[5] California Assembly Bill 5 and California Proposition 22, as well as the UK's Supreme Court; see, e.g., <https://rb.gy/uv8k7l>.

[6] As reported on NPR news in 2019; see, e.g., <https://rb.gy/dipgss>.

[7] See, for instance, the 2019 expert report to the UK government led by Professor Jason Furman (titled "Unlocking digital competition, Report of the Digital Competition Expert Panel," available at <https://www.gov.uk/government/publications/unlocking-digital-competition-report-of-the-digital-competition-expert-panel>); the 2019 report to the European Commission by Professors Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer (titled "Competition policy for the digital era," available at <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>); and the 2019 Stigler report by over 30 experts, available at <https://www.chicagobooth.edu/research/stigler/news-and-media/committee-on-digital-platforms-final-report>.

[8] See, for example, a number of policies efforts at the European Union, including the Digital Markets Act (DMA), [https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en); the European Union's Digital Services Act (DSA), <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>; as well as a number of US Congressional and Senate bills, <https://www.nytimes.com/2022/01/20/technology/big-tech-senate-bill.html>.

[9] The cities include San Francisco, Seattle, Washington, DC, Jersey City, Santa Monica, New York City, Los Angeles, Philadelphia, Portland, San Leandro, Berkeley, Fremont, and Oakland.

[10] The New York City Commission's bill is available at: <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=5116226&GUID=C266469A-2803-4C77-ACD2-ACCFA711B12D&Options=ID%7CText%7C>.

## References

[11] See Li and Wang (2021), available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3871514](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3871514).

[12] See, e.g., <https://www.forbes.com/sites/forbesfinancecouncil/2020/05/04/why-food-delivery-companies-may-be-doing-more-harm-than-good-and-how-restaurants-can-fix-it/?sh=3baff2091b3b>. See, also, for instance, the suite of services offered by DoorDash, <https://doordash.news/company/the-impacts-of-price-controls/>.

[13] See, for example, an entrant platform named Sesame, <https://www.restaurantbusinessonline.com/technology/commission-free-delivery-startup-sesame-raises-34m>.

[14] <https://www.restaurantbusinessonline.com/technology/doordash-unveils-tiered-pricing-plan-restaurants>.

[15] See Kim, Wagman and Wickelgren (2018), available at <https://onlinelibrary.wiley.com/doi/10.1111/jems.12285>.

[16] Ibid.

[17] Supra note 10.

[18] See, e.g., <https://www.cnn.com/2019/11/21/doordash-continues-to-lead-in-the-food-delivery-wars.html>.

[19] This finding is not limited to Li and Wang (2021). For instance, Hunold, Kesler and Laitenberger (2020), available at <https://pubsonline.informs.org/doi/abs/10.1287/mksc.2019.1167>, find an analogous result regarding online travel platforms, where a policy that aims to protect smaller independent hotels ends up backfiring.

[20] See Jia, Jin and Wagman (2021), <https://www.nber.org/papers/w28878>.

[21] See <https://www.nytimes.com/2011/08/07/opinion/sunday/ezekiel-emanuel-cancer-patients.html>.

[22]